

# 2011 Product Catalog



Wireless PoE Hotspot Gateway

Ethernet/KVM Switch

Internet Broadband

Wireless Network

IP Surveillance

Power over Ethernet

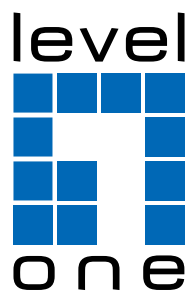
Power Line Communication

Audio/Video Extension

Fiber Optical Connection

Voice over IP

Storage



LevelOne was established in 1991 in Dortmund, Germany by Digital Data Communications GmbH. By providing quality networking products and solutions, we've grown steadily throughout the years with Branch Offices in 20 countries around the world. The Internet has become a deeply integral part of both business and home life. Our years of experience have taught us that the only way to stay on top of the latest technology and trends is by listening carefully to what the customer says.

DDC is headquartered in Germany, and also maintains branches in Taiwan, Australia, Belgium, Brasil, Colombia, Denmark, East Africa, Greece, India, Italy, Israel, Middle East, North Africa, the Netherlands, Portugal, Slovenia, Spain and Sweden. We are currently achieving year-on-year increase in turn-over. Our Production, Development, Distribution and Logistic Centers are growing in number and setting new quality standards throughout the world with powerful and recognizable brand names.

Please take a look through this catalog and if you have any questions or inquiries you can contact us at

**[sales@level1.com](mailto:sales@level1.com)**

# Contents

## Home

page 3

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- Ethernet Switches
- Broadband/ADSL2 Routers
- Network Adapters
- Antennas
- Wireless Solutions
- Network Cameras
- Storages
- HomePlug Powerline Adapters
- Docking Station
- KVM Switches/Consoles/Extenders
- VoIP (Voice over IP) Solution
- Bluetooth Communication

## Business

page 23

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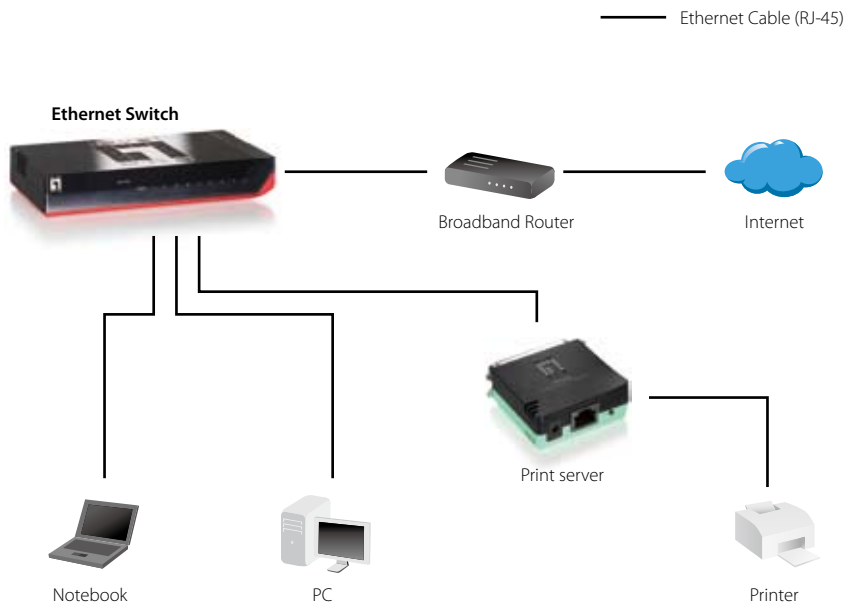
- Ethernet Switches
- Media Converters
- Fiber Optical Transceivers
- IP Power Switch
- Broadband Routers and Gateways
- Network Adapters and Boosters
- Wireless Bridges/Access Points/Antennas
- Wireless Solutions
- Network Cameras
- Video Servers/Captured Cards/Network Video Recorders
- IP Surveillance Software
- KVM Switches/Consoles/Extenders
- PoE PD/PSE/Repeaters
- Power over Ethernet (PoE) Solutions
- Audio/Video Extenders
- IP Audio Broadcasting
- Print Servers
- Voice over IP (VoIP) Solutions



<u>Ethernet Switches</u>	<b>04</b>
<u>Broadband/ADSL2 Routers</u>	<b>05-07</b>
<u>Network Adapters</u>	<b>08-10</b>
<u>Antennas</u>	<b>11</b>
<u>Wireless Solutions</u>	<b>12-13</b>
<u>Network Cameras</u>	<b>14-15</b>
<u>Storages</u>	<b>16-17</b>
<u>HomePlug Powerline Adapters</u>	<b>18-19</b>
<u>Docking Station</u>	<b>19</b>
<u>KVM Switches/Consoles/Extenders</u>	<b>20-21</b>
<u>VoIP (Voice over IP) Solution</u>	<b>22</b>
<u>Bluetooth Communication</u>	<b>22</b>

## LevelOne Ethernet Switches

Allowing users to either create a Local Area Network (LAN) or connect additional network devices, such as network cameras, storage devices or print servers. The built-in store-and-forward architecture filters errors and forwards packets in a non-blocking environment.



### Unmanaged Fast Ethernet Switches



#### FSW-0508TX / FSW-0808TX 5/8-Port Fast Ethernet Switch

- 5 or 8 ports switches providing Fast Ethernet connectivity to a small network
- Features store-and-forward architecture
- Performs filtering and forwarding at non-blocking full wire-speed
- Auto-MDI-X function for unlinking at each port
- Front-panel diagnostic LEDs
- Supports power saving mode by cable detection
- Magnetic base for secure placement on any metal surface

### Unmanaged Fast Ethernet Switches



#### FSW-0511 / FSW-0811 5/8-Port Fast Ethernet Switch

- Features store-and-forward architecture
- Performs filtering and forwarding at non-blocking full wire-speed
- Full/Half-duplex capability on each TX port for 200Mbps bandwidth at each port
- Auto MDI-X function for unlinking at each port
- Provides power consumption of 2.8 Watts (FSW-0511)
- Provides power consumption of 4.1 Watts (FSW-0811)

### Unmanaged Gigabit Ethernet Switches



#### GSW-0506 / GSW-0806 5/8-Port Gigabit Switch

- Supports auto-MDI/MDI-X, auto-negotiation and duplex modes on each port
- Complies with IEEE 802.3, 802.3u, 802.3ab and 802.3x
- Supports automatic DNS configuration
- Front-panel diagnostic LEDs
- Store-and-forward switching architecture
- Back pressure flow control for half-duplex
- Supports FCC class B, CE and VCCI



#### GSW-0507 / GSW-0807 5/8-Port Gigabit Switch

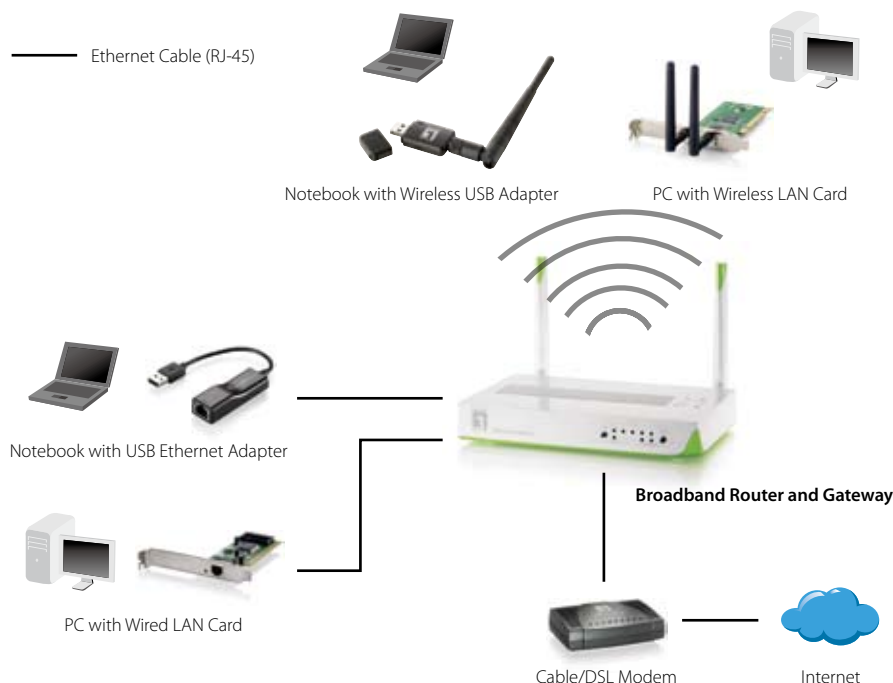
- Supports MDI/MDI-X auto crossover
- Provides half-duplex and full-duplex auto-detection
- Complies with IEEE 802.3, 802.3u, 802.3ab and 802.3x
- Provides wire-speed packet filtering and data forwarding
- Store-and-forward switching architecture
- Save up to 63% power with LevelOne Green Technology and supports 12K jumbo frame rate (GSW-0507)
- Saves up to 84% power with LevelOne Green Technology and supports 9K jumbo frame rate (GSW-0807)

### Ethernet Switches Comparison

Model	FSW-0508TX / FSW-0808TX	FSW-0511 / FSW-0811	GSW-0506 / GSW-0806	GSW-0507 / GSW-0807
Ports/Expansion	5/8 x 10/100TX	5/8 x 10/100TX	5/8 x 10/100/1000T	5/8 x 10/100/1000T
Slots MAC Table	1K	1K	8K	1/4K
Buffer Memory	48/96 KB	96 KB	104/128 KB	104/128 KB
Backplane	1.0/1.6 Gbps	1.0/1.6 Gbps	10/16 Gbps	10/16 Gbps
Power supply	External	External	External	External

## LevelOne Broadband/ADSL2 Routers

LevelOne Routers and Gateways are a great addition to any network. Either wired or wireless products, users can choose deployment from many options to easily share and manage network data.



### Wired Routers



#### FBR-1418TX Broadband Router

- Integrates with 4-Port Fast Ethernet switch: 10/100Mbps MDI/MDIX Auto-Sensing
- Provide 10/100Mbps WAN interface to connect with DSL or cable modem
- Built-in NAT function: allow multiple PCs and devices to share one Internet connection
- Built-in firewall to protect your local network
- VPN support: pass through of PPTP, L2TP, and IPSec
- Web-based interface configuration and management
- Easy to upgrade using Web or Windows Utility

### Wired Routers



#### FBR-1430 VPN Broadband Router

- Ideal broadband router for sharing Internet access
- Features an advanced built-in Firewall and VPN capability
- Multi-DMZ, Application and URL Filtering
- Provides PPTP and IPSec VPN support
- Create and securely connect to servers over the Internet via 10 secured VPN Tunnels
- Integrated 4-Port Fast Ethernet switch with UPnP, NAT and DHCP
- Web-Based Configuration and Management

### Wireless Router



#### WBR-6002 / WBR-6003 150Mbps Wireless Router

- Compatible with 802.11b/g/n wireless standards
- Auto-Channel selection to avoid interference from neighbors
- Simple wireless security with one-push WPS button
- Wireless signal on/off button
- Features built-in VPN pass-through, universal plug-and-play and advanced DDNS services
- Advanced dual firewall and full control of data traffic with Quality of Service (QoS)
- Easy step-by-step installation wizard
- Supports Wireless Internet Service Provider (WISP) connection (WBR-6002)
- Multi-SSID for guest access (WBR-6002)



#### WBR-6005 150Mbps Wireless Router

- Compatible with 802.11b/g/n wireless standards
- Integrates with 4-Port 10/100Mbps Ethernet switch
- Provides 1-Port 10/100Mbps WAN interface for Broadband Internet Access
- Wireless Security with WEP, WPA, WPA2 and 802.1x RADIUS support
- Supports L2TP Protocol
- Quick and Easy Setup Wizard
- Concurrent Network Address Translation (NAT) sessions up to 13,000

### Broadband Routers and Gateways Comparison

Model	FBR-1418TX	FBR-1430	WBR-6002 / WBR-6003	WBR-6005
Ethernet LAN	4 x 10/100Mbps	4 x 10/100Mbps	4 x 10/100Mbps	4 x 10/100Mbps
Ethernet WAN	1 x 10/100Mbps	1 x 10/100Mbps	1 x 10/100Mbps	1 x 10/100Mbps
Wireless Standards	-	-	11b/g/n	11b/g/n
Management	HTTP/SNMP	HTTP	HTTP/SNMP	HTTP



## Wireless Router



**WBR-6020**  
300Mbps Wireless Router

- 2 external and 1 internal antennas with 2T/3R MIMO technology for wireless data rates of up to 300Mbps
- Compatible with 802.11b/g/n wireless standards
- Saves power with scheduled sleep mode, active link detection and Wi-Fi disable button
- Simple security control with one-button WPS protection
- Quick and easy installation wizard
- Built-in firewall and Quality of Service (QoS)
- Features VPN pass-through, universal plug-and-play (UPnP), DDNS
- Concurrent Network Address Translation (NAT) sessions up to 20,000
- Saves power with LevelOne Green Technology



**WBR-6011**  
300Mbps Wireless Router

- 2 antennas with 2T/2R MIMO Technology for wireless data rates of up to 300Mbps
- Compatible with 802.11b/g/n wireless standards
- Auto-Channel selection to avoid interference from neighbors
- Wireless signal On / Off button
- Scheduled wireless On / Off
- Simple wireless security with one-push WPS button
- Advanced firewall and traffic priority features
- Supports WISP connection
- Easy Step-by-Step installation wizard



**WGR-6012**  
300Mbps Wireless Gigabit Router

- 2 external and 1 internal antennas with 2T/3R MIMO technology for wireless data rates of up to 300Mbps
- Compatible with 802.11b/g/n wireless standards
- 4 Gigabit Ethernet LAN ports
- Supports WEP, WPA, WPA2 and 802.1x for high level security
- Simple wireless security with one-push WPS button
- VPN pass-through for PPTP, L2TP and IPSec
- SNMP remote configuration management
- Saves power with LevelOne Green Technology

## Wireless 3G Router



**WBR-6800**  
150Mbps Wireless 3G Router

- Integrates with 1-Port Ethernet LAN: 10/100Mbps MDIMDI-X Auto-Sensing
- Provides 10/100Mbps RJ-45 or 3G (USB) WAN interface
- Auto-Fallback feature to ensure always-On connectivity
- Secured wireless with WEP, WPA or WPA2-PSK encryption
- Compatible IEEE 802.11b/g/n standards
- Built-in Firewall and Quality of Service functions
- Web-Based interface configuration and management
- Features Built-In VPN Pass-Through, Universal plug-and-play and Advanced DDNS Services
- Concurrent NAT sessions up to 12,000



**WBR-6801**  
150Mbps Wireless Portable 3G Router

- Share your 3G internet connection
- Compatible with 802.11b/g/n wireless standards
- Secured wireless encryption with WEP, WPA2-PSK
- Simple wireless security with one-push WPS button
- Great mobility to use everywhere
- Quick and easy installation wizard
- Accepts standard USB power

## HomeGuard Router



**WBR-6022**  
300Mbps Wireless HomeGuard22 Router

- 2 external and 1 internal antennas with 2T/3R MIMO technology for wireless data rates of up to 300Mbps
- Compatible with 802.11b/g/n wireless standards
- Easily create a home surveillance network
- Works well with LevelOne Network Cameras FCS-0010/0020/1030/1091/1101/3021; WCS-0010/0020/2030/1090 and NAS FNS-1020
- Single web portal to control Network Camera and NAS
- Build-in LevelOne DDNS Service account for Internet remote control
- Concurrent Network Address Translation (NAT) sessions up to 20,000

## Broadband Routers and Gateways Comparison

Model	WBR-6020	WBR-6011	WGR-6012	WBR-6800	WBR-6801	WBR-6022
Ethernet LAN	4 x 10/100Mbps	4 x 10/100Mbps	4 x 10/100/1000Mbps	1 x 10/100Mbps	-	4 x 10/100Mbps
Ethernet WAN	1 x 10/100Mbps	1 x 10/100Mbps	1 x 10/100/1000Mbps	1 x 10/100Mbps	-	1 x 10/100Mbps
Wireless Standards	11b/g/n	11b/g/n	11b/g/n	11b/g/n	11b/g/n	11b/g/n
Management	HTTP/SNMP	HTTP	HTTP/SNMP	HTTP	HTTP	HTTP/SNMP

## Wired Modem Routers



**FBR-1161A/B**  
ADSL2/2+ Modem Router with 1 USB Port

- Provides high-speed Internet access with ADSL2/2+ backward compatible to ADSL
- A 10/100Mbps and a USB port for LAN deployment
- NAT firewall with SPI mode, DoS Detection and access control supported
- Supports Virtual Private Network (VPN) pass-through and Dynamic Domain Name System (DDNS)
- Provides Quick Installation Wizard via USB connection and auto-scan ADSL setting
- Dual flexibility with plug-and-play



**FBR-1461A/B**  
ADSL2/2+ Modem Router with QoS

- Compact ADSL2/2+ compliant modem and router for high-speed Internet access and sharing
- ADSL2+ compatible for 24Mbps downstream and 1Mbps upstream speeds
- Provides robust firewall security with Denial-of-Service (DoS) attack prevention and SPI
- Features built-in VPN pass-through, UPnP and DDNS advanced features
- Provides Easy Sign-On (EZSO) configuration via web browser user interface
- Supports Quality-of-Service (QoS) for full control over incoming and outgoing data traffic

## Wireless Modem Routers



**WBR-6601**  
150Mbps Wireless ADSL2+ Modem Router

- High-speed broadband connection with ADSL2+
- Compatible with 802.11b/g/n wireless standards at network speeds of up to 150Mbps
- Integrated 4-Port Ethernet Switch, one port can be configured as a WAN interface
- Controls your bandwidth with Quality of Service (QoS)
- Supports wireless security including WEP, WPA/WPA2, and 802.1X
- Supports Wi-Fi Protected Setup (WPS) technology



**WBR-3601**  
54Mbps Wireless ADSL2+ Modem Router

- High-speed broadband connection with ADSL2+, up to 24Mbps
- 802.11b/g compliant Wireless Access Point, speeds up to 54Mbps
- Supports 64/128-bit WEP, WPA, WPA2 encryption for high level security
- Integrated 4-Port 10/100Mbps Ethernet Switch
- Firewall Security with DoS Prevention and URL Filtering
- Control your bandwidth with Quality of Service (QoS)



**WBR-3470A/B**  
54Mbps Wireless ADSL2+ VoIP Router (Annex A/B)

- High-speed broadband connection with ADSL2+
- Features 4 x 10/100Mbps LAN ports, 2 FXS ports to connect to analog phone and 1 FXO port to connect to a PSTN network
- Provides an all-in-one solution for Internet access, Internet calling and wireless Internet sharing
- Controls your bandwidth with Quality of Service (QoS)
- Supports VPN pass-through and compatible with SIP standard providing toll-quality Internet calls
- Provides robust firewall security for network protection
- DHCP server allocates up to 253 client IP addresses



**WBR-6600A/B**  
300Mbps Wireless ADSL2+ Modem Router (Annex A/B)

- 2 antennas with 2T/2R MIMO technology for wireless data rates of up to 300Mbps
- High-speed broadband connection with ADSL2+
- Compatible with 802.11b/g/n wireless standards
- Supports 64/128-bit WEP, WPA, WPA2 encryption for high level security
- Simple security with one-push WPS push button
- Integrated 4-Port Ethernet Switch, one port can be configured as a WAN interface
- Controls your bandwidth with Quality of Service (QoS)

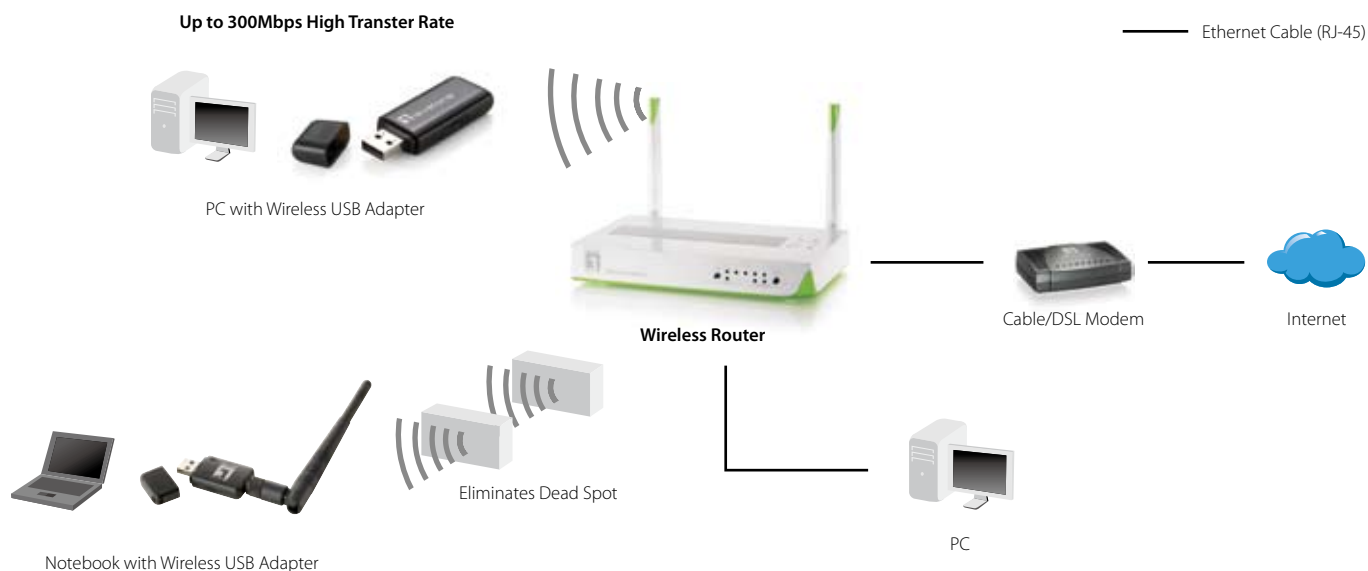
## Broadband Routers and Gateways Comparison

Model	FBR-1161A/B	FBR-1461A/B	WBR-6601	WBR-3601	WBR-3470A/B	WBR-6600A/B
Wireless Standards	-	-	11b/g/n	11b/g	11b/g	11b/g/n
ADSL	1	1	1	1	1	1
10/100Mbps LAN	1	4	4	4	4	4
Management	HTTP/Telnet/SNMP	HTTP/Telnet/SNMP	HTTP	HTTP	HTTP	HTTP



## LevelOne Network Adapters

The LevelOne Adapters allows you to connect to the Internet easily through the built-in USB port on your laptop or gaming console. PCI Cards are highly integrated and cost-effective solutions that provide 32-bit performance.



### Wired PCI Cards



#### FNC-0107TX / FNC-0109TX Fast Ethernet PCI Card

- 32-bit high performance PCI adapter
- Full duplex 20/200Mbps with auto-negotiation
- Supports FIFO buffer for high data transfer with low processor load
- Optional smart remote boot ROM (FNC-0107)
- AMD magic packet and wake-on LAN support (FNC-0107)

#### FPC-0106TX 10/100Mbps 32-Bit PC Cardbus Adapter

- Provides 10/100 Mbps 32-bit bus mastering
- Ultra-low power consumption
- PC card with hot-swap capability
- Supports full and half duplex modes
- Auto-negotiation network connection
- Provides LED display for network

### Wired USB Adapters



#### USB-0301 USB Fast Ethernet Adapter

- Provides an Internet connection through a single USB port with high-speed USB1.1/2.0 standard compliant
- Easily connect to the Internet through a USB port on the laptop or gaming console, works well with MacBook Air or any device without a built-in Ethernet port
- Offers Fast Ethernet speeds of 10/100Mbps
- Simply connect via plug-and-play with Nintendo Wii and MacBook Air
- Supports hot-swap and hot-insert
- Supports Windows XP/Vista/7

### Wired Network Adapters Comparison

Model	FNC-0107TX	FNC-0109TX	USB-0301
Interface	PCI	PCI	USB
Standard	802.3i/3u/3x	802.3i/3u/3x	802.3/u/x
Expansion Slots	10/100TX	10/100TX	10/100TX
Port	RJ-45	RJ-45	RJ-45
Wake On LAN	■	-	-

## Wired USB Adapters


**USB-0401**  
**USB Gigabit Ethernet Adapter**

- Enables Gigabit connectivity through USB 2.0 connection port
- Supports full and half duplex operation modes
- Auto-negotiation 10/100/1000Mbps connection rates
- Supports hot-swappable and hot-insert
- Supports 9K jumbo frame
- Power supply via USB connection
- Supports Windows 2000/XP/Vista/7; Mac 10.3/10.4/10.5


**USB-0501**  
**USB Hub and Fast Ethernet Combo Adapter**

- Provides an Internet connection through a single USB port
- Expands one USB port into four
- Compact and light-weight design
- High-speed USB 2.0 standard compliant, 480Mbps
- Great for MacBook Air with quick and easy installation
- No software installation or power supply required
- Supports Windows XP/Vista/7; Mac 10.1 or above

## Wireless PCI Cards


**WNC-0301**  
**54Mbps Wireless PCI Card**

- Highly efficient mechanism to provide unbeatable performance
- Security protection with 64/128-bit WEP/WPA/WPA2
- Operates in 2.412 ~ 2.484 GHz frequency
- Ad-Hoc, Infrastructure WLAN network wireless roaming
- Data rate auto fall-back under noisy environment or longer range distance
- Supports Windows 2000/XP/Vista/7

## Wired Network Adapters Comparison

Model	Interface	Standard	Expansion Slots	Port	Wake On LAN
USB-0401	USB	802.3i/3u/3ab	10/100/1000T	RJ-45	-
USB-0501	USB	802.3i/3u	10/100TX	1 x RJ-45 4 x USB port	-


**WNC-0601**  
**300Mbps Wireless PCI Card**

- 2 antennas with 1T/2R MIMO technology for 150Mbps sending rate and 300Mbps receiving rate
- Compatible with 802.11b/g/n wireless standards
- Operation at 2.4GHz frequency band to meet worldwide regulations
- Supports 64/128-bit WEP/WPA/WPA2 encryption for high level security
- Supports Wi-Fi Protected Setup (WPS) technology
- Provides for extended network area connectivity over greater distances
- Supports Windows 2000/XP/Vista/7


**WNC-0610**  
**300Mbps Wireless PCI Card**

- 3 antennas with 2T/3R MIMO technology for wireless data rates of up to 300Mbps
- Compatible with 802.11b/g/n wireless standards
- Supports 64/128-bit WEP/WPA/WPA2 encryption for high level security
- Three 2dBi dipole antennas with SMA connector
- Supports Wi-Fi Protected Setup (WPS) technology
- Provides for extended network area connectivity over greater distances
- Supports Windows 2000/XP/Vista/7


**WNC-0600 / WPC-0600**  
**300Mbps Wireless PCI/CardBus Adapter**

- 3 antennas with 2T/3R MIMO technology for wireless data rates of up to 300Mbps
- Compatible with 802.11b/g/n wireless standards
- Supports 64/128-bit WEP, WPA, WPA2 encryption for high level security
- Supports Wi-Fi Protected Setup (WPS) technology
- Quick and easy installation
- Extends network area connectivity over greater distances
- Supports Windows 2000/XP/Vista/7

## Wireless Network Adapters Comparison

Model	WNC-0301	WNC-0601	WNC-0610	WNC-0600	WPC-0600
Interface	32-bit PCI	32-bit PCI	32-bit PCI	32-bit PCI	CardBus
Standard Compliant	11b/g	11b/g/n	11b/g/n	11b/g/n	11b/g/n
Wireless Speed	54Mbps	300Mbps	300Mbps	300Mbps	300Mbps
Antenna Type	2 dBi	2 dBi	2 dBi	5 dBi	Internal
Frequency Range	2.4 ~ 2.4835 GHz	2.4 ~ 2.4835 GHz	2.4 ~ 2.4835 GHz	2.4 ~ 2.4835 GHz	2.4 ~ 2.4835 GHz

## Wireless USB Adapters



**WUA-0603**  
150Mbps Wireless USB Adapter

- Enjoy high-speed wireless connectivity through your USB port
- Easy plug-and-play setup with installation wizard
- Supports 64/128-bit WEP, WPA and WPA2 encryption with 802.1x support for high level security
- Portable and mini-size design
- Windows configuration for Wi-Fi Protected Setup (WPS)
- Compatible with IEEE 802.11b, 802.11g and 802.11n for wireless connection, speeds up to 150Mbps
- Supports Windows 2000/XP/Vista/7



**WUA-0614**  
150Mbps Wireless USB Adapter

- High-speed wireless connection, speeds up to 150Mbps
- Quick and easy installation
- Portable and mini-sized design
- Supports 64/128-bit WEP, WPA and WPA2 encryption for high level security
- Supports Wi-Fi Protected Setup (WPS) configuration
- 2dbi detachable antenna
- Supports Windows 2000/XP/Vista/7



**WUA-0624**  
150Mbps Wireless USB Adapter

- High-speed wireless connection, speeds up to 150Mbps
- Quick and easy installation
- Portable and mini-sized design
- Supports 64/128-bit WEP, WPA and WPA2 encryption for high level security
- Supports Wi-Fi Protected Setup (WPS) configuration
- 4dbi detachable antenna
- Supports Windows 2000/XP/Vista/7



**WUA-0605**  
300Mbps Wireless USB Adapter

- 2 internal antennas with 1T/2R MIMO technology for 150Mbps sending rate and 300Mbps receiving rate
- Compatible with 802.11b/g/n wireless standards
- Supports WEP, WPA and WPA2 encryption with 802.1x support for high level security
- Hardware Wi-Fi Protected Setup (WPS) Push Button
- Supports USB 2.0 interface
- Supports Windows 2000/XP/Vista/7



**WUA-0616**  
300Mbps Wireless USB Adapter

- 2 internal antennas with 2T/2R MIMO technology for wireless data rates of up to 300Mbps
- Compatible with 802.11b/g/n wireless standards
- Supports 64/128-bit WEP/WPA/WPA2 encryption for high level security
- Simple wireless security with one-push WPS button
- Operates on the 2.4GHz frequency band
- Supports USB 2.0 interface
- Supports Windows 2000/XP/Vista/7

## Accessories

**Model:** SUS-1003



**Description:** Small USB Stand with extension cable  
**Works with:** All LevelOne USB adapters

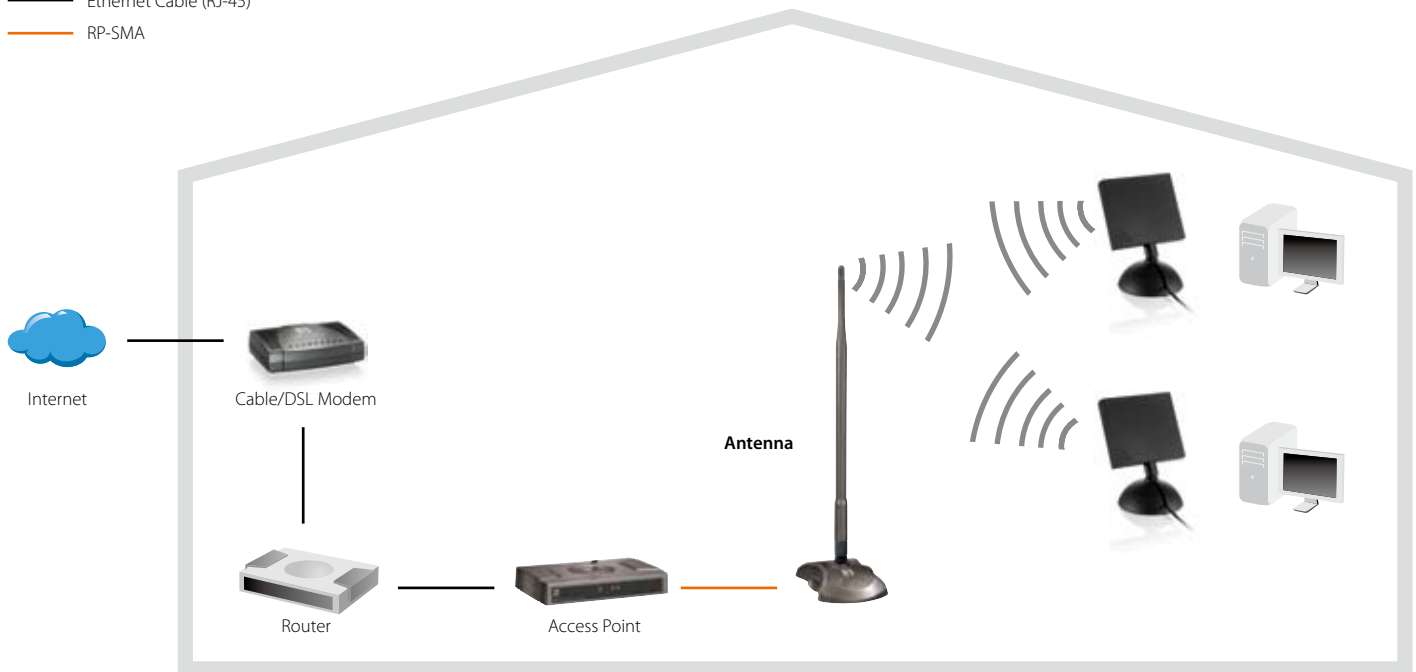
## Wired Network Adapters Comparison

Model	WUA-0603	WUA-0614	WUA-0624	WUA-0605	WUA-0616
Interface	USB 1.1/2.0	USB 1.0/2.0	USB 1.0/2.0	USB 1.1/2.0	USB 1.1/2.0
Standard Compliant	11b/g/n	11b/g/n	11b/g/n	11b/g/n	11b/g/n
Wireless Speed	150Mbps	150Mbps	150Mbps	300Mbps	300Mbps
Antenna Type	Internal	2 dBi	4 dBi	Internal	Internal
Frequency Range	2.4 ~ 2.4835GHz	2.4GHz ~ 2.4835GHz	2.4GHz ~ 2.4835GHz	2.4~2.4835 GHz	2.4~2.4835 GHz

# LevelOne Antennas

LevelOne Antennas offer a stronger and more stable wireless network connection for 802.11b/g wireless applications in 2.4GHz frequency range, such as wireless routers and access points.

— Ethernet Cable (RJ-45)  
— RP-SMA



## 2.4GHz Antennas



### OAN-0500 5dBi Omni-directional Indoor Antenna

- IEEE 802.11b/g wireless applications in 2.4GHz frequency range
- Provides a stable signal and extends coverage
- Replace standard detachable antennas on most wireless routers and access points
- Reverse SMA plug connector for easy replacement of standard antennas
- Does not impact the power requirement of wireless devices



### OAN-1070 7dBi Omni-directional Indoor Antenna

- For IEEE 802.11b/g/n Wireless applications in 2.4GHz frequency range
- Provides stable signals and extends coverage
- Omni-directional operation
- Easy to located in limited space
- Easy to install
- GDC-101 1.5m cable for wireless device with SMA plug reverse connector

## Accessories

**Model:** SAN-3000



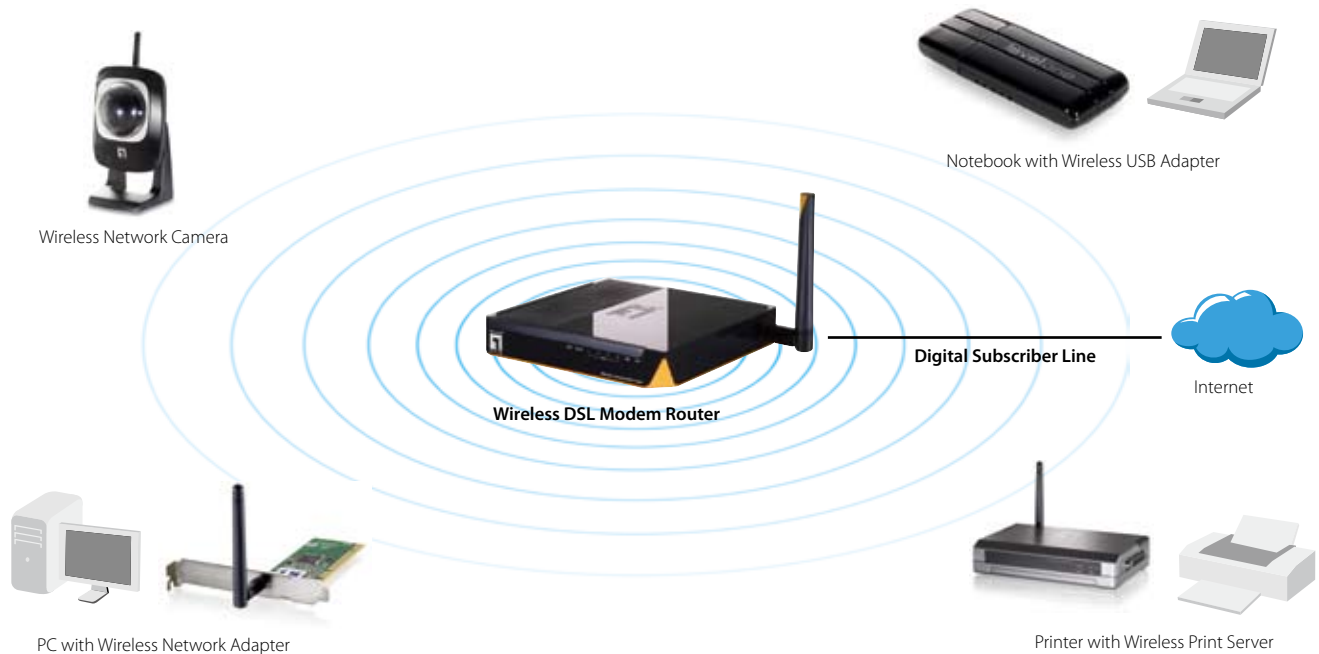
**Description:** MIMO Antenna Stand  
**Works with:** OAN-0500/OAN-1070

## Antennas Comparison

Model	OAN-0500	OAN-1070
Operating Area	Indoor	Indoor
Gain	5 dBi	7 dBi
Standard	11b/g/n	11b/g/n
Connector	RP-SMA Plug	Quick RP-SMA Plug
Range	40~200m	60~400m
Angle (horz/vert)	360°/35°	360°/23°

## LevelOne Wireless Solutions

Wireless is a rapidly growing segment for home and small office networking. LevelOne is leading the way when it comes to providing quality products that stream data at the fastest speeds while also offering the highest levels of security. And our award-winning 802.11n series give users fast and secure networks accompanied by unique and stylish designs.



### Wireless Broadband Routers and Gateways

**Model:** WBR-6002



**Description:** 150Mbps Wireless Router  
**See Page:** 05

**Model:** WBR-6003



**Description:** 150Mbps Wireless Router  
**See Page:** 05

**Model:** WBR-6005



**Description:** 150Mbps Wireless Router  
**See Page:** 05

**Model:** WBR-6020



**Description:** 300Mbps Wireless Router  
**See Page:** 06

**Model:** WBR-6011



**Description:** 300Mbps Wireless Router  
**See Page:** 06

**Model:** WGR-6012



**Description:** 300Mbps Wireless Gigabit Router  
**See Page:** 06

**Model:** WBR-6800



**Description:** 150Mbps Wireless 3G Router  
**See Page:** 06

**Model:** WBR-6801



**Description:** 150Mbps Wireless Portable 3G Router  
**See Page:** 06

**Model:** WBR-6022



**Description:** 300Mbps Wireless HomeGuard22 Gateway  
**See Page:** 06

## Wireless Broadband DSL Modem/Routers

**Model:** WBR-6601

**Description:** 150Mbps Wireless Modem Router  
**See Page:** 07

**Model:** WBR-3601

**Description:** 54Mbps Wireless ADSL2+ Modem Router  
**See Page:** 07

**Model:** WBR-3470A/B

**Description:** 54Mbps Wireless Modem + VOIP Router (Annex A/B)  
**See Page:** 07

**Model:** WBR-6600A/B

**Description:** 300Mbps Wireless ADSL2+ Modem Router (Annex A/B)  
**See Page:** 07

## Wireless Network Adapters

**Model:** WNC-0301

**Description:** 54Mbps Wireless PCI Adapter  
**See Page:** 09

## Wireless Network Adapters

**Model:** WNC-0601

**Description:** 300Mbps Wireless PCI Card  
**See Page:** 09

**Model:** WNC-0610

**Description:** 300Mbps Wireless PCI Card  
**See Page:** 09

**Model:** WNC-0600

**Description:** 300Mbps Wireless PCI Card  
**See Page:** 09

**Model:** WPC-0600

**Description:** 300Mbps Wireless CardBus Adapter  
**See Page:** 09

**Model:** WUA-0603

**Description:** 150Mbps Wireless USB Adapter  
**See Page:** 10

## Wireless Network Adapters

**Model:** WUA-0614/WUA-0624

**Description:** 150Mbps Wireless USB Adapter (Detachable Antenna-2dbi/4dbi)  
**See Page:** 10

**Model:** WUA-0605

**Description:** 300Mbps Wireless USB Adapter  
**See Page:** 10

**Model:** WUA-0616

**Description:** 300Mbps Wireless USB Adapter  
**See Page:** 10

## Antennas

**Model:** OAN-0500

**Description:** 5dBi Omni-directional Indoor Antenna  
**See Page:** 11

**Model:** OAN-1070

**Description:** 7dBi Omni-directional Indoor Antenna  
**See Page:** 11

## Wireless Network Cameras

**Model:** WCS-0030

**Description:** Wireless Megapixel PIR Lighting IP Camera  
**See Page:** 14

**Model:** WCS-0040

**Description:** Wireless 1.3-Megapixel Network Camera  
**See Page:** 14

**Model:** WCS-0010

**Description:** Wireless Network Camera  
**See Page:** 15

**Model:** WCS-2030

**Description:** Wireless Network Camera  
**See Page:** 15

**Model:** WCS-0020

**Description:** Wireless P/T Network Camera  
**See Page:** 15

## Wireless Network Cameras

**Model:** WCS-2060

**Description:** Wireless P/T Network Camera  
**See Page:** 15

**Model:** WCS-2010

**Description:** Wireless P/T Network Camera  
**See Page:** 15

**Model:** WAP-0008

**Description:** 54Mbps Wireless Access Point Storage (3.5" HDD)  
**See Page:** 17

**Model:** PLI-3410

**Description:** 200Mbps Wireless Powerline Adapter  
**See Page:** 18

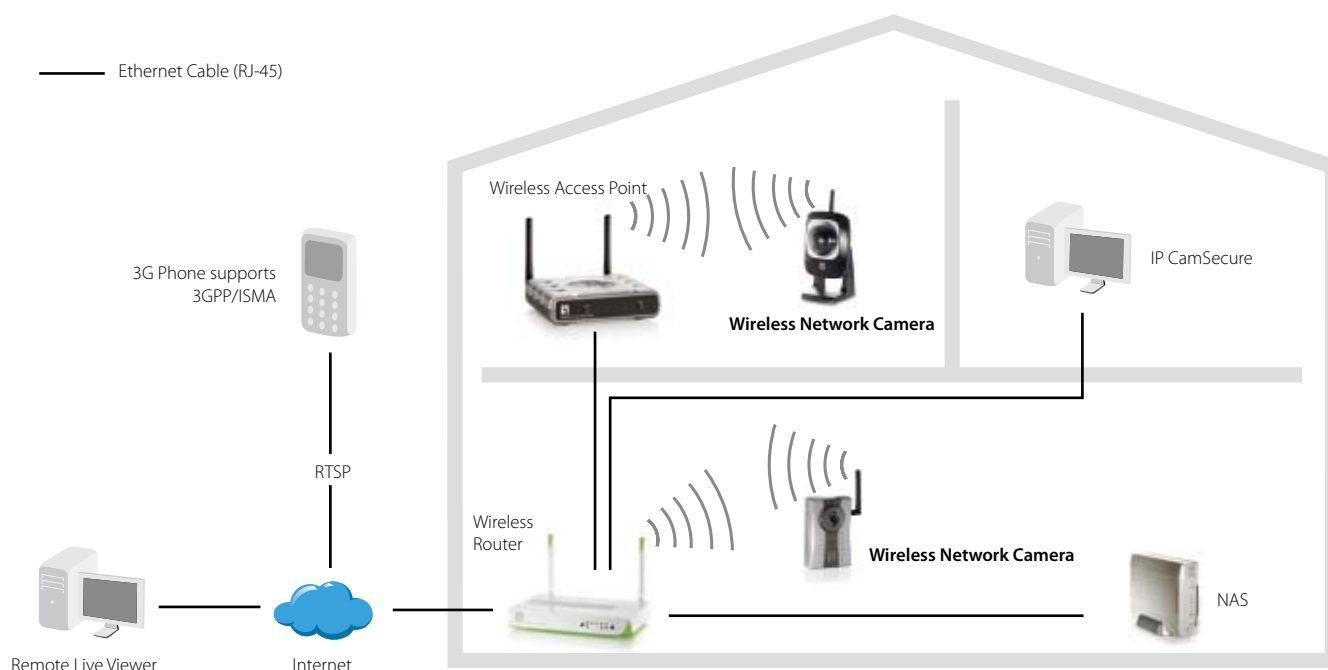
**Model:** WBR-3470A/B

**Description:** 54Mbps Wireless ADSL2+ VoIP Router (Annex A/B)  
**See Page:** 22



## LevelOne Network Cameras

Wired, wireless, day and night, pan/tilt/zoom, indoor and outdoor. All LevelOne cameras come with free 64-channel surveillance software that enables the user to view, manage, and capture streaming images from any location over the Internet or via 3GPP.



### SOHO Network Cameras



**FCS-0030 / WCS-0030**  
Wired/Wireless Megapixel PIR Lighting Network Camera

- 1/4" Progressive CMOS Megapixel, 1280 x 800
- H.264, MPEG4 and MJPEG compression
- Built-in PIR sensor for human temperature detection
- Built-in white LED for 0 lux
- Built-in microphone and speaker
- Micro SD/SDHC memory card slot for local storage
- Simple audio/video on/off with one-push Privacy Button
- Compatible with 802.11b/g/n wireless standards, 150Mbps (WCS-0030)
- Works well with WBR-6022 HomeGuard22 (refer page 6)



**FCS-0040**  
1.3-Megapixel Network Camera

- 1/5" Progressive CMOS 1.3-Megapixel, 1280 x 960
- H.264, MPEG4 and MJPEG compression
- Supports multiple streams simultaneously
- Built-in microphone and an audio out jack for bi-directional audio
- Up to 10 viewers simultaneously
- Supports ePTZ for data efficiency
- 4 motion detection regions and event notification via E-mail or FTP



**WCS-0040**  
Wireless 1.3-Megapixel Network Camera

- 1/5" Progressive CMOS 1.3-Megapixel, 1280 x 960
- H.264, MPEG4 and MJPEG compression
- Supports multiple streams simultaneously
- Built-in microphone and an audio out jack for bi-directional audio
- Up to 10 viewers simultaneously
- Supports ePTZ for data efficiency
- 4 motion detection regions and event notification via E-mail or FTP
- Supports 2-in-1 WPS and reset button
- 1 external and 1 internal antenna with 2T/2R MIMO technology for wireless data rates of up to 300Mbps

### Network Cameras Comparison

Model	FCS-0030	WCS-0030	FCS-0040	WCS-0040
Compression	MJPEG/MPEG4/H.264	MJPEG/MPEG4/H.264	MJPEG/MPEG4/H.264	MJPEG/MPEG4/H.264
2-Way Audio	■ (built-in speaker)	■ (built-in speaker)	■	■
Frame Rate	640x400: 30 fps 1280x800: 30 fps	640x400: 30 fps 1280x800: 30 fps	320x240: 30 fps 640x480: 30 fps 1280x960: 15 fps	320x240: 30 fps 640x480: 30 fps 1280x960: 15 fps
Web Browser	IE/Safari(Mac/iOS) <sup>1</sup> /Firefox <sup>1</sup>	IE/Safari(Mac/iOS) <sup>1</sup> /Firefox <sup>1</sup>	IE/Safari(Mac/iOS) <sup>1</sup> /Firefox	IE/Safari(Mac/iOS) <sup>2</sup> /Firefox

1. Network Camera needs to upgrade to version 1.0.0.26 or above.

2. Browser needs to key in with specific address- [http://camera\\_IP/img/mjpeg.htm](http://camera_IP/img/mjpeg.htm)

## SOHO Network Camera



**FCS-0010 / WCS-0010**  
**Wired/Wireless Network Camera**

- 1/6" Progressive CMOS, 640 x 480
- MPEG4 and MJPEG compression
- Supports triple streams simultaneously
- Up to 30 frames per second in full VGA resolution
- 2-way audio: built-in microphone and audio in/out jacks
- Features motion detection and event notification via E-mail or FTP
- Supports UPnP for easy set-up and installation
- Supports DDNS for dynamic IP
- Easily mounts on the wall
- Works well with WBR-6022 HomeGuard22 (refer to page 6)
- 802.11b/g wireless connection with WEP and WPA-PSK (WCS-0010)



**FCS-1030 / WCS-2030**  
**Wired/Wireless Network Camera**

- 1/4" Progressive CMOS, 640 x 480
- MPEG4 compression
- Supports 4x digital zoom
- Motion detection
- Adjustable network bandwidth
- Event-notification via E-mail
- Optimal synchronization of audio and video
- Supports 3GPP/ISMA RTSP (Real-Time Streaming Protocol)
- Supports UPnP for easy set-up and installation
- Works well with WBR-6022 HomeGuard22 (refer to page 6)
- 802.11b/g wireless connection with WEP and WPA-PSK (WCS-2030)



**FCS-0020 / WCS-0020**  
**Wired/Wireless P/T Network Camera**

- 1/4" Progressive CMOS, 640 x 480
- MPEG4 and MJPEG compression
- Supports triple streams simultaneously
- Supports 126° Pan, 64° tilt and 4x digital zoom
- Provides VGA resolution at 30/25 frames per second
- Supports 10 pre-set monitoring areas with patrol mode
- 2-way audio: built-in microphone and audio in/out jacks
- UPnP, DDNS, motion detection, and alarm snapshot
- Remote viewing over the Internet or via 3G mobile phone
- Easily mounts on the wall
- Works well with WBR-6022 HomeGuard22 (refer to page 6)
- 802.11b/g wireless connection with WEP and WPA-PSK (WCS-0020)



**FCS-1060 / WCS-2060**  
**Wired/Wireless P/T Network Camera**

- 1/4" Progressive CMOS, 640 x 480
- Motorized wide-range Pan/Tilt
- Supports 350° Pan, 125° Tilt
- Supports MPEG4 compression for streaming video and JPEG for still image motion detection
- Supports 20-preset monitoring areas with patrol mode
- Pre/Post alarm snapshots
- Supports UPnP and DDNS
- Works well with WBR-6022 HomeGuard22 (refer to page 6)
- 802.11b/g wireless connection with WEP and WPA-PSK (WCS-2060)



**FCS-1010 / WCS-2010**  
**Wired/Wireless P/T Network Camera**

- Provides 1/4" Color CCD sensor
- Supports 4x digital zoom function
- Supports UPnP for easy setup and installation
- Friendly GUI for easy configuration
- Built-in Omni-directional microphone
- Supports motion detection and E-mail notification
- Supports DDNS for dynamic IP
- Bundles 32-channel monitoring software
- Works well with WBR-6022 HomeGuard22 (refer to page 6)

## Network Cameras Comparison

Model	FCS-0010 / WCS-0010	FCS-1030 / WCS-2030	FCS-0020 / WCS-0020	FCS-1060 / WCS-2060	FCS-1010 / WCS-2010
Compression	MJPEG/MPEG4	MPEG4	MJPEG/MPEG4	MPEG4	MPEG4
2-Way Audio	■	-	■	-	-
Frame Rate	160x120: 30/25 fps 320x240: 30/25 fps 640x480: 30/25 fps	160x120: 30/25 fps 320x240: 30/25 fps 640x480: 30/25 fps	160x120: 30/25 fps 320x240: 30/25 fps 640x480: 30/25 fps	160x120: 30/25 fps 320x240: 30/25 fps 640x480: 30/25 fps	176x120: 30/25 fps 352x240: 30/25 fps 704x480: 10 fps
Web Browser	IE/Safari(Mac/iOS)/Firefox	IE	IE/Safari(Mac/iOS)/Firefox	IE	IE

## LevelOne Network Attached Storage (NAS)

LevelOne provides storage products for both home and office users. Whether you're looking for a simple and fast way to share your movies and music at home, or if you need to collaborate with your colleagues on a small to medium-sized office network, LevelOne has a Network Attached Storage solution for you.

### Save

LevelOne storages can backup your data. You can create a user ID and password, setting defined access and storage quota of each user through User Account Management.

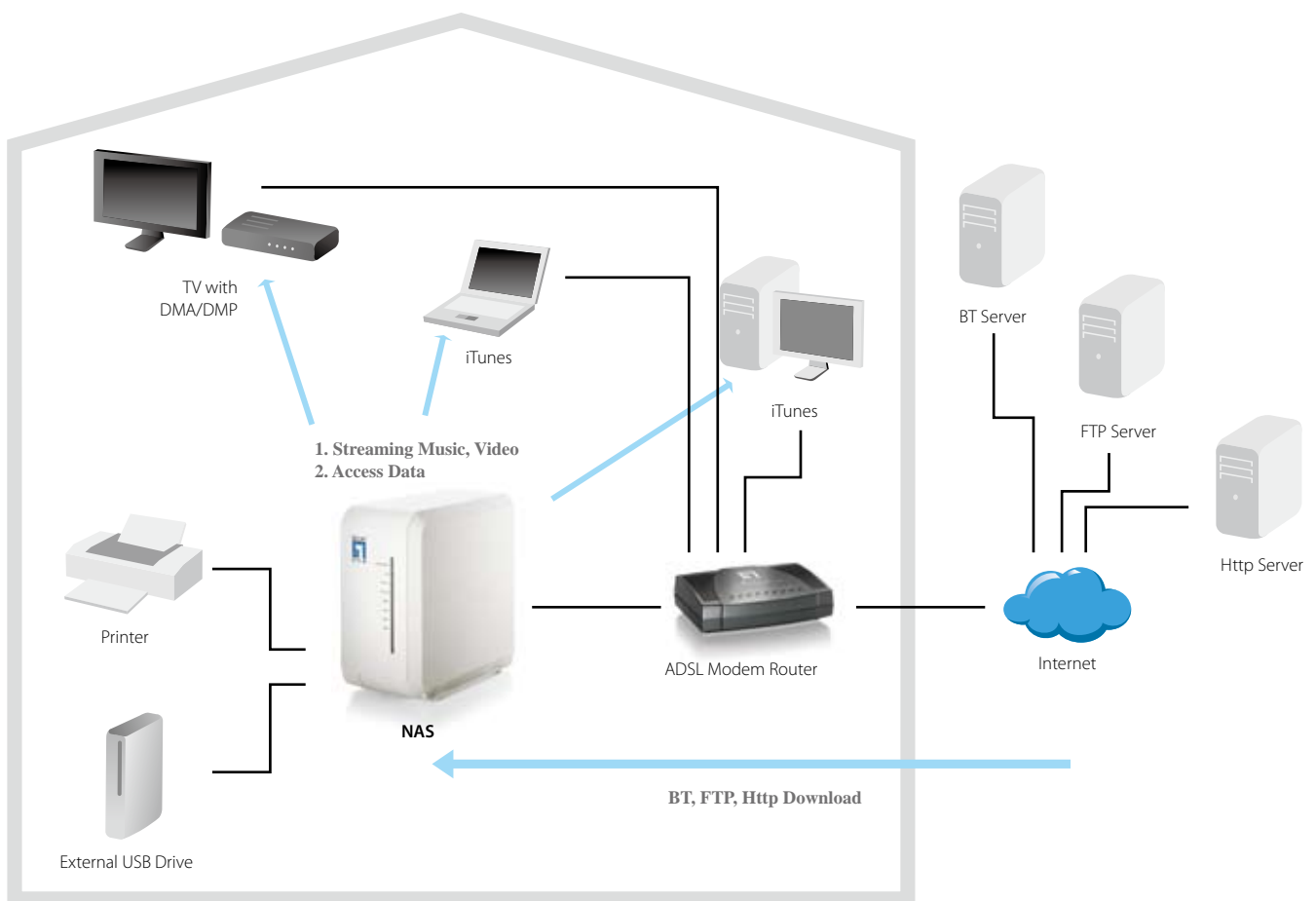
### Share

It's easier than ever to share photos, movies and music to all computers through LevelOne storages on the network. You don't need to save your files on a single PC or to worry where you can save a mass of information. The download function can be used independently to perform download tasks from FTP, HTTP and BitTorrent sources.

### Control

Home and office users can get remote access to LevelOne Network Storages anywhere to save and download files. The Web-based configuration and diagnostic interface offer a wide range of management options.

— Ethernet Cable (RJ-45)



## Network Attached Storage (NAS)


**WAP-0008**  
**54Mbps Wireless Access Point Storage**

- Single 3.5 inch SATA or IDE Hard Disk bay
- Stream music or video to PCs, Xbox or PS3 using the iTunes and UPnP Media Servers
- Download files without PC - supports HTTP, FTP and BitTorrent
- Share files using FTP Server or Windows File Sharing / Samba
- Two high speed USB 2.0 ports for extra storage
- Integrated Wireless Access Point providing speeds of up to 54Mbps
- Operates as Wireless Client, Access Point or Wireless Extender (WDS) modes.
- Web Interface configuration and management


**FNS-1020**  
**1-Bay Simple Network Storage**

- Single 3.5 inch SATA or IDE hard disk bay
- Stream music and video to your PC, media players or gaming console
- Download files without PC supports HTTP, FTP and BitTorrent
- Share files between computers and over Internet
- Two high speed USB 2.0 ports for extra storage
- Web-interface configuration and management
- Easy to setup and use
- Supports Windows 2000/XP/Vista, Mac OS X, Linux
- FNS-1020 (H/W: V2.0) provides 8MB flash memory, works well with WBR-6022 HomeGuard22 (refer to page 6)


**GNS-2000**  
**2-Bay Gigabit Network Storage**

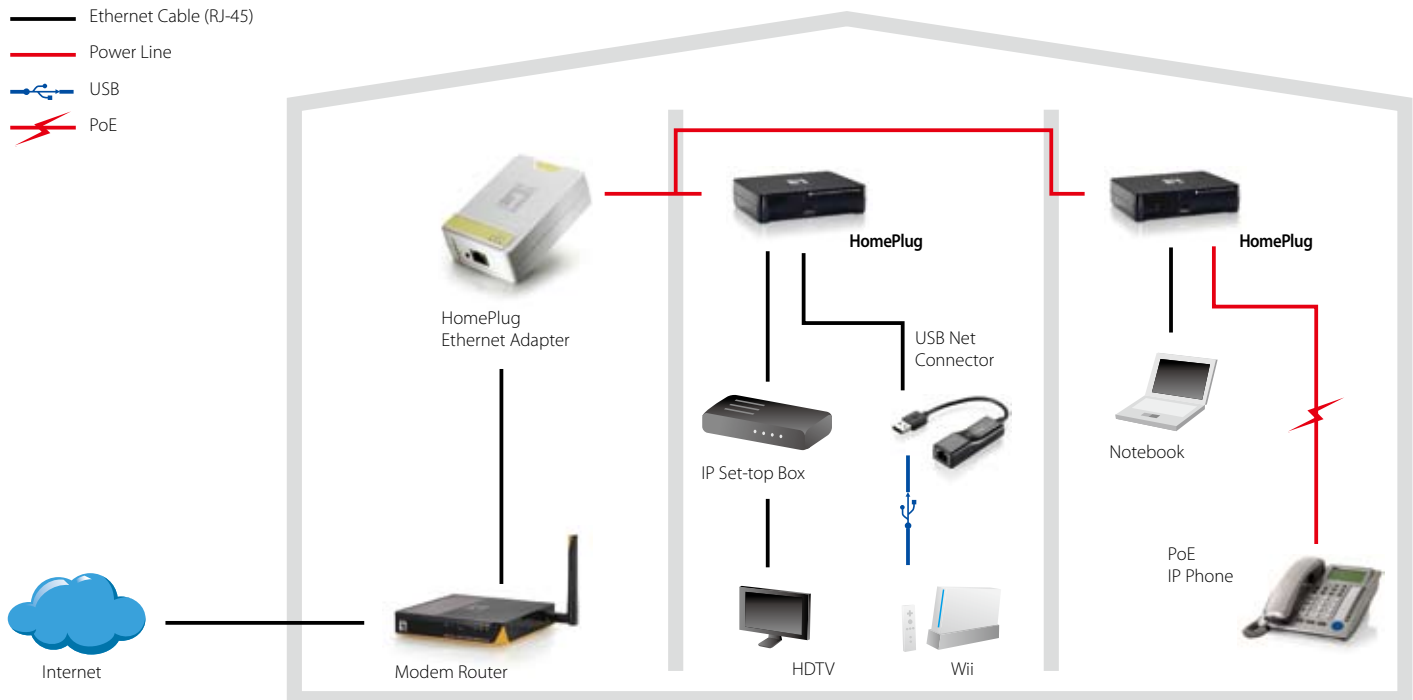
- Stream music and video files to PCs, media players and gaming consoles
- Share files between computers and over Internet
- Gigabit Ethernet (1000Mbps) file transfer speeds
- Built-in download and BitTorrent client
- Download with computer off
- Two high speed USB 2.0 ports for extra storage
- Two 3.5 inch SATA disk storage drives
- Easy to setup and use

## Network Attached Storage Comparison

Model	WAP-0008	FNS-1020	GNS-2000
Processor	AMRISC	32-bit AMRISC	Marvell 88F5182
Flash Memory	4MB	4MB(V1)/8MB(V2)	16 MB
DRAM	SDRAM 32MB	SDRAM 32MB	SDRAM 64MB
Drive Bay	1	1	2
Drive Interface	3.5" IDE/SATA	3.5" IDE/SATA	3.5" IDE/SATA
10/100Mbps Ports	1	1	-
10/100/1000Mbps Ports	-	-	1
802.11b/g	■	-	-
SCS(Ultra 160)	-	-	-
USB 2.0	2	2	2
FTP Server	■	■	■
BitTorrent Download	■	■	■
UPnP Media/DLNA Server	-	■	■
JBOD	-	-	■
RAID 0	-	-	■
RAID 1	-	-	■
RAID 5	-	-	-
RAID 10	-	-	-
Hot-Spare	-	-	-
Hot-Swappable	-	-	-
Rack Mountable	-	-	-
UPnP	■	■	■
Dimension L * W *H (mm)	215* 150 * 48	215 * 150 * 48	214 * 175 * 115

# LevelOne HomePlug Powerline Adapters

Transmit data using the existing electrical wiring in your building. LevelOne HomePlug Powerline Adapters are fast, simple, and cost-effective alternatives to installing expensive Ethernet cables throughout your entire home or small office.



## PLI-2040 200Mbps Powerline Adapter

- Sends data over your home's existing electrical wiring
- Designed for HD audio and video network streaming
- Built-in QoS engine for prioritized audio and video streaming
- Provides up to 200Mbps data transfer rates
- 128-bit AES secure encryption
- Simple plug-and-play installation
- Cost-effective network solution
- Security push button for software free configuration
- Saves power with LevelOne Green Technology\*
- Supports Windows 2000/XP/Vista/7



## PLI-2040 x 2 200Mbps Powerline Adapter Starter Kit

PLI-2040 starter kit is available which includes 2 HomePlugs, a user's manual, a utility CD for quick installation and a quick started guide that is an ideal and cost-effective remedy for streaming high quality video and audio over the home network.



## PLI-3410 200Mbps Wireless Powerline Adapter

- Physical data rates of up to 200Mbps over existing electrical wiring
- 2 antennas with 2T/2R MIMO technology for wireless data rates of up to 300Mbps
- Compatible with 802.11b/g/n wireless standards
- Increased wireless distance and throughput
- Simple wireless security with one-push WPS button
- Auto-channel selection to avoid interference from neighbors
- Bandwidth control with Quality of Service (QoS)
- Quick and easy installation
- Supports Windows 2000/XP/Vista/7

### HomePlug Powerline Adapters Comparison

Model	PLI-2040	PLI-2040 x 2	PLI-3410
Transfer Speed	200Mbps	200Mbps	200Mbps
Power Spec	EU, US, UK	EU, US, UK	EU, US, UK
Security	128-bits AES	128-bits AES	128-bits AES
QoS	■	■	■

\* The PLI-2040 will enter sleep/standby mode when there is no Ethernet activities for 3 minutes.



### PLI-3110 200Mbps PoE Powerline Adapter

- Sends data over your home's existing electrical wiring
- Includes 1 PoE for easy deployment of PoE devices
- Auto-discovery function to connect easily to other devices on the network
- Sends 48V DC power to a PoE powered device
- Follows the 200Mbps HomePlug Audio/Video standard for fast audio/video streaming
- Use with PoE (802.3af) enabled network camera, VoIP, wireless access point, routers and PD switch
- 128-bit AES link encryption with key management
- 15.4 Watts (Max.) power sent to PoE port
- Security push button for software free configuration



### PLI-3210 200Mbps Powerline Adapter with 4 FE Ports

- Sends data over your home's existing electrical wiring
- 4-Port Bridge to attach other network devices
- No need to install expensive Ethernet cables around home or office
- Auto-discovery function to connect easily to other devices on the network
- Up to 200Mbps PHY data rates on power line
- 128-bit AES link encryption with key management
- Security push button for software free configuration



### PLI-3310 200Mbps Powerline Adapter with 6-Socket Power Strip and 3 FE Ports

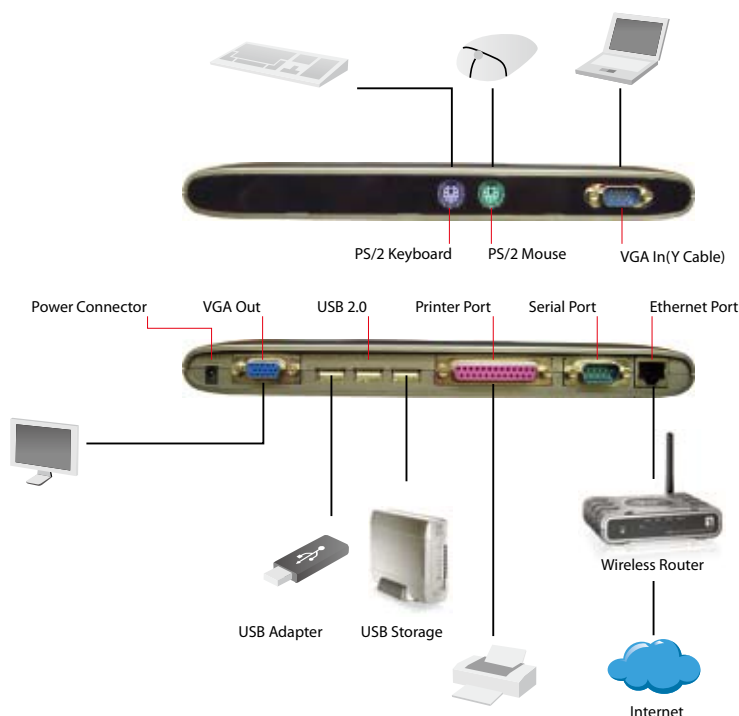
- Sends data over your home's existing electrical wiring
- Provides up to 200Mbps data transfer rates
- 3-Port Bridge for adding additional network devices
- 6 built-in electrical sockets for the most practical HomePlug solution available
- All electrical sockets are filtered, no interference with networking equipment
- Child safety shutters on each socket
- 128-bit AES link encryption with key management
- Security push button for software free configuration

### HomePlug Powerline Adapters Comparison

Model	Interface	Transfer Speed	Power Spec	Security
PLI-3110	1 x PoE	200Mbps	EU, US, UK	128-bits AES
PLI-3210	4 x RJ-45	200Mbps	EU, US, UK	128-bits AES
PLI-3310	3 x RJ-45, 6 x Socket	200Mbps	EU	128-bits AES

## LevelOne Docking Station

The LevelOne docking station provides greater functionality and power to a laptop computer by adding additional interfaces (USB, serial, PS/2, and RJ-45) for easy use and organization.



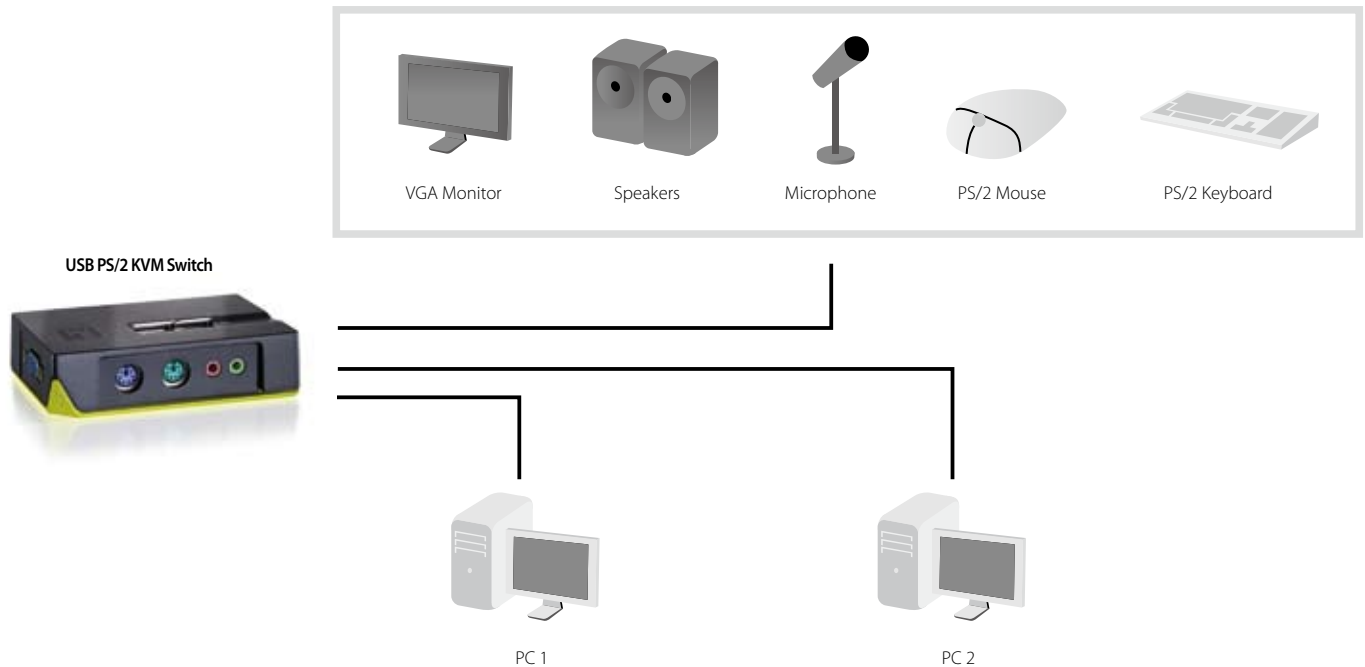
### UDS-1000 USB 2.0 Docking Station

- Instantly convert your laptop into networked desktop workstation
- Adds a parallel, serial, 10/100Mbps Ethernet LAN, PS/2 keyboard/mouse and three USB 2.0 ports to your laptop or desktop system
- Backward compatible with USB 1.1 devices
- USB bus-powered or self-powered with included power adapter
- Connect your desktop monitor to your laptop with VGA pass-through
- Provides easy installation and compatible with Windows 98SE/ME/2000/XP/Vista and Mac OS 10.3/10.4



## LevelOne KVM Switches/Consoles/Extenders

LevelOne KVM switches include award-winning designs that look great on any desktop. With a small footprint and plug-and-play installation, these devices help you to switch between computers with ease. Both PS/2 and USB connections are available to support any operating system.



### Cable KVM Switches



#### KVM-0213 2-Port PS/2 KVM Switch

- Control and manage 2 PCs from a single keyboard, mouse and monitor
- Provides PS/2 keyboard, mouse connection
- Audio enabled, 2.1 surround sound support
- High quality video resolution up to 2048 x 1536 (VGA)
- No additional power supply required
- LED display for easy status monitoring
- Auto scanning support

#### KVM-0223 2-Port USB KVM Switch

- Control and manage 2 PCs from a single keyboard, mouse and monitor
- USB connector for sharing devices
- High quality video resolution up to 2048 x 1536 (VGA)
- No additional power supply required
- Audio enabled, 2.1 surround sound support

#### KVM-0260 2-Port USB DVI KVM Switch with Audio

- 2-Port USB DVI KVM Switch for home or office use
- Connect multi-platform operating system computers to a single keyboard, mouse and monitor
- Supports high-video quality 1920x1200 pixels
- Plug-and-play, pure hardware installation
- All cables attached, ready-to-use
- Features audio and microphone support
- Provides auto-scanning
- LED display for easy status monitoring
- Provides hotkey switching
- Supports DDC2B

### KVM Switches Comparison

Model	Ports	Console Interface	Computer Interface	Platform Support	Max. Local Resolution	Audio
KVM-0213	2	PS/2	PS/2	PC	2048X1536	■
KVM-0223	2	USB	USB	PC, Mac, Sun	2048X1536	■
KVM-0260	2	USB, DVI	USB, DVI	PC, Mac	1920X1200	■

## Desktop KVM Switches



### KVM-0211 2-Port PS/2 KVM Switch with Audio

- Slim desktop KVM switch minimizes desktop footprint
- Control and manage 2 computers by using a single PS/2 keyboard mouse and monitor
- High 2048x1536 pixels VGA resolution
- Easy switching between computers with auto-scan, keyboard hotkeys and push button selection
- LED display for easy monitoring of PC activity
- Plug-and-play operation, no software installation or power supply required
- Audio support allows user to connect the audio ports from each computer to the KVM switch



### KVM-0212 2-Port PS/2 KVM Switch

- Slim desktop KVM switch minimizes desktop footprint
- Control and manage 2 computers by using a single PS/2 keyboard mouse and monitor
- High 2048x1536 pixels VGA resolution
- Easy switching between computers with auto-scan, keyboard hotkeys and push button selection
- LED display for easy monitoring of PC activity
- Plug-and-play operation, no software installation or power supply required



### KVM-0221 2-Port USB KVM Switch with Audio

- Slim and stylish design for minimizing desktop footprint
- Control and manage 2 computers by using a single USB keyboard, mouse and monitor
- High 2048x1536 pixels VGA resolution
- USB interface power supply
- Easy switching between computers with keyboard hotkeys push button and utility (or software) selection
- Plug-and-play operation, no software installation or power supply required
- Audio support allows user to connect the audio ports from each computer to the KVM switch



### KVM-0222 2-Port USB KVM Switch

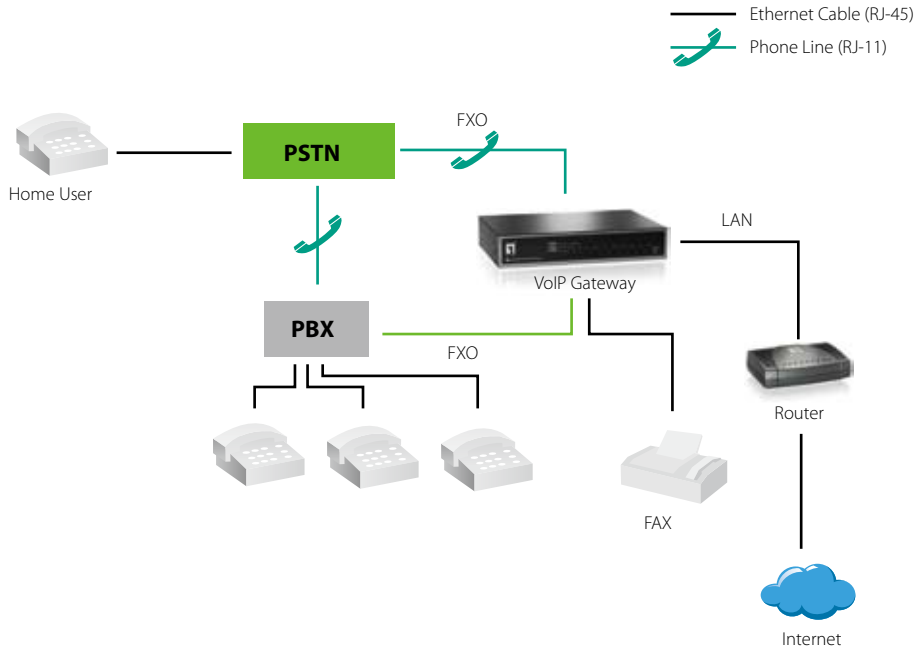
- Slim and stylish design for minimizing desktop footprint
- Control and manage 2 computers by using a single USB keyboard, mouse and monitor
- High 2048x1536 pixels VGA resolution
- USB interface power supply
- Easy switching between computers with keyboard hotkeys push button and utility (or software) selection
- Plug-and-play operation, no software installation or power supply required

## KVM Switches Comparison

Model	Ports	Console Interface	Computer Interface	Platform Support	Max. Local Resolution	Audio
KVM-0211	2	PS/2, D-Sub	PS/2, D-Sub	PC	2048x1536	■
KVM-0212	2	PS/2, D-Sub	PS/2, D-Sub	PC	2048x1536	-
KVM-0221	2	USB, D-Sub	USB, D-Sub	PC, Mac, Sun	2048X1536	■
KVM-0222	2	USB, D-Sub	USB, D-Sub	PC, Mac, Sun	2048X1536	-

## LevelOne VoIP Solution

VoIP gateways make phone calls over the Internet more simple, easy, and affordable. LevelOne VoIP Gateways are ideal for home, SOHO, and SMB users that are looking for integrating PSTN (Public Switched Telephone Network) and VoIP telephone features onto the same IP network.

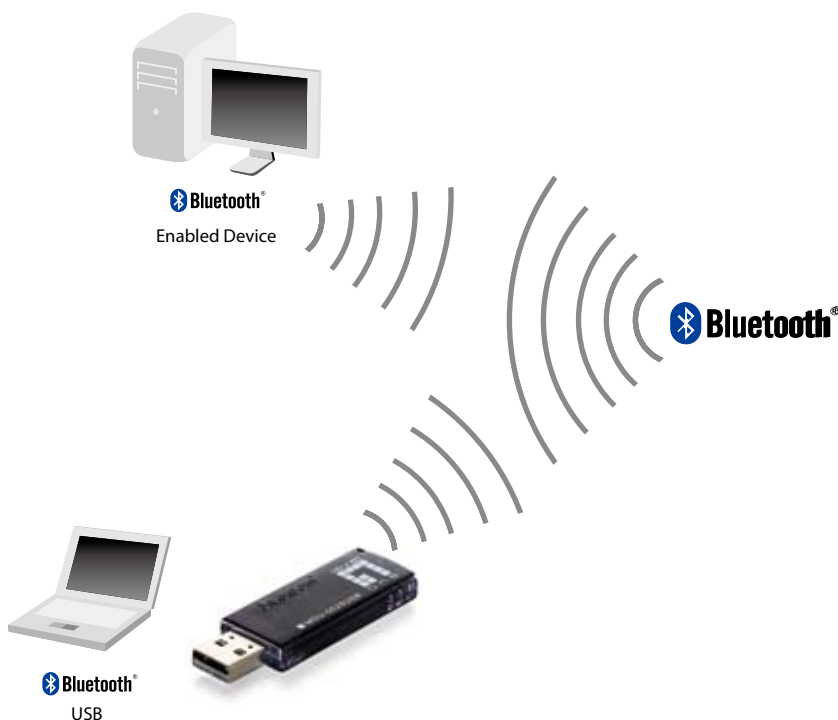


**WBR-3470A/B**  
**54Mbps Wireless ADSL2+ VoIP**  
**Router (Annex A/B)**

- Provides an all-in-one solution for Internet access, Internet calling and wireless Internet sharing
- Provides QoS control for traffic prioritization and bandwidth management
- Supports VPN pass-through and compliant with SIP standard providing toll-quality Internet calls
- Provides robust firewall security for network protection
- DHCP server allocates up to 253 client IP addresses
- Compliant with ADSL2/2+ standards for high-speed Internet access
- Provides support for PSTN connectivity for dual VoIP and traditional telephony operation

## LevelOne Bluetooth Communication

LevelOne provides a complete suite of Bluetooth accessories for easy communication over your personal network.



**MDU-0025USB**  
**Bluetooth 2.0 Class 1 USB Adapter**

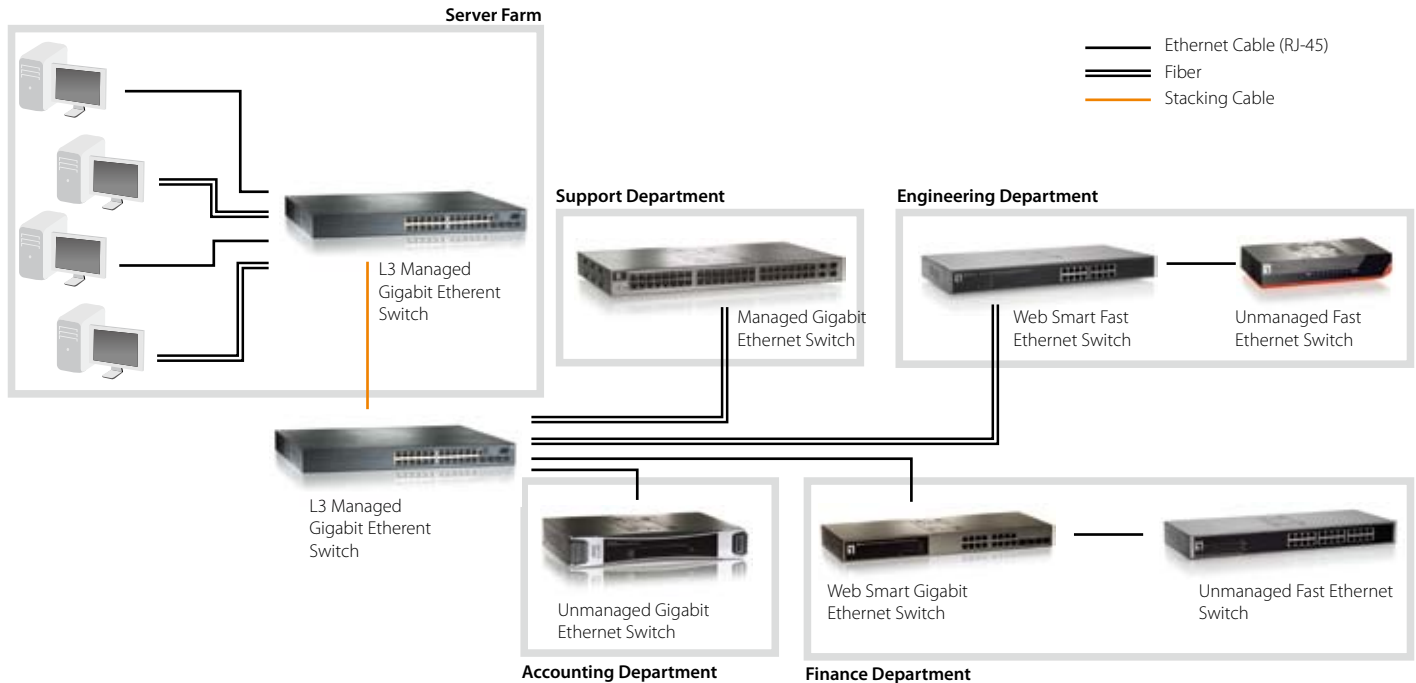
- Bluetooth v1.1/1.2/2.0 Compliant
- Data rate up to 3Mbps
- Connection range up to 100 meters (320ft)
- Allows creating a Bluetooth personal network area with other compatible Bluetooth devices
- Provides 128-bit encryption for data transmission
- Easy Installation
- Works with Windows 98SE/ME/2000/XP/Vista/7



<u>Ethernet Switches</u>	<b>24-31</b>
<u>Media Converters</u>	<b>32-34</b>
<u>Fiber Optical Transceivers</u>	<b>35-37</b>
<u>IP Power Switch</u>	<b>38</b>
<u>Broadband Routers and Gateways</u>	<b>38-39</b>
<u>Network Adapters and Boosters</u>	<b>40-42</b>
<u>Wireless Bridges/Access Points/Antennas</u>	<b>43-48</b>
<u>Wireless Solutions</u>	<b>49-50</b>
<u>Network Cameras</u>	<b>51-55</b>
<u>Video Servers/Captured Cards/Network Video Recorders</u>	<b>56-58</b>
<u>IP Surveillance Software</u>	<b>59-60</b>
<u>KVM Switches/Consoles/Extenders</u>	<b>61-64</b>
<u>PoE PD/PSE/Repeaters</u>	<b>65-68</b>
<u>Power over Ethernet (PoE) Solutions</u>	<b>69-71</b>
<u>Audio/Video Extenders</u>	<b>72-75</b>
<u>IP Audio Broadcasting</u>	<b>76</b>
<u>Print Servers</u>	<b>77-78</b>
<u>Voice over IP (VoIP) Solutions</u>	<b>79-80</b>

## LevelOne Ethernet Switches

LevelOne offers a comprehensive selection of Ethernet switches. From unmanaged switches with simple plug-and-play installation, to L3 managed switches following the most advanced standards set by the IEEE, we've got the right switch for you. LevelOne also provides unique PoE and fiber optic solutions to help you to build high-performance network that is fast, yet flexible enough to match any deployment challenge you encounter.



### Unmanaged Fast Ethernet Switches



FSW-2215



FSW-2218

#### FSW-2215 / FSW-2218 5/8-Port Fast Ethernet Switch

- Wire-speed and non-blocking forwarding rate with store-and-forward switching
- Supports half/full-duplex back pressure flow control
- Compact design, universal internal power with easy plug-and-play installation
- Supports NWay auto-negotiation and auto-MDI/MDI-X
- LEDs on front panel for easy access



#### FEU-0510 / FEU-0810 5/8-Port Fast Ethernet Switch

- 5/8 x 10/100Mbps RJ-45 NWay ports
- Compatible with IEEE 802.3, 802.3u and 802.3x flow control for half/full-duplex mode
- Supports 2K/1K MAC address entries
- Provides Auto-MDI/MDIX function
- Supports NWay protocol and speed auto-detect in duplex mode
- Store-and-forward switching architecture
- Provides port-based QoS feature
- Compatible with IEEE 802.3az standard
- Front-panel diagnostic LEDs



FSW-0512



FSW-0812

#### FSW-0512 / FSW-0812 5/8-Port Fast Ethernet PoE PD Switch

- Features 5 auto-negotiation RJ-45 ports supporting auto-MDI/MDIX (FSW-0512)
- Features 8 auto-negotiation RJ-45 ports supporting auto-MDI/MDIX (FSW-0812)
- PD network switch for flexible and easy installation without the need for a power adapter
- Delivers 200Mbps bandwidth per port with non-blocking wire-speed switching architecture
- Compact design for desktop or wall-mounting
- Plug-and-play enabled for easy setup and configuration
- Supports MAC address auto-learning and auto-aging

### Ethernet Switches Comparison

Model	FSW-2215	FSW-2218	FEU-0510	FEU-0810	FSW-0512	FSW-0812
Ports/Expansion	5 x 10/100TX	8 x 10/100TX	5 x 10/100TX	8 x 10/100TX	4 x 10/100TX 1 x 10/100TX-PD	7 x 10/100TX 1 x 10/100TX-PD
Slots MAC Table	1K	1K	2K	1K	2K	2K
Buffer Memory	128 KB	96 KB	48 KB	96 KB	1 MB	1 MB
Backplane	1.0 Gbps	1.6 Gbps	1.0 Gbps	1.6 Gbps	1.0 Gbps	1.6 Gbps
Power supply	Internal	Internal	Internal	Internal	External	External

## Unmanaged Fast Ethernet Switches



**FSW-2106**  
**5 FE + 1 FE SC Fiber Switch**

- Wire-speed and non-blocking forwarding rate with NWay auto-negotiation
- Provides auto-MDI/MDI-X on all ports
- Half-duplex back pressure flow control
- Plug-and-play installation, nothing to configure
- LEDs on front panel for easy access and real time viewing status of switch
- Store-and-forward switching ensures error-free transmission



**FEU-1610 / FEU-2410**  
**16/24-Port Fast Ethernet Switch**

- 16/24 x 10/100Mbps RJ-45 NWay ports
- Fully compatible with IEEE 802.3, 802.3u and 802.3x flow control for half/full-duplex mode
- Supports 8K MAC address entries
- Provides Auto-MDI/MDIX function
- Supports NWay protocol and speed auto-detect in duplex mode
- Store-and-forward switching architecture
- Provides 802.1p QoS feature
- Compatible with IEEE 802.3az standard
- Front-panel diagnostic LEDs



**FSW-1602TX**  
**16-Port Fast Ethernet Switch**

- 16-Port 10/100 BASE-TX Ethernet Switch with RJ-45 connectors
- Supports auto-negotiation for speed and duplex modes for each port
- Wire-speed and non-blocking forwarding rate with store-and-forward switching
- Compact design, easy plug-and-play installation
- Supports auto-MDI/MDI-X on all ports
- Saves power with LevelOne Green Technology
- Front-panel diagnostic LEDs
- 7-inch compact design case



FSW-1621



FSW-2421

**FSW-1621 / FSW-2421**  
**16/24-Port Fast Ethernet Switch**

- Provides 16 Fast Ethernet ports with wire-speed and non-blocking forwarding rate (FSW-1621)
- Provides 24 Fast Ethernet ports with wire-speed and non-blocking forwarding rate (FSW-2421)
- Supports full-duplex IEEE802.1x flow control
- Supports auto-negotiation and auto-MDI/MDIX
- Plug-and-play with no configuration
- Accessory for stacking up or mounting into 19" rack
- Store-and-forward switching ensures error-free transmission
- 10-inch compact case and rack mountable



FSW-1650

FSW-2450

**FSW-1650 / FSW-2450**  
**16/24-Port Fast Ethernet Switch**

- Provides 16 Fast Ethernet port connections
- Wire-speed and non-blocking forwarding rate
- Supports auto-negotiation on all ports
- Store-and-forward switching for error-free transmission
- Full-duplex IEEE802.3x flow control
- Plug-and-play enabled for easy setup
- Accessory kit for mounting into a 19" server rack
- Supports IEEE 802.1P QoS (WRR 8:1)



FSW-0809



FSW-0822

**FSW-0809 / FSW-0822**  
**4 FE PoE + 4 FE Switch**

- Provides 8-Port 10/100Mbps Ethernet Switch with 4 shared PoE ports
- Fully compliant with the IEEE802.3af PoE standard
- Supports over current and circuit shorting protection
- Provides a store-and-forward and non-blocking switching architecture
- Supports up to 1K MAC address table
- Provides 96KB packet buffer
- Provides a maximum power of 15.4W per PoE port
- Power budget 30W (FSW-0809) / 61.6W (FSW-0822)
- Internal power adapter (FSW-0822)

## Ethernet Switches Comparison

Model	FSW-2106	FEU-1610 / FEU-2410	FSW-1602TX	FSW-1621 / FSW-2421	FSW-1650 / FSW-2450	FSW-0809 / FSW-0822
Ports/Expansion	5 x 10/100TX 1 x MM 100FX-SC	16/24 x 10/100TX	16 x 10/100TX	16/24 x 10/100TX	16/24 x 10/100TX	1 x 10/100TX 4 x 10/100TX-PoE
Slots MAC Table	2K	8K	8K	8/4K	8K	1K
Buffer Memory	96 KB	256 KB	156 KB	160/192 KB	160 KB	96 KB
Backplane	1.2 Gbps	3.2/4.8 Gbps	3.2 Gbps	3.2/4.8 Gbps	3.2/4.8 Gbps	1.6 Gbps
Power supply	External	Internal	External	Internal	Internal	External/Internal



## Unmanaged Fast Ethernet Switches



### FSW-0503 4 FE PoE + 1 FE Switch

- Provides 10/100Mbps Fast Ethernet Switch with 4 Power over Ethernet (PoE) ports and one uplink port
- Fully compliant with the IEEE802.3af, IEEE802.3u and IEEE802.3 standards
- Power protection: Over Voltage Protection (OVP)/ Over Current Protection (OCP)/ Over Temp Protection (OTP)
- 19" chassis, POC-6000 (refer Page 68) support 8 slots for FSW-0503 for a large-scale rack-mount PoE solution
- Plug-and-play installation
- Supports up to 1K MAC address table
- Power Budget 61.6W



### FSW-0513 4-Port Fast Ethernet High Power PoE Switch

- Provides 10/100Mbps Fast Ethernet switch with 4 high Power over Ethernet (PoE) ports and one uplink port
- Compatible with the 802.3/3u/3x standard
- PoE output power of enabled ports (per port): 1-Port: 48W; 2-Port: 48W; 3-Port: 40W; 4-Port: 30W
- Power protection: Over Voltage Protection (OVP)/ Over Current Protection (OCP)/ Over Temp Protection (OTP)
- 19" chassis, POC-6000 (refer page 68) support 8 slots for FSW-0513 for a large-scale rack-mount PoE solution.
- Plug-and-play installation
- Control each PoE port on/off by dip switch
- Supports up to 2K MAC address table
- Power Budget 120W



### IFE-0500 4 FE PoE + 1 FE Industrial Switch

- Provides auto-sensing for providing power to IEEE 802.3af with 15.4W per PoE port
- Provides surge (EFT) protection (3,000 VDC)
- Supports Ethernet ESD protection (4,000 VDC)
- Supports redundant 12 ~ 48 VDC power input
- Case design meets IP-30 protection standard
- DIN-rail and wall mount design
- Provides broadcast storm protection
- Supports operating temperature from -10°C~60°C



### IFE-0501 4 FE PoE + 1 FE Multi-Mode SC Industrial Switch

- Multi-mode (2km) SC fiber optic connection
- Provides surge (EFT) protection (3,000 VDC)
- Supports Ethernet ESD protection (4,000 VDC)
- Supports redundant 12 ~ 48 VDC power input
- Case design meets IP-30 protection standard
- DIN-rail and wall mount design
- Provides broadcast storm protection
- Operates in temperature from -10°C~60°C



### IFE-0502 4 FE PoE + 1 FE Single-Mode SC Industrial Switch

- Single-mode (30km) SC fiber optic connection
- Provides surge (EFT) protection (3,000 VDC)
- Supports Ethernet ESD protection (4,000 VDC)
- Supports redundant 12 ~ 48 VDC power input
- Case design meets IP-30 protection standard
- DIN-rail and wall mount design
- Provides broadcast storm protection
- Operates in temperature from -10°C~60°C



### GEP-0520 4 GE PoE + 1 GE Switch

- 5 Gigabit Ethernet Switch, with 4 PoE ports
- Compatible with IEEE 802.3, 802.3u, 802.3ab and 802.3af
- Provides half-duplex and full-duplex auto-detection
- Store-and-forward switching architecture
- Provides 4 PoE ports with classification identify
- Supports 15.4W max. per PoE port
- Total PoE power budget 61.6W

## Unmanaged Gigabit Ethernet Switches

## Ethernet Switches Comparison

Model	FSW-0503	FSW-0513	IFE-0500	IFE-0501	IFE-0502	GEP-0520
Ports/Expansion	1 x 10/100TX	1 x 10/100TX	1 x 10/100TX	1 x MM 100FX-SC	1 x MM 100FX-SC	1 x 10/100/1000T
	4 x 10/100TX-PoE	4 x 10/100TX-PoE	4 x 10/100TX-PoE	4 x 10/100TX-PoE	4 x 10/100TX-PoE	4 x 10/100/1000T-PoE
Slots MAC Table	1K	2K	1K	1K	1K	1K
Buffer Memory	512 KB	512 KB	512 KB	512 KB	512 KB	104 KB
Backplane	1 Gbps	1 Gbps	1 Gbps	1 Gbps	1 Gbps	10 Gbps
Power supply	External	External	Terminal Block	Terminal Block	Terminal Block	External

## Unmanaged Gigabit Ethernet Switches


**GSW-0508**  
**4 GE + 1 GE SFP Switch**

- Provides 4 x 10/100/1000Mbps and 1 SFP port with large 10Gbps switching bandwidth
- Auto-negotiation and auto-MDI/MDI-X on all ports
- Supports full-duplex IEEE 802.3x flow control
- Store-and-forward switching architecture
- Compatible with IEEE802.3, 802.3u, 802.3ab and 802.3z standards
- Wire-speed packet filtering and forwarding rate
- Supports 9K jumbo frame
- Provides wall-mount kit

GSW-0509



GSW-0809


**GSW-0509 / GSW-0809**  
**5/8-Port Gigabit Switch**

- 5/8 auto-negotiation 10/100/1000Mbps Ethernet ports
- Auto MDI/MDI-X at each port
- Supports half and full-duplex modes
- Store-and-forward switching technology
- Plug-and-play with no configuration required
- Internal power supply
- Supports 9K jumbo frame
- Saves up to 79% power with LevelOne Green Technology (GSW-0509)
- Saves up to 83% power with LevelOne Green Technology (GSW-0809)

GEU-0520



GEU-0820


**GEU-0520 / GEU-0820**  
**5/8-Port Gigabit Switch**

- 5/8 x 10/100/1000Mbps RJ-45 Nway
- Compatible with IEEE 802.3, 802.3u and 802.3ab
- Supports full-duplex IEEE 802.3x flow control and IEEE 802.3az Energy Efficient Ethernet
- Supports 8K MAC address entries
- Supports 9KB jumbo frame
- Provides Auto-MDI/MDIX function
- Supports Nway protocol
- Store-and-forward switching architecture
- Front-panel diagnostic LEDs
- Detachable base for quick installation and wall mounting


**GSW-1603**  
**16-Port Gigabit Ethernet Switch**

- Compatible with IEEE802.3, IEEE 802.3u, IEEE802.3ab
- Provides 16 x 10/100/1000Mbps NWay ports
- Auto-MDI/MDI-X crossover detection for all ports
- Full wire-speed packet filtering and forwarding rate
- Supports back-pressure and flow control
- Store-and-forward switching architecture
- Supports 9KB jumbo frame
- Saves up to 49% power with LevelOne Green Technology


**GSW-1621**  
**16 GE + 1 GE Combo SFP Switch**

- Combines copper and fiber optic connectivity into one network switch
- Supports NWay auto-negotiation and duplex modes
- Provides 16 Gigabit ports and 1 SFP for optional fiber optical communication
- Provides max. 32Gbps backplane bandwidth through full-duplex mode
- Supports FCC Class A, CE and VCCI
- Supports 9KB jumbo frame
- Saves up to 46% power with LevelOne Green Technology


**GSW-2420**  
**24-Port Gigabit Switch**

- Compatible with IEEE 802.3, 802.3u, 802.3ab and 802.3x flow control for full-duplex
- Supports auto-MDI/MDI-X for each port
- Supports auto-negotiation and duplex modes
- Supports 9K jumbo frame
- Provides store-and-forward filters errors free architecture
- Front-panel diagnostic LEDs
- Saves up to 23% power with LevelOne Green Technology

## Ethernet Switches Comparison

Model	GSW-0508	GSW-0509 / GSW-0809	GEU-0520 / GEU-0820	GSW-1603	GSW-1621	GSW-2420
Ports/Expansion	4 x 10/100/1000T 1 x 1000FX-SFP	5/8 x 10/100/1000T	5/8 x 10/100/1000T	16 x 10/100/1000T	16 x 10/100/1000T 1 x 1000FX-SFP	24x 10/100/1000T
Slots MAC Table	1K	1K	8K	8K	8K	8K
Buffer Memory	104KB	104/128 KB	128 KB	500 KB	340 KB	500 KB
Backplane	10 Gbps	10/16 Gbps	10/16 Gbps	32 Gbps	32 Gbps	48 Gbps
Power supply	External	Internal	External	Internal	Internal	Internal

## Unmanaged Fast/Gigabit Ethernet Switches



**GSW-2456**  
24 GE + 4 GE Combo SFP Switch

- Easy deploy a 16/24-Port Gigabit office LAN with fiber connectivity
- Provides plug-and-play architecture
- Supports auto-MDI/MDI-X, NWay auto-negotiation and store-and-forward switching architecture
- Standard 19-inch, 1U rack-mountable design
- Supports auto-detection when mini GBIC modules are inserted
- Saves up to 52% power with LevelOne Green Technology



**GSW-2453**  
3-Slot Gigabit Modular Switch

- Features 3 module slots for flexible network integration with 8-Port 1000T, 8-Port mini GBIC and 4-Port 1000T+4-Port mini GBIC module
- Compatible with IEEE802.3/u, 802.3ab, 802.3z and 802.3x flow control
- Store-and-forward switching architecture
- Plug-and-play installation with no configuration
- Provides "at-a-glance" system status monitoring LED display
- 19" 1U rack-mountable size



GSW-1657



GSW-2457

**GSW-1657 / GSW-2457**  
16/24-Port Gigabit Switch

- Compatible with IEEE 802.3, 3u and IEEE 802.3ab
- 16 or 24 x 10/100/1000Mbps auto-negotiation Ethernet ports
- Supports data transfer rate of up to 2Gbps throughput in full-duplex mode on each port
- Provides Auto-MDI/MDIX function
- Supports IEEE 802.3x flow control for full-duplex mode and back pressure flow control for half-duplex mode
- Store-and-forward switching scheme
- Supports 4 Queues of QoS for better communication quality
- Supports 10KB jumbo frame

## Web Smart Fast Ethernet Switches



**GSW-5150**  
48 FE + 2 GE + 1 GE SFP Switch

- Compatible with IEEE802.3, 3u, 3ab and 802.3x flow control for full-duplex model
- 48 x 10/100Mbps auto-negotiation RJ-45 ports
- 2 x 10/100/1000Mbps auto-negotiation RJ-45 ports
- Supports 1 SFP Mini GBIC interface
- Non-blocking switching architecture
- Supports MAC address auto-learning and auto-aging
- LED indicators for monitoring power, link, activity, speed
- Standard 19" rack-mountable steel case
- Internal universal switching power supply



**FSW-1671**  
8 FE PoE + 8 FE Web Smart Switch

- 16 x 10/100Mbps auto-negotiation Fast Ethernet RJ-45 ports including 8 PoE ports (port-9 ~ port-16)
- Compatible with IEEE802.3af standard
- Supports PoE power maximum 15.4W for each PoE port
- Supports IEEE 802.3x flow control for full-duplex mode ports
- Supports back-pressure flow control for half-duplex mode ports
- Supports 802.1Q VLAN
- Supports Port based/802.1P based QoS
- Easy configuration via WEB browser

## Web Smart Fast/Gigabit Ethernet Switches



GSW-0841



GSW-1641

**GSW-0841 / GSW-1641**  
8/16 GE + 1 GE Combo SFP Web Smart Switch

- Compatible with IEEE 802.3, 802.3u, 802.3ab and 802.3z
- 8/16 x 10/100/1000Mbps RJ-45 NWay ports
- 1 x SFP for optional fiber optical communication
- Supports 8K absolute MAC addresses entries
- Supports 9KB jumbo frame
- Supports 4 trunk groups and up to 7 trunk members (GSW-0841)
- Supports up to 8 ports and 8 groups port aggregation (GSW-1641)
- Supports QoS for better communication quality
- Front-panel diagnostic LEDs

## Ethernet Switches Comparison

Model	GSW-2456	GSW-2453	GSW-1657 / GSW-2457	GSW-5150	FSW-1671	GSW-0841 / GSW-1641
Ports/Expansion	24 x 10/100/1000T 4 x 1000FX-SFP	3 x Expansion slot	16/24 x 10/100/1000T	48 x 10/100TX 2 x 10/100/1000T 1 x 1000FX-SFP	8 x 10/100TX-PoE 8 x 10/100TX	8/16 x 10/100/1000T 1 x 1000FX-SFP
Slots MAC Table	8K	4K	8K	8K	4K	8K
Buffer Memory	500 KB	256 KB	512 KB	128 KB	192 KB	180/340 KB
Backplane	48 Gbps	48 Gbps	32/48 Gbps	15.6Gbps	3.2 Gbps	16/32 Gbps
Power supply	Internal	Internal	Internal	Internal	Web browser	Web browser

## Web Smart Fast/Gigabit Ethernet Switches



**GSW-2440**  
**24-Port Gigabit Web Smart Switch**

- Compatible with IEEE 802.3, 802.3u, 802.3ab
- 24 x 10/100/1000Mbps RJ-45 NWay ports
- Up to 48Gbps Backplane bandwidth
- Supports 8K absolute MAC addresses
- Supports 500K bytes RAM for data buffering
- Supports 9KB jumbo frame
- Supports up to 8 ports and 12 groups port aggregation
- Supports QoS for better communication quality
- Front-panel diagnostic LEDs
- Supports back-pressure (half duplex) and flow control



**GSW-2473**  
**24 FE + 2 GE Combo SFP Web Smart Switch**

- 24-Port Combo Web Smart Switch for high performance office networks
- Auto-negotiation and Auto-MDI/ MDI-X on all ports
- Supports full-duplex IEEE 802.3x flow control
- Store-and-forward switching architecture
- Complies with IEEE 802.3ab, 802.3u and 802.3, 802.z standards
- Supports NWay protocol and auto-detect duplex mode
- Features Port-Based 802.1Q Tag VLAN
- Supports 802.1p Class of Service with 2 per port priority queues



GSW-1676



GSW-2476

**GSW-1676 / GSW-2476**  
**16/24 GE + 4 GE Combo SFP Web Smart Switch**

- 16 or 24 auto-MDI/MDI-X 10/100/1000Base-T ports
- 4-Port shared with 4 SFP transceiver slots
- Non-blocking switching architecture
- Supports Static Trunk
- Layer 2/3/4 CoS support through four priority queues
- Full support for VLANs with GVRP
- IGMP multicast filtering and snooping
- Supports 9KB jumbo frame
- Manageable via Web
- Supports Link Aggregation Control Protocol (LACP)

## Layer 2 Managed Fast/Gigabit Ethernet Switches



**GSW-4876**  
**48 GE + 4 GE Combo SFP Web Smart Switch**

- 48 auto-negotiation Gigabit Ethernet ports
- Provides 4 mini-GBIC (Auto-Sense) for optional SFP transceiver to extend distance
- Full support for VLANs with GVRP
- Supports IEEE 802.1Q VLAN and 802.1p priority queues
- Supports static port trunk
- Supports 9KB jumbo frame



**GSW-5270**  
**48 FE + 4 GE + 2 GE Combo SFP Web Smart Switch**

- Features 48 auto-negotiation Fast Ethernet ports
- Features 4 auto-negotiation Gigabit Ethernet ports
- Provides 2 optional mini-GBIC transceiver slots for extending the network distance
- Supports 802.1Q VLAN and 802.1p priority queues
- Supports static port trunk, port mirroring and broadcast storm control
- Standard 19-inch rack-mount size



**GSW-0890**  
**8 GE + 2 GE Combo SFP L2 Managed Switch**

- 802.1Q Q-in-Q VLAN with up to 256 active VLANs
- Supports virtual stacking of up to 16 units with GSW-0890/2690/2693
- Provides 802.1p QoS for traffic prioritization, 802.3ad link aggregation and bandwidth control
- 802.1d/w/s with spanning tree and IGMP snooping
- Secured 802.1x port-based access control
- Supports 9K jumbo frame

## Ethernet Switches Comparison

Model	GSW-2440	GSW-2473	GSW-1676 / GSW-2476	GSW-4876	GSW-5270	GSW-0890
<b>Ports/Expansion</b>	24 x 10/100/1000T	24 x 10/100TX 2 x 10/100/1000T 2 x 1000FX-SFP	16/24 x 10/100/1000T 4 x 1000FX-SFP	48 x 10/100/1000T 4 x 1000FX-SFP	48 x 10/100TX 4 x 10/100/1000T 2 x 1000FX-SFP	8 x 10/100/1000T 2 x 1000FX-SFP
<b>Slots MAC Table</b>	8K	4K	8K	8K	8K	8K
<b>Buffer Memory</b>	500 KB	512 KB	400 KB	1 MB	128 KB	144 KB
<b>Backplane</b>	48 Gbps	8.8 Gbps	32/48 Gbps	48 Gbps	17.6 Gbps	16 Gbps
<b>Management</b>	Web browser	Web/Console	Web browser	Web browser	Web browser	SNMP/Web/Console/Telnet

## Layer 2 Managed Fast/Gigabit Ethernet Switches


**GSW-1290**  
**4 GE Combo SFP + 2 GE Expandable Slots**  
**L2 Managed Switch**

- Provides a total of 9.6 Gbps bandwidth managed via a single IP address
- Acts as a stand alone switch with 12 Gigabit Ethernet ports combined MDU-1290M and MDU-1290T modules via two expansion slots.
- Acts as a master stacking switch combined with MDU-1290S 4-Port stacking modules
- Able to stack 12 GSW-2492 switches in star topology to provide 288 x 10/100Mbps ports
- Supports 9K jumbo frame


**GSW-2693**  
**24 FE PoE + 2 GE Combo SFP L2 Managed**  
**Stacking Switch**

- Enables a LAN with PoE powered devices with a central power source
- 802.3ad port trunking with LACP and 802.1p QoS
- Supports virtual stacking of up to 16 units with GSW-0890/2690/2693
- Features an easy to use web-based user-interface management
- Supports up to 15.4W for 12 ports or up to 7.7W for 24 ports
- 802.1Q Q-in-Q VLAN with up to 256 active VLANs
- 802.1d/w/s with spanning tree and rate control


**GSW-2690**  
**24 FE + 2 GE Combo SFP L2 Managed**  
**Stacking Switch**

- Combines copper and fiber network connectivity into one device
- Supports virtual stacking of up to 16 units with GSW-0890/2690/2693
- Provides 802.3ad port trunking and 802.1p QoS
- Non-Blocking full wire speed architecture
- Features an easy to use web-based user-interface management
- Secured 802.1x access control
- 802.1Q Q-in-Q VLAN with up to 256 active VLANs
- 802.1d/w/s with spanning tree and rate control


**FGP-2472**  
**24 FE PoE + 2 GE Combo SFP**  
**L2 Managed Switch**

- 24 x 10/100Mbps auto-negotiation RJ-45 ports
- 2 dual media for flexible fiber connection
- Compatible with IEEE 802.3/10/100/1000T
- Compatible with IEEE802.1d and IEEE802.1w Rapid Spanning Tree
- 802.1Q Q-in-Q VLAN with up to 4094 active VLANs
- Supports Link Aggregation Control Protocol (LACP)
- Supports Virtual Stacking up to 16 switches through single IP address
- Supports 8K MAC address entries
- PoE power budget 380W


**FGL-2870**  
**24 FE + 4 GE Combo SFP**  
**L2 Managed Switch**

- 24 x 10/100Base-TX + 4 Gigabit Combo (RJ-45/SFP) ports
- IP clustering for single IP management (up to 36 switches)
- Fan-less hardware design
- Supports advanced IEEE 802.1x port-based/MAC-based access control
- Advanced QoS features for triple play
- Supports DHCP snooping and option 82 relay
- Provides IPv6 Management


**GEL-2870**  
**24 GE + 4 GE Combo SFP**  
**L2 Managed Switch**

- 24 x 1000Base-T + 4 Gigabit Combo (RJ-45/SFP) ports
- Fan-less hardware design
- Supports advanced IEEE 802.1x port-based/MAC-based access control
- Advanced QoS features for triple play
- Supports DHCP snooping and option 82 relay
- Provides IPv6 Management
- Saves up to 50% power with LevelOne Green Technology

## Ethernet Switches Comparison

Model	GSW-1290	GSW-2693	GSW-2690	FGP-2472	FGL-2870	GEL-2870
Ports/Expansion	4 x 10/100/1000T	24 x 10/100TX-PoE	24 x 10/100TX	24 x 10/100TX-PoE	24 x 10/100TX	24 x 10/100/1000T
	4 x 1000FX-SFP	2 x 10/100/1000T	2 x 10/100/1000T	2 x 10/100/1000T	4 x 10/100/1000T	4 x 10/100/1000T
	2 x Expansion slots	2 x 1000FX-SFP	2 x 1000FX-SFP	2 x 1000FX-SFP	4 x 1000FX-SFP	4 x 1000FX-SFP
Slots MAC Table	16K	8K	8K	8K	8K	8K
Buffer Memory	1 MB	256 KB	384 KB	256 KB	1 MB	1.75 MB
Backplane	24 Gbps	8.8 Gbps	8.8 Gbps	8.8 Gbps	12.8 Gbps	56 Gbps
Management	SNMP/Web/Console/Telnet	SNMP/Web/Console/Telnet	SNMP/Web/Console/Telnet	Web/Console	SNMP/Web/Console/Telnet	SNMP/Web/Console/Telnet



## Layer 2 Managed Gigabit Ethernet Switches


**GSW-4896**  
**48 GE + 4 GE Combo SFP L2**  
**Managed Switch**

- High performance L2 SNMP network switch for office and Metro-LAN applications
- Supports 802.3ad port trunking with LACP
- Provides 802.1Q VLAN, 802.1p QoS and 802.1D/w spanning tree protocol
- Non-blocking full wire speed architecture
- DHCP broadcasting suppression and port mirroring
- Features a built-in web-based and CLI management user-interface


**GSW-2493**  
**4-Slot Modular Combo L2 Managed Switch**

- 3 slots for 8-Port 10/100TX or 8-Port 100FX modules
- 1 slot for 2-Port 1000T copper or 2-Port SFP modules
- Compatible with IEEE802.3/3u/ab/z
- Supports 802.1Q and port-based VLAN, 802.1d spanning tree and 802.3ad port trunking with LACP
- Provides multimedia applications via IGMP and 802.1p Quality of Service
- Supports SNMP v1 network management interface with 4 RMON groups
- Features an easy to use web-based user-interface


**GTL-2690**  
**20 GE + 4 GE Combo SFP + 2 10GE XFP**  
**Module Slot L3 Managed Stackable Switch**

- L3 hardware stacking up to 8 units to a maximum of 200 ports
- 20 RJ-45 10/100/1000Base-T + 4 Combo GE (RJ-45/SFP) ports
- 2 stacking ports for hardware stacking up to 320Gbps throughput
- Supports robust IPv4&IPv6 routing and management: PIM-DM; PIM-SM; DVMRP; IGMP
- Advanced QoS for marking, classification, and scheduling to deliver best-in-class performance for data, voice, and video traffic at wire speed

## Ethernet Switches Comparison

Model	Ports/Expansion	Slots MAC Table	Buffer Memory	Backplane	Management
<b>GSW-4896</b>	48 x 10/100/1000T; 4 x 1000FX-SFP	8K	400 KB	96 Gbps	SNMP/Web/Console/Telnet
<b>GSW-2493</b>	4 x Expansion slot	8K	384 KB	8.8 Gbps	SNMP/Web/Console/Telnet
<b>GTL-2690</b>	24 x 10/100/1000T; 4 x 1000FX-SFP	8K	2 MB	128 Gbps	SNMP/Web/Console/Telnet

## Accessories

## Unmanaged Ethernet Switches

Model: MDU-0122FXT	Model: MDU-0123FXC	Model: MDU-2453T	Model: MDU-2453M	Model: MDU-2453TM
<b>Description:</b> 1-Port 100FX Multi-mode ST Module <b>Works with:</b> FSW-2409TFX	<b>Description:</b> 1-Port 100FX Multi-mode SC Module <b>Works with:</b> FSW-2409TFX	<b>Description:</b> 8-Port 10/100/1000TX Module <b>Works with:</b> GSW-2453	<b>Description:</b> 8-Port SFP Module <b>Works with:</b> GSW-2453	<b>Description:</b> 4-Port TP + 4-Port SFP Gigabit Ethernet Module <b>Works with:</b> GSW-2453

## Managed Gigabit Ethernet Switches

Model: MDU-2493SXSC	Model: MDU-2493LXSC	Model: MDU-2493TX	Model: MDU-0140 / MDU-0142	Model: MDU-1290T
<b>Description:</b> 8-Port 100FX Multi-mode SC Module (2km) <b>Works with:</b> GSW-2493	<b>Description:</b> 8-Port 100FX Single-mode SC Module (30km) <b>Works with:</b> GSW-2493	<b>Description:</b> 8-Port 10/100TX Module <b>Works with:</b> GSW-2493	<b>Description:</b> 2-Port 10/100/1000TX Module; 2-Port SFP Module <b>Works with:</b> GSW-2493	<b>Description:</b> 4-Port 10/100/1000TX Module <b>Works with:</b> GSW-1290

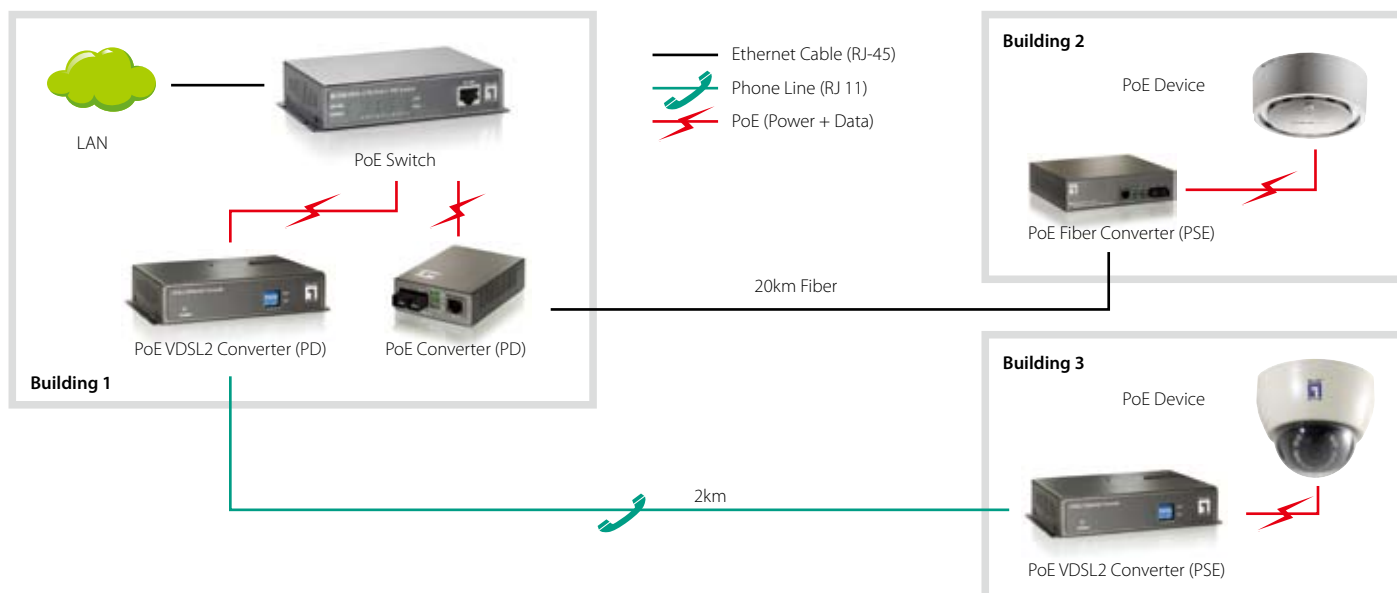
## Managed Gigabit Ethernet Switches

Model: MDU-1290M	Model: MDU-1290S	Model: MDU-0162	Model: ACP-03K2 / ACP-13K2	Model: RPS-04A2
<b>Description:</b> 4-Port SFP Module <b>Works with:</b> GSW-1290	<b>Description:</b> 4-Port Stacking Module <b>Works with:</b> GSW-1290	<b>Description:</b> 10G XFP Module <b>Works with:</b> GTL-2690 / XFP-5211 / XFP-5901	<b>Description:</b> 30/130cm Stacking Cable <b>Works with:</b> GTL-2690	<b>Description:</b> Redundant Power Supply <b>Works with:</b> GTL-2690



## LevelOne Media Converters

LevelOne has unique solutions to convert Ethernet data. Our newest VDSL2 converters are innovative industry leaders. We're now able to offer 300+ meter over traditional RJ-11 phone wiring, which beats the normal 100 meter runs of Cat.5 cables. Our fiber converters follow all the IEEE standards and reliably easy to install solutions that connect individual network over long distances. With built-in PoE functionality, users are capable to build deployments that aren't limited by power outlets or extension cords.



### Ethernet Media Converters



**FVT-0103TXFC / FVT-0104TXFC**  
10/100BASE-TX to 100BASE-FX  
Multi/Single-Mode Fiber Converter  
with PoE (SC)

- PoE enabled 100TX to 100FX-SC media converters
- Converts 100TX Fast Ethernet to 100FX Fast Ethernet
- SC fiber connector for long range fiber optic connectivity
- Provides 802.3af PoE PD compatible and DIP switch to set configurations
- Simplified troubleshooting with "Link-Loss-Forwarding"
- Over-current protection and under-current detection



**FVT-0203TXFC / FVT-0204TXFC**  
10/100BASE-TX to 100BASE-FX  
Multi/Single-Mode Fiber Converter  
with PoE Injector (SC)

- PoE enabled 100TX to 100FX-SC media converter
- Convert 100TX Fast Ethernet to 100FX Fast Ethernet
- SC fiber connector for long range fiber optic connectivity
- Provides 802.3af PoE PSE compatible and DIP Switch to set configurations
- Simplified troubleshooting with "Link-Loss-Forwarding"
- Features PSE MDI power enabling/disabling and internal AC power supply
- Provides Link Fault Pass (LFP) and Far End Fault (FEF)



**FVT-6001 / FVT-6301**  
10/100BASE-TX to  
100BASE-FX Fiber Converter  
with TS-1000 Support (SC)

- Compatible with IEEE 802.3, 802.3u, 802.3x standards
- Converts network signals between UTP copper and fiber optic cabling
- SC fiber connector with TS-1000 support
- Designed as standalone converter that can also be used in module converter chassis
- Supports 10/100 auto-negotiation and auto MDI/MDI-X, half/full duplex mode
- Simplified troubleshooting with "Link-Loss-Forwarding"

### Ethernet Media Converters Comparison

Model	FVT-0103TXFC	FVT-0104TXFC	FVT-0203TXFC	FVT-0204TXFC	FVT-6001	FVT-6301
Connector	100TX to 100FX-SC	100TX to 100FX-SC	100TX to 100FX-SC	100TX to 100FX-SC	100TX to 100FX-SC	100TX to 100FX-SC
Mode	Multi	Single	Multi	Single	Multi	Single
Distance	2 km	20 km	2 km	20 km	2 km	30 km
Standards Compliance	802.3/3u/3af/3x	802.3/3u/3af/3x	802.3/3u/3af/3x	802.3/3u/3af/3x	802.3/3u/3x	802.3/3u/3x

## Ethernet Media Converters


**FVT-4001 / FVT-4301 / FVT-4002**  
**10/100BASE-TX to 100BASE-FX**  
**Multi/Single-Mode Fiber Converter**

- Connector: Duplex SC (FVT-4001/ FVT-4301) / Duplex ST (FVT-4002)
- Multi-mode fiber transmission (FVT-4001/ FVT-4002)
- Single-mode fiber transmission (FVT-4301)
- UTP to fiber switching media conversion
- Auto-negotiation speed in half/full duplex mode
- TX port supports auto MDI/MDI-X crossover
- Built-in Smart Link Error Detection technology
- Standalone converter or slotted into a converter chassis
- Hot-swappable

**GVT-4000**  
**10/100/1000BASE-TX to 1000BASE-FX**  
**Converter (SFP)**

- UTP to fiber (mini-GBIC) media converter
- Auto-negotiation speed, half/full duplex
- Provides TX port support auto MDI/MDI-X
- Built-in Link-Loss-Forwarding technology
- Hot-swappable for chassis
- Provides standalone or mounted in converter chassis (refer to page 35 accessories for optional SFP transceiver)

**GVT-4001**  
**10/100/1000BASE-T to 1000BASE-SX**  
**Multi-Mode Fiber Converter (SC)**

- UTP to fiber media converter
- Auto-negotiation speed, half/full duplex
- Provides TX port support auto MDI/MDI-X
- Built-in Link-Loss-Forwarding technology
- Hot-swappable for chassis
- Works as standalone converter or slotted into Converter Chassis (FVT-4000)

## Ethernet Media Converters Comparison

Model	FVT-4001	FVT-4002	FVT-4301	GVT-4000	GVT-4001
Connector	100TX to 100FX-SC	100TX to 100FX-ST	100TX to 100FX-SC	1000TX to 1000FX-SFP	1000TX to 1000FX-SC
Mode	Multi	Multi	Single	Single/Multi	Multi
Distance	2 km	2 km	30 km	80 km or 550m	550 km
Standards Compliance	802.3/3u/3x	802.3/3u/3x	802.3/3u/3x	802.3/3u/3ab/3z/3x	802.3/3u/3ab/3z/3x

## Converter Chassis


**FVT-4000**  
**10-Slot Media Converter Chassis with**  
**Redundant Power Supply**

- Accommodate up to 10 media converters
- Supports Ethernet, Fast Ethernet, Gigabit Ethernet, single-mode fiber and multimode fiber media converters
- Converters are individually secured and are hot-swappable for maximum connection reliability
- Includes a redundant hot-swappable power supply for continuous network operation
- Standard 19-inch rackmount dimensions allow spacesaving convenient installation


**FVT-5000**  
**16-Slot Managed Converter Chassis with**  
**Redundant Power Supply**

- Provides support for 10/100TX to 100FX and 1000T to SFP modules
- Supports TS-1000 function for the 10/100 modules
- Hot-swappable on Converter and CPU modules
- Provides status check and management for SNMP, power, fan and media converter modules
- Features intelligent module identification capability and built-in Link-Loss-Forwarding technology
- Includes security features for network protection as well as back-door password entry
- Supports user friendly web-based user-interface and provides 19" standard rackmount size

## VDSL2 Media Converters


**VDS-0200 / VDS-0201**  
**Ethernet over VDSL2 Converter (Annex A/B)**

- Supports Annex A/B for internal splitter (option)
- ITU-T G.993.1, G.993.2 VDSL/VDSL2 and SG15Q4 DMT compliance
- Provides 100/60Mbps DownStream/UpStream for distance up to 300 meters
- Supports VDSL2 connection up to 1200 meters
- Line surge protection and five LED indicators
- Supports 2 RJ-11 for DSL and phone interfaces and 2 RJ-45 for Ethernet LAN port
- Trellis coding support up to 1024 discrete multi-tone bins and 4 Dip Switches for configuration settings
- Low-latency for video/voice/data applications
- Compact size design for desktop or rack mountable

## Converter Chassis Comparison

Model	Slot	Redundant Power	Management
FVT-4000	10	■	-
FVT-5000	16	■	SNMP/Web UI/Telnet/Console

## LevelOne VDSL2 Media Converter Comparison

Model	Max. DL/UL Speeds/Distance	RJ-45 LAN Port	RJ-11 DSL Port	RJ-11 Telephone Port	BNC Port
VDS-0200//VDS-0201	100/60 Mbps/300m	2	1	1	-

## VDSL2 Media Converters

**VDS-0202****Ethernet over VDSL2 Converter (BNC)**

- ITU-T G.993.1, G.993.2 VDSL/VDSL2 and SG15Q4 DMT Compliance
- Provides 100/60Mbps DownStream/UpStream for distance up to 400 meters
- Supports VDSL2 connection up to 1200 meters
- Line surge protection and five LED indicators
- Provides BNC connector for cable interfaces and 2 RJ-45 for Ethernet LAN port
- Trellis coding support up to 1024 discrete multi-tone bins and 4 Dip Switches for configuration settings
- Auto MDIX for 10/100BaseT Ethernet LAN Ports
- Low-latency for video/voice/data applications
- Compact size design for desktop or rack mountable

**VDS-0120****Ethernet over VDSL2 Converter (PSE)**

- Provides 100/60Mbps DownStream/UpStream for distance up to 300 meters
- Supports VDSL2 connection up to 1200 meters
- IEEE802.3af compliant - 48V Power-Sourcing-Ethernet (PSE) standard and line surge protection
- Maximum 15.4 Watt for class 3 output power
- Trellis coding support up to 1024 discrete multi-tone bins and 4 Dip Switches for configuration settings
- Auto MDIX for 10/100BaseT Ethernet LAN Ports
- Low-Latency for video/voice/data applications
- Selectable fast/Interleaved modes and fixed data rate/SNR margin
- Compact size design for desktop or rack mountable

**VDS-0130****Ethernet over VDSL2 Converter (PD)**

- Provides 100/60Mbps DownStream/UpStream for distance up to 300 meters
- Supports VDSL2 connection up to 1200 meters
- IEEE802.3af compliant PoE standard
- Compatible with Class 0 to Class 3 equipment for input voltage 36V – 60V and line surge protection
- Trellis Coding support up to 1024 discrete multi-tone bins and 4 Dip Switches for configuration settings
- Auto MDIX for 10/100BaseT Ethernet LAN Ports
- Low-latency for video/voice/data applications
- Selectable fast and interleaved modes
- Selectable fixed data rate and fixed SNR margin

**LevelOne VDSL2 Media Converter Comparison**

Model	VDS-0202	VDS-0120	VDS-0130	VDS-0110	VDS-0111
Max. DL/UL Speeds/Distance	100/60 Mbps/400m	100/60 Mbps/300m	100/60 Mbps/300m	100/50 Mbps/300m	100/50 Mbps/300m
RJ-45 LAN Port	2	1 (PoE PSE)	1 (PoE PD)	1	1
RJ-11 DSL Port	-	1	1	1	1
BNC Port	1	-	-	-	-

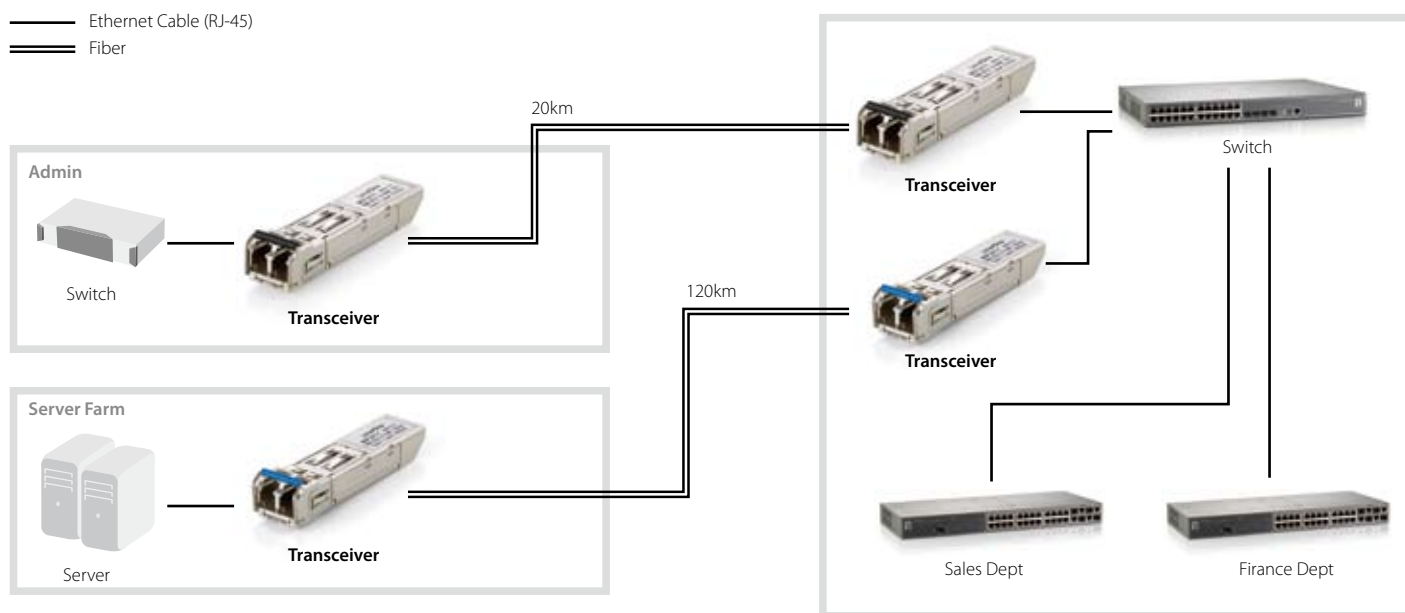
**Accessories****Model:** RPS-4000**Model:** FVT-5001**VDS-0110 / VDS-0111****Ethernet over VDSL2 Converter (Sender/Receiver)**

- Provides 100/50Mbps DownStream/UpStream for distance up to 300 meters
- Supports Line Powered VDSL2 connection
- Conforms Safety-Extra-Low-Voltage (SELV) standard
- Line surge protection
- Trellis coding support up to 1024 discrete multi-tone bins and 4 Dip Switches for configuration settings
- Auto-MDIX for 10/100BaseT Ethernet LAN Ports
- Low-latency for video/voice/data applications
- Selectable fast and interleaved modes
- Selectable fixed data rate and fixed SNR margin
- Powered by VDS-0110 through telephone line (VDS-0111)

**Description:** Redundant Power Supply  
**Works with:** FVT-4000**Model:** RPS-5000**Description:** 10/100TX to Multi-mode 100FX-SC Module (2km)  
**Works with:** FVT-5000**Model:** FVT-5301**Description:** Redundant Power Supply  
**Works with:** FVT-5000**Model:** GVT-5000**Description:** 10/100TX to Multi-mode 100FX-SC Module (30km)  
**Works with:** FVT-5000**Model:** POC-4001**Description:** 10/100/1000TX to 1000 FX-SFP Module  
**Works with:** FVT-5000**Description:** 8-Bay Media Converter Chassis  
**Works with:** VDS-0200/0201/0200

# LevelOne Fiber Optical Transceivers

The BI-DI (Bi-Directional) uses the WDM technique transceiver. The WDM (Wavelength Division Multiplexing) is technique for fiber-optic cable in which multiple optical signal channels are carried across a single strand of fiber at different wavelengths of light. This allows for a multiplication in capacity, in addition to making it possible to perform bidirectional communications over one strand of fiber.



## 155M SFP Duplex LC Fiber



### SFP-1101 155M Multi-Mode SFP Transceiver

- Data rate: 155Mbps, NRZ code
- Single 3.3V power supply
- Duplex LC connector
- AC/AC differential electrical interface
- Compatible with Multi-Source Agreement (MSA)
- Compatible with 100Base-FX of IEEE802.3u standard
- Compatible with FDDI PMD standard and ATM standard
- 1310nm with an LED light
- Transmission range up to 2km
- Works with LevelOne Converter FVS-3800



SFP-1411

### SFP-1311 / SFP-1411 155M Single-Mode SFP Transceiver

- Data rate: 155Mbps, NRZ code
- Single 3.3V power supply
- Duplex LC connector
- AC/AC differential electrical interface
- Compatible with Multi-Source Agreement (MSA)
- Compatible with 100Base-FX of IEEE802.3u standard
- Compatible with FDDI PMD standard and ATM standard
- 1310nm with a FP-Laser Diode light
- Transmission range up to 20km(SFP-1311) / 40km(SFP-1411)
- Works with LevelOne Converter FVS-3800

## 1.25G SFP Duplex LC Fiber



### GVT-0300 1.25G Multi-Mode SFP Transceiver

- Data rate: 1.25Gbps, multi-mode applications
- Single 3.3V power supply
- Duplex LC connector
- Compatible with Multi-Source Agreement (MSA)
- Compatible with IEEE 802.3z Gigabit Ethernet
- Easy to install and hot-pluggable
- Transmission range up to 550m
- Works with LevelOne Switches and Converters\*

## Transceivers Comparison

Model	SFP-1101	SFP-1311	SFP-1411	GVT-0300
Single/Multi-Mode	Multi	Single	Single	Multi
Data Rate	155 Mbps	155 Mbps	155 Mbps	1.25 Gbps
Wavelength	1310nm	1310nm	1310nm	850nm
Transmission Range	2km	20km	40km	550m

\* LevelOne Transceivers work with Converters GVT-4000/5000 and Switches GSW-0508/1621/1656/2456/2453/5150/0841/1641/2473/1676/2476/4876/5270/0809/1290/2690/2693/4896/2493/2495; FGL-2870/ GEL-2870/ GTL-2690

## 1.25G SFP Duplex LC Fiber



SFP-3611

**GVT-0301 / GVT-0302**  
**1.25G Single-Mode SFP Transceiver**

- Data Rate: 1.25Gbps, single-mode applications
- Single 3.3V power supply
- Duplex LC connector
- Compatible with Multi-Source Agreement (MSA)
- Compatible with IEEE 802.3z Gigabit Ethernet
- Easy to install and hot-pluggable
- Transmission range up to 10km(GVT-0301) / 80km(GVT-0302)
- Works with LevelOne Switches and Converters\*

**SFP-3001**  
**1.25G Multi-Mode SFP Transceiver**

- Data rate: 1.25Gbps
- Wavelength: 850nm
- Single 3.3V power supply
- Duplex LC connector
- AC/AC differential electrical interface
- Compatible with Multi-Source Agreement (MSA)
- Compatible with IEEE 802.3z standard
- Supports DDM function
- No configuration or installation software required
- Eye Safety Designed to meet LASER Class 1
- Transmission range up to 550m
- Works with LevelOne Switches and Converters\*

**SFP-3211 / SFP-3611**  
**1.25G Single-Mode SFP Transceiver**

- Data rate: 1.25Gbps, NRZ code
- Wavelength: 1310nm (SFP-3211)/ 1550nm (SFP-3611)
- Single 3.3V power supply
- Duplex LC connector
- AC/AC differential electrical interface
- Compatible with Multi-Source Agreement (MSA)
- Compatible with IEEE 802.3z standard
- No configuration or installation software required
- Eye safety designed to meet LASER Class 1
- Transmission range up to 10km(SFP-3211) / 80km(SFP-3611)
- Works with LevelOne Switches and Converters\*

## Transceivers Comparison

Model	GVT-0301 / GVT-0302	SFP-3001	SFP-3211	SFP-3611
Single/Multi-Mode	Single	Multi	Single	Single
Data Rate	1.25 Gbps	1.25 Gbps	1.25 Gbps	1.25 Gbps
Wavelength	1310nm / 1550nm	850nm	1310nm	1550nm
Transmission Range	10km / 80km	550m	10km	80km

## 155M BIDI Simplex LC Fiber



SFP-7431

**SFP-3111**  
**1.25G Multi-Mode SFP Transceiver**

- Data rate: 1.25Gbps, NRZ code
- Wavelength: 1310nm
- Single 3.3V power supply
- Duplex LC connector
- AC/AC differential electrical interface
- Compatible with Multi-Source Agreement (MSA)
- Compatible with IEEE 802.3z standard
- No configuration or installation software required
- Eye safety designed to meet LASER Class 1
- Transmission range up to 2km
- Works with LevelOne Switches and Converters\*

**SFP-3711**  
**1.25G Single-Mode SFP Transceiver**

- Data rate: 1.25Gbps, NRZ code
- Wavelength: 1550nm
- Single 3.3V power supply
- Duplex LC Connector and APD receiver
- AC/AC differential electrical interface
- Compatible with Multi-Source Agreement (MSA)
- Compatible with IEEE 802.3z standard
- No configuration or installation software required
- Eye safety designed to meet LASER Class 1
- Transmission range up to 120km
- Works with LevelOne Switches and Converters\*

**SFP-7321 / SFP-7331 / SFP-7421 / SFP-7431**  
**155M Single-Mode BIDI SFP Transceiver**

- Data rate: up to 155Mbps, NRZ code
- Single 3.3V power supply
- Single LC connector
- AC/AC differential electrical interface
- Compatible with Multi-Source Agreement (MSA)
- Compatible with IEEE 802.3ah standard
- Compatible with FDDI PMD and ATM standard
- No configuration or installation software required
- Eye safety designed to meet LASER Class 1
- Transmission range up to 20km(SFP-7321/SFP-7331)
- Transmission range up to 40km(SFP-7421/SFP-7431)
- Works with LevelOne Converter FVS-3800

## Transceivers Comparison

Model	SFP-3111	SFP-3711	SFP-7321	SFP-7331	SFP-7421	SFP-7431
Single/Multi-Mode	Muiti	Single	Single	Single	Single	Single
Data Rate	1.25 Gbps	1.25 Gbps	155 Mbps	155 Mbps	155 Mbps	155 Mbps
Wavelength	1310nm	1550nm	1310nm/1550nm	1550nm/1310nm	1310nm/1550nm	1550nm/1310nm
Transmission Range	2km	120km	20km	20km	40km	40km

\* LevelOne Transceivers work with Converters GVT-4000/5000 and Switches GSW-0508/1621/1656/2456/2453/5150/0841/1641/2473/1676/2476/4876/5270/0809/1290/2690/2693/4896/2493/2495; FGL-2870/ GEL-2870/ GTL-2690



## 1.25G BIDI Simplex LC Fiber



SFP-9231



SFP-9331



SFP-9431

**SFP-9221 / SFP-9231****1.25G Single-Mode BIDI SFP Transceiver**

- Multi data rate: up to 1.25Gbps, NRZ code
- Wavelength: 1310/1550nm (SFP-9221) / 1550/1310nm (SFP-9231)
- Single 3.3V power supply
- Single LC connector
- AC/AC differential electrical interface
- Compatible with Multi-Source Agreement (MSA)
- Compatible with IEEE 802.3z standard
- Eye safety designed to meet LASER Class 1
- Transmission range up to 10km
- Works with LevelOne Switches and Converters\*

**SFP-9321 / SFP-9331****1.25G Single-Mode BIDI SFP Transceiver**

- Multi data rate: up to 1.25Gbps, NRZ code
- Wavelength: 1310/1550nm (SFP-9321) / 1550/1310nm (SFP-9331)
- Single 3.3V power supply
- Single LC connector
- AC/AC differential electrical interface
- Compatible with Multi-Source Agreement (MSA)
- Compatible with IEEE 802.3z standard
- Eye safety designed to meet LASER Class 1
- Transmission range up to 20km
- Works with LevelOne Switches and Converters\*

**SFP-9421 / SFP-9431****1.25G Single-Mode BIDI SFP Transceiver**

- Multi data rate: up to 1.25Gbps, NRZ code
- Wavelength: 1310/1550nm (SFP-9421) / 1550/1310nm (SFP-9431)
- Single 3.3V power supply
- Single LC connector
- AC/AC differential electrical interface
- Compatible with Multi-Source Agreement (MSA)
- Compatible with IEEE 802.3z standard
- Eye safety designed to meet LASER Class 1
- Transmission range up to 40km
- Works with LevelOne Switches and Converters\*

## Transceivers Comparison

Model	SFP-9221	SFP-9231	SFP-9321	SFP-9331	SFP-9421	SFP-9431
Single/Multi-Mode	Single	Single	Single	Single	Single	Single
Data Rate	1.25 Gbps	1.25 Gbps	1.25 Gbps	1.25 Gbps	1.25 Gbps	1.25 Gbps
Wavelength	1310nm/1550nm	1550nm/1310nm	1310nm/1550nm	1550nm/1310nm	1310nm/1550nm	1550nm/1310nm
Transmission Range	10km	10km	20km	20km	40km	40km

## 1.25G Copper Transceiver

**SFP-3841****1.25G Copper Transceiver**

- Data rate: 1.25Gbps
- Single 3.3V power supply
- RJ-45 Connector
- Easy to install and hot-pluggable
- Compatible with IEEE 802.3ab standard
- 1000 BASE-T operation in host systems with SERDES interface
- Transmission range up to 100m
- Works with LevelOne Switches and Converters\*

## 10G XFP Duplex LC Fiber

**XFP-5901****10G Multi-Mode XFP Transceiver**

- Easy to install and hot-pluggable
- XFI Electrical interface
- Compatible with IEEE 802.3ae standard
- All-metal housing for superior EMI performance
- Advanced firmware allow customer system encryption information to be stored in transceiver
- Single 3.3V power supply
- 850nm VCSEL transmitter and PIN photo-detector
- Transmission range up to 300m
- Works with LevelOne Switches GTL-2690

**XFP-5211****10G Single-Mode XFP Transceiver**

- Easy to install and hot-pluggable
- XFI Electrical interface
- Compatible with IEEE 802.3ae standard
- All-metal housing for superior EMI performance
- Advanced firmware allow customer system encryption information to be stored in transceiver
- Single 3.3V power supply
- 1310nm DFB transmitter and Pin photodiode receiver
- Transmission range up to 10km
- Works with LevelOne Switches GTL-2690

## Transceivers Comparison

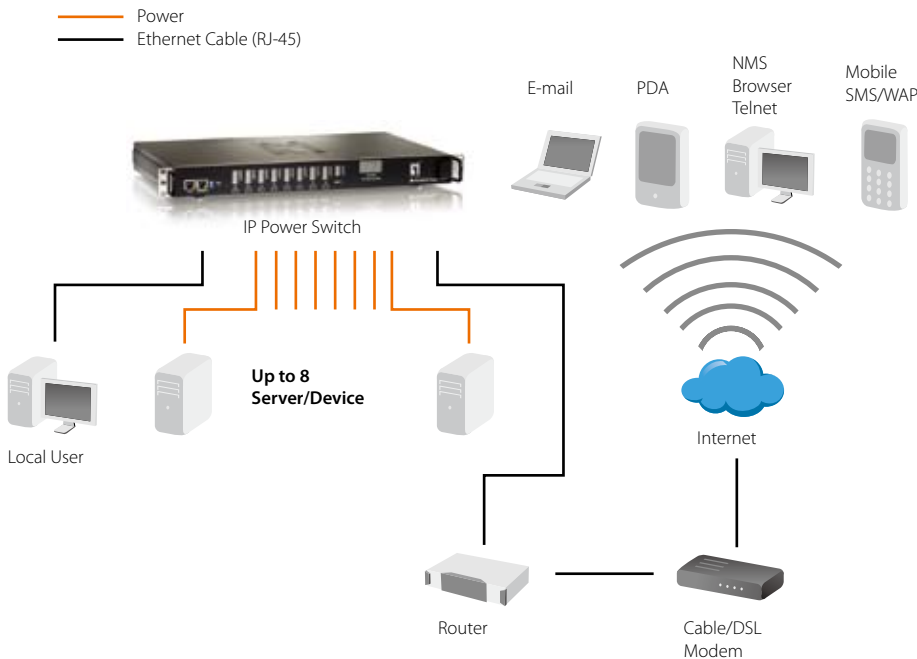
Model	SFP-3841	XFP-5901	XFP-5211
Single/Multi-Mode	-	Multi	Single
Data Rate	1.25 Gbps	10 Gbps	10 Gbps
Wavelength	-	850nm	1310nm
Transmission Range	100m	33-300m	10km

\* LevelOne Transceivers work with Converters GVT-4000/5000 and Switches GSW-0508/1621/1656/2456/2453/5150/0841/1641/2473/1676/2476/4876/5270/0809/1290/2690/2693/4896/2493/2495; FGL-2870/ GEL-2870/ GTL-2690



## LevelOne IP Power Switch

The LevelOne IP Power Switch is an ideal system of remoting management for office and larger enterprise organizations that need to reboot servers and manage the power to other network devices.

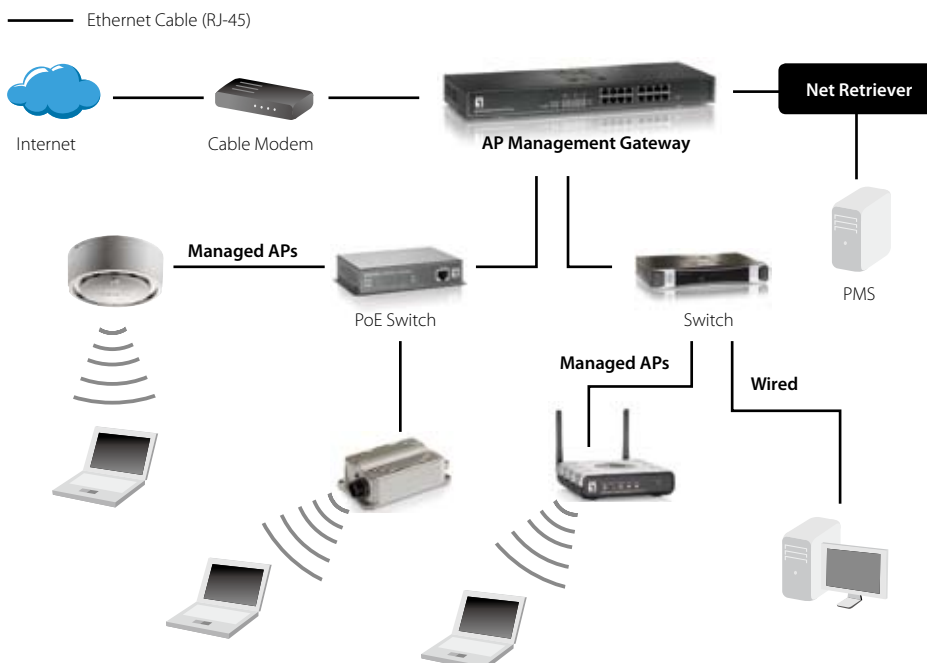


### IPS-0008 8-Port IP Power Switch

- Provides eight power outlets that can be turned on/off remotely
- Intelligently turn on/off devices by event and schedule
- Detail data-logging for statistical analysis and diagnostics
- Sends email for event notification
- Firmware upgrades via MS Windows utility and supports java applet of history log
- Supports SSL v3 and SSH v1 protocol and two level username/password security
- Supports two digital output and provides modem function for remote dial-up connection
- Easy configuration and management via web browser, Telnet or SNMP
- Optional Environmental Monitoring Device (EMD) to monitor temperature, humidity and smoke detector

## LevelOne Broadband Routers and Gateways

LevelOne Router is a great extension to any network. Either wired or wireless products, users can choose deployment from many options to easily share and manage network data. LevelOne Access Point (AP) Management Gateway is an ideal security solution for network deployment. It can efficiently centralise AP management with simple and user friendly setup.



### Wired Router



### FBR-4000 Multi-WAN Load Balance VPN Router

- Enables 4 WAN, 10 LAN, 2 DMZ auto-MDI/MDI-X 10/100Mbps RJ-45 ports
- Supports QoS and bandwidth management for critical traffic and applications
- Shares Internet access up to 253 users and supports 80,000 concurrent sessions
- Supports VPN security up to 40 tunnels with encryption of DES, 3DES, AES (128/139/256-bit)
- Supports full firewall functions to secure data connectivity with SPI, DoS, URL block filtering, and port/service blocking for additional protection
- Advanced NAT features to setup DMZ, DDNS, remote management, virtual servers, SNMP and ARP proxy

## AP Management Gateway

NEW


**WHG-1000**  
**300Mbps Wireless PoE Hotspot Gateway**

- 2 antennas with 2T/2R MIMO Technology for wireless data rates of up to 300Mbps
- Programmable Billing Profiles allow operators to customize the billing plans for On-Demand users
- Bandwidth control enables class of service for different levels of users and maximizes profits (QoS)
- Supports various broadband deployment options(T1, xDSL, Cable) via Static IP, HDPC and PPPoE
- Standard-based data encryption and user authentication: WEP, WPA, WPA2, IEEE 802.1x
- Flexible accounting and billing management


**AMG-2001**  
**Access and AP Management Gateway**

- 2 x 10/100BASE-TX WAN ports + 8 x 10/100BASE-TX LAN ports
- Simplified operation and reliable internet connection
- Security transmission via local, site-to-site and remote VPN tunnel
- Centralized AP management
- Flexible accounting and billing
- Supports for location-based hotspot services and customizable UAM Web Pages
- Property Management System (PMS) integration for hotel applications


**AMG-2100**  
**Gigabit Access and AP Management Gateway**

- 2 x 10/100/1000BASE-T WAN ports + 2 x 10/100/1000BASE-T LAN ports
- Simplified operation and reliable internet connection
- Security transmission via local, site-to-site and remote VPN tunnel
- Centralized AP management
- Supports for location-based hotspot services and customizable UAM web pages
- Property Management System (PMS) integration for hotel applications
- Built-in 4,000 local accounts and 3,000 on-demand accounts for medium-to-large scaled network deployments


**AMG-2101**  
**Gigabit Access and AP Management Gateway Plus**

- 2 x 10/100/1000BASE-T WAN ports + 2 x 10/100/1000BASE-T LAN ports
- Simplified operation and reliable internet connection
- Security transmission via local, site-to-site and remote VPN tunnel
- Centralized AP management
- Supports for location-based hotspot services and customizable UAM web pages
- Property Management System (PMS) integration for hotel applications
- Built-in 6,000 local accounts and 4,000 on-demand accounts for large scaled network deployments


**AMG-2102**  
**Gigabit Access and AP Management Gateway Pro**

- 2 x 10/100/1000BASE-T WAN ports + 4 x 10/100/1000BASE-T LAN ports
- Security transmission via local, site-to-site and remote VPN tunnel
- Centralized AP management
- Supports for location-based hotspot services and customizable UAM web pages
- Property Management System (PMS) integration for hotel applications
- Built-in 10,000 local accounts and 6,000 on-demand accounts for large scaled network deployments

## Accessories

Model: PRT-1000

NEW


**Description:** Thermal Printer  
**Works with:** WHG-1000

Model: DSA-1000

NEW


**Description:** Device Server  
**Works with:** PRT-1000 / WHG-1000

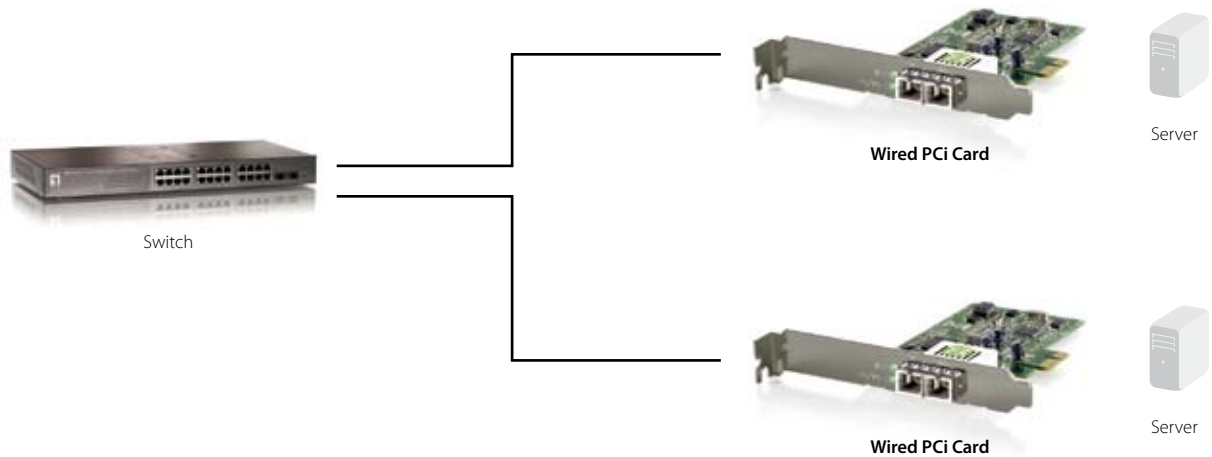
## Broadband Routers and Gateways Comparison

Model	WHG-1000	AMG-2001	AMG-2100	AMG-2101	AMG-2102
WAN Port	1 x 10/100TX	2 x 10/100TX	2 x 10/100/1000-T	2 x 10/100/1000-T	2 x 10/100/1000-T
LAN Port	2 x 10/100TX	8 x 10/100TX	2 x 10/100/1000-T	2 x 10/100/1000-T	4 x 10/100/1000-T
Managed AP	-	12	40	80	150
3 <sup>rd</sup> Part Device	40	100	200	200	400
Local Account	100	1000	4000	6000	10000
On-Demand Account	500	2000	3000	4000	6000

\*AP Management Gateways all work well with LevelOne Antennas WAB-3003; WAP-3101/6002/6011 (refer to page 44)

## LevelOne Network Adapters and Boosters

LevelOne Network Adapters come with different interfaces to suit your needs. With high-speed data transfer rates that follow all IEEE standards and protocols, you can rely on solid performance especially when bandwidth-hungry applications are being used. And the boosters can give you a huge increase in distance when building a wireless network. Whether you're looking to deploy in AP mode, giving basic wireless connectivity to devices on the network, or want to deploy a long distance wireless bridge between two buildings, these boosters provide the extra power needed to maximize your wireless network.



### Wired PCI Cards



#### FNC-0103FX 100BASE-FX Multi-Mode Fiber Optic PCI Card (ST)

- Provides 2 ST/SC multi-mode connector
- Supports IEEE 802.3i, IEEE 802.3u Fast Ethernet 10/100 BASE-TX with fiber connector
- Fast Ethernet PCI card with full/ half duplex modes
- Provides 50/125 and 62.5/125 fiber optic
- Full-duplex switching: 2km



#### FNC-0104FX 100BASE-FX Multi-Mode Fiber Optic PCI Card (SC)

- Provides 2 ST/SC multi-mode connector
- Supports IEEE 802.3i, IEEE 802.3u Fast Ethernet 10/100 BASE-TX with fiber connector
- Fast Ethernet PCI card with full/ half duplex modes
- Provides 50/125 and 62.5/125 fiber optic
- Full-duplex switching: 2km



#### GNC-0105T 32-bit Gigabit Ethernet PCI Card

- Compatible with IEEE 802.3i, 802.3u, 802.3ab, 802.3x flow control and IEEE 802.1Q priority queuing
- Provides 32-bit high-performance interface
- Provides auto MDI/MDI-X on the RJ-45 LAN port
- Link and activity diagnostic LEDs
- Provides plug-and-play for easy installation
- Supports 1Gbps half-duplex and 2Gbps full-duplex dataflow

### Wired Network Adapters Comparison

Model	FNC-0103FX	FNC-0104FX	GNC-0105T	FNC-0600TXM	FNC-0115	GNC-0111
Interface	PCI	PCI	PCI	PCI	PCI-e	PCI-e
Standard	802.3i/3u	802.3i/3u	802.3i/3u/3ab 802.3x/802.1Q	802.3i/3u/3x	802.3u/3x 802.1Q	802.3z/3x 802.1Q
Expansion Slots	10/100FX	10/100FX	10/100/1000TX	10/100TX	100FX	1000SX
Port	ST	SC	RJ-45	5 x RJ-45	SC Multi-Mode	SC Multi-Mode
Wake On LAN	-	-	-	-	■	-

## Wired PCI Cards



**FNC-0600TXM**  
**5-Port L2 SNMP Switch Card**

- Provides 32-bit PCI v2.2 Bus SNMP Fast Ethernet adapter with 5-port 10/100Mbps MDI/MDIX Switch
- Store-and-forward switching method
- Supports IEEE 802.3x for full-duplex mode and backpressure for half-duplex mode
- Self-defines 256 bytes memory I/O or register I/O based command and status register
- With SNMP/RMON/DMI network management function
- Space-saving design and RoHS compliant
- Supports MAC enhancement function for management server NIC



**FNC-0115**  
**100BASE-FX Multi-Mode Fiber Optic**  
**PCI Express Card (SC)**

- Supports 200Mbps full-duplex mode
- Provides full-duplex switching: 2 km
- High-speed PCI express interface card
- Supports IEEE 802.3x full-duplex flow control and IEEE 802.1Q VLAN tagging
- Supports on-board IP header verification and TCP/UDP checksum offload
- Supports wake-on LAN and PXE remote boot



**GNC-0111**  
**1000BASE-SX Fiber Optic**  
**PCI Express Card (SC)**

- High-speed fiber optic PCI-Express card
- Supports IEEE 802.3x flow control for 2Gbps network data transfer speeds over 550m fiber connection
- Supports multiple operation system
- Supports 9K jumbo frame rate, Pre-Boot Execution Environment (PXE), Multi-Boot Agent (MBA), Remote Program Load (RPL) and Bootstrap Protocol (BOOTP)
- Features high-level VLAN filtering function
- Supports on-board IP header verification and TCP/UDP checksum offload for received data

## Wireless Indoor Boosters



n.a. in Europe

**WBO-0500**  
**Indoor 11b/g Wi-Fi Signal Booster (500mW)**

- Complies with IEEE 802.11b/g wireless LAN devices
- Stronger output increases the quality and coverage distance of WLAN devices
- Low power consumption
- TX power auto adjustment gain
- Compact size and light-weight
- TX/RX LEDs indication
- Works well with LevelOne 11b/g routers, PCI cards, access points and antennas



n.a. in Europe

**WBO-0100**  
**Indoor 11b/g Wireless Bosster (1W)**

- Complies with IEEE 802.11b/g wireless LAN devices
- Stronger output power increases your wireless coverage and throughput
- Uses with detachable 2.4GHz antenna equipments
- Signal activity LED
- Simple plug-and-play installation
- Works well with LevelOne 11b/g routers, PCI cards, access points and antennas



n.a. in Europe

**WBO-2500**  
**Indoor 11n Wireless Booster (500mW)**

- Complies with IEEE 802.11b/g/n wireless LAN devices
- Stronger output power increases your wireless coverage and throughput
- Uses with detachable 2.4GHz antenna equipments
- Signal activity LED
- Simple plug-and-play installation
- Works well with LevelOne 11n routers and PCI cards

## Wireless Outdoor Boosters



n.a. in Europe

**WBO-5100**  
**Outdoor 11a Wi-Fi Signal Booster (1W)**

- Compatible with IEEE 802.11a wireless LAN devices
- Strengthen radio signal to increase effective range and coverage for Wi-Fi communication
- Saves wiring costs, easily build a wireless infrastructure for home or business use
- Makes broadband wireless application in all possible coverage
- Works well with LevelOne Antennas OAN-4101 and WAN-4232



n.a. in Europe

**WBO-1100 / WBO-1200 / WBO-1400**  
**Outdoor 11b/g Wi-Fi Signal Booster**  
**(1W/2W/4W)**

- Strengthen radio signal to increase the effective range and coverage for Wi-Fi communication
- Simply attach the DC Injector with 2.4GHz radio signal input plus the DC power feed to the outdoor unit and N type antenna
- Makes broadband wireless application in all possible coverage
- Increases AP's receiving sensitivity up to -100dB
- Works well with LevelOne 11b/g routers, PCI cards, access points and antennas

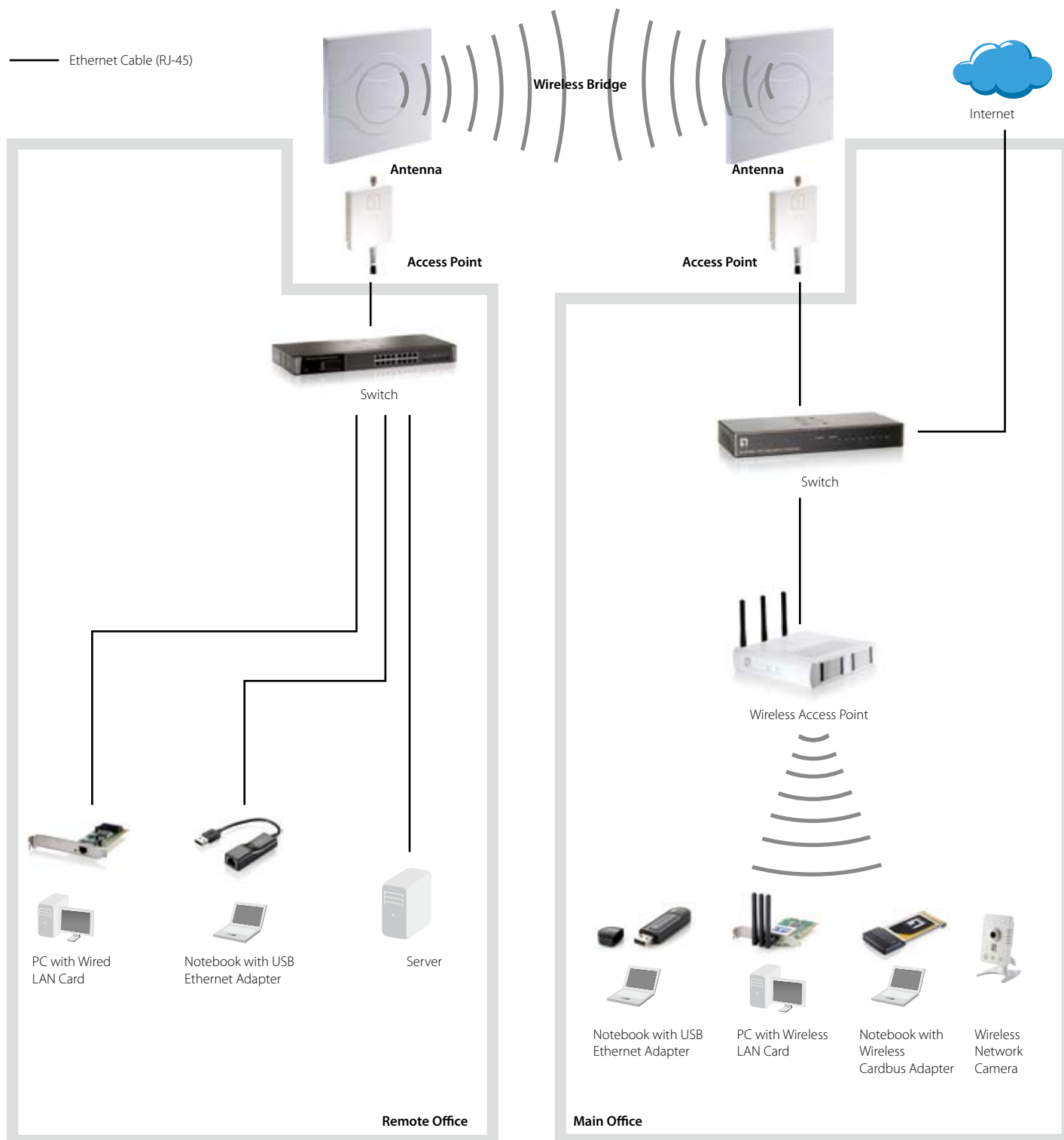
\*The output power of boosters may conflict with the wireless communication regulations in your country. Please check in advance before purchasing

## Wireless Indoor/Outdoor Boosters

Model	WBO-0500	WBO-0100	WBO-2500	WBO-5100	WBO-1100/WBO-1200/WBO-1400
Operating Area	Indoor	Indoor	Outdoor	Outdoor	Outdoor
Wireless Standard	11b/g	11b/g	11b/g/n	11a	11b/g
Connector	RP-SMA	RP-SMA	RP-SMA	RP-SMA/N-type	N-type
Output Power	500mW	1W	500mW	1W	1W / 2W / 4W

## LevelOne Wireless Bridges/Access Points/Antennas

LevelOne Bridges and Access Points create unique and flexible network architectures. Depending on your requirement, these devices make it possible to transmit wireless signals to every corner of your office. Indoor and outdoor options are available so you can create fast network for any deployment. In addition, LevelOne provides a variety of directional and omni-directional antennas, making it possible to send and receive wireless signals over distances of up to 5000m.





## Wireless Access Points (Indoor)



**WAP-3000 / WAP-3100**  
54Mbps Wireless Access Point

- WAP-3100 supports 802.3af PoE standard
- Provides fully IEEE 802.3 compatible on the Ethernet side and fully 802.11g infrastructure operating mode
- Provides 10/100BASE-TX Fast Ethernet interface
- Allows auto-fallback data rate for optimized reliability, throughput and transmission range
- Provides 64/128-bit WEP, WPA, and WPA2 network security encryption
- WDS bridging function and provides AP Client mode



**WAP-3101**  
108Mbps Wireless Ceiling PoE Access Point

- Wireless network speed up to 108Mbps with Super G
- Compatible with IEEE 802.11b/g and IEEE 802.3af PoE standard
- Supports Multi-SSID function (4 SSID) in AP mode
- Embedded 2 x 4dBi directional antennas in MIMO configuration
- Supports WEP, WPA, WPA2 and IEEE 802.1x for high level security
- Browser-based interface configuration and management
- Supports QoS (WMM) to enhance user performance and density
- Auto-detectable and managed by AMG Series (refer to page 39)



**WAP-6002**  
150Mbps Wireless Access Point

- Compatible with the IEEE 802.11b/g standards
- Wireless performance at up to 150Mbps
- Supports Wi-Fi Protected Setup (WPS) technology
- Web-based password-protected advanced user interface
- Supports Multi-SSID (Up to 8 SSIDs)
- Provides wireless security with 64/128-bit WEP, WPA, and WPA2 encryption
- Simple wireless security with one-push WPS button
- Supports Wide Dynamic Range (WDR) function
- Supports AP, Repeater, WDS AP, WDS Bridge, Client Bridge, Client Router and Router Modes
- Auto-detectable and managed by AMG Series (refer to page 39)



**WAP-6010**  
300Mbps Wireless Access Point

- 2 antennas with 2T/2R MIMO technology for wireless data rates of up to 300Mbps
- Compatible with 802.11b/g/n wireless standard on the 2.4GHz frequency
- Simple wireless security with one-push WPS button
- Supports AP, AP Client, WDS, Bridge and Repeater Modes
- Supports WEP, WPA, WPA2 and IEEE 802.1x for high level security
- Supports SNMP v1/v2c
- Supports WMM to enhance user performance and density



**WAP-6011**  
300Mbps Wireless Access Point

- 2 antennas with 2T/2R MIMO technology for wireless data rates of up to 300Mbps
- Compatible with 802.11b/g/n wireless standards
- Provides 1-Port 10/100Mbps LAN interface
- Simple wireless security with one-push WPS button
- Supports AP, AP Client, WDS and Repeater Modes
- WEP, WPA, WPA2 and 802.1x for high level security
- Full control of data traffic with Quality of Services (QoS)
- Supports Multi-SSID (Up to 8 SSIDs)
- Auto-detectable and managed by AMG Series (refer to page 39)



**WAP-6102**  
300Mbps Wireless Ceiling PoE Access Point

- 2 built-in antennas (4dBi) with 2T/2R MIMO technology for wireless data rates of up to 300Mbps
- Compatible with IEEE 802.11n and backwards compatible with 11b/g standards on the 2.4GHz frequency
- Supports AP, WDS and Repeater Modes
- WEP, WPA, WPA2 and IEEE 802.1x for high level security
- Supports Quality of Service (WMM) to enhance user performance and density
- Multi-SSID with 802.1Q VLAN Tagging in AP mode (up to 4 SSIDs)

## Wireless Access Point Comparison

Model	WAP-3000 / WAP-3100	WAP-3101	WAP-6002	WAP-6010	WAP-6011	WAP-6102
Wireless Standard	11b/g	11b/g, Super G	11b/g/n	11b/g/n	11b/g/n	11b/g/n
Antenna Connector	RP-SMA	Built-in 4dBi	RP-SMA	RP-SMA	RP-SMA	Built-in 4dBi
PoE	- / ■	■	-	-	-	■
IP Rating	-	-	-	-	-	-

## Wireless Access Points (Outdoor)



**WAP-6012**  
**300Mbps Wireless Gigabit PoE Access Point**

- 3 antennas with 2T/3R MIMO technology for wireless data rates of up to 300Mbps
- Compatible with 802.11b/g/n wireless standards
- Provides 1 Gigabit Ethernet port (1000Mbps)
- 802.3af Power over Ethernet (PoE) for simple deployment
- Supports AP, AP Client, Bridge, WDS and Repeater Modes
- Supports WEP, WPA, WPA2 and 802.1x for high level security
- Supports Wi-Fi Protected Setup (WPS) technology
- Supports Multi-SSID (Up to 8 SSIDs)



**WAP-1001**  
**108Mbps Wireless Outdoor PoE Access Point**

- Provides wireless network speed up to 108Mbps with Super G
- Supports Access Point, AP client, bridge and repeater multiple operation modes
- Compact design with integrated 12dBi antenna
- Provides network security with 64/128/152-bit WEP, WPA-PSK encryption
- Supports point-to-point, point-to-multi point bridge and repeater modes
- Power over Ethernet (PoE) design to eliminate power cable and adapter expense



**WAB-3001 / WAB-3002**  
**54Mbps Outdoor PoE Access Point**

- Provides high speed data rate of up to 54Mbps
- Compatible with IEEE 802.11b/g standard
- ACK timeout adjustment for long distance applications
- Point-to-point and point-to-multipoint topology
- SNMP remote configuration management
- Optional Hi-Power RF transmission
- 802.11i and 802.1x security support
- PoE power supply and data transmission
- IP66 weather-proof design
- Integrated a 9dBi directional antenna (WAB-3001)
- Works well with LevelOne Outdoor Antennas (WAB-3002)



**WAB-7000**  
**54Mbps Dual-Band Outdoor PoE Access Point**

- 5GHz spectrum for backhaul transmission
- Point-to-point and point-to-multi point topology applications low interference, non-overlapped channels
- Easy installation with wall/pole mounting kits included
- 802.11i and 802.1x security support
- 802.3af PoE power supply and data transmission
- IP66 weather proof design
- External antenna for more applications
- Compatible with IEEE 802.11a/b/g standards operating on 2.4GHz or 5GHz



**WAB-7400**  
**54Mbps Dual-radio Outdoor PoE Mesh Access Point**

- Dual Radio for independent backhaul and local access
- allow operators to set up at both 2.4GHz and 5GHz
- Self configuration and healing support
- Compatible with IEEE 802.11a/b/g standard
- 802.3af PoE power supply and data transmission
- IP65 weather proof design
- 802.1x, 802.11i and VPN pass-through mechanisms
- MAC address access control list support to ensure secure network connection
- Supports WMM extension to improve the users experience for audio, video and voice applications
- Works well with LevelOne Outdoor Antennas



**WAB-3003**  
**108Mbps Wireless Outdoor PoE Access Point**

- Rugged, compact, and adaptive to versatile environments
- High transmit power and N-type connector
- High-speed with QoS for voice, video, and data applications
- Power over Ethernet (PoE) & flexible mounting options
- Business-class security and Multiple-SSID/VLAN tagging supported
- Auto-detectable and managed by AMG Series (refer to page 39)

## Wireless Access Point Comparison

Model	WAP-6012	WAP-1001	WAB-3001 / WAB-3002	WAB-7000	WAB-7400	WAB-3003
Wireless Standard	11b/g/n	11b/g, Super G	11b/g	11a/b/g	11a/b/g	11b/g
Antenna Connector	RP-SMA	Built-in 12 dBi	Built-in 9 dBi / N-type	N-type	N-type	N-type
PoE	■	■	■	■	■	■
IP Rating	-	IP66	IP66	IP66	IP65	IP68

## 2.4GHz Antennas



**OAN-2151**  
**15dBi Omni-Directional Outdoor Antenna**

- IEEE 802.11b/g/n Wireless applications in 2.4 ~ 2.5GHz ISM Band
- 15dBi Omni-Directional operation provides for extended wireless network coverage
- Light-weight and all-weather operation
- Outdoor antenna for public hot-spots, Wi-Fi and RFID applications
- Includes a U-Bolt mounting bracket



**OAN-2090**  
**9dBi Omni-Directional Indoor/Outdoor Antenna Kit**

- IEEE 802.11 b/g application in 2.4GHz Frequency Range
- Surge protector included to avoid lightning damage
- Omni-directional operation provides extended point to multi-point coverage
- Standard N-jack connector
- 3 meter cable, with standard N-Plug and RPSMA- Plug



**WAN-7100**  
**10.5dBi Directional Dual-Polarization Patch Antenna Kit**

- Compatible with 802.11b/g/n wireless standard
- Dual-polarization to avoid interference
- Easy to install on the wall surface
- Wideband frequency performance enables future growth and increases flexibility
- Includes 3m cables for wireless device with SMA connectors
- Works with LevelOne 11n Access Point and Router



**WAN-1112**  
**12dBi Directional Patch Indoor/Outdoor Antenna Kit**

- IEEE 802.11b/g Wireless 2.4GHz wireless applications
- Provides stable signals and extends coverage
- Directional operation
- Easy to install on wall surface
- Includes UL-168 3m cable for wireless device with SMA connector



**WAN-2185**  
**8.5dBi Pico Cell Directional Antenna**

- Compatible with 802.11b/g standard
- Extends wireless network, Indoor and Outdoor
- Waterproof and UV resistant
- Includes extension cord for easy connection to LevelOne Access Points and Routers
- Includes wall-mounting kit for easy and quick installation
- Operates on 2.4~2.5GHz frequency range



**WAN-2140**  
**14dBi Directional Panel Outdoor Antenna**

- IEEE 802.11b/g applications at the range between 2.4GHz~2.5GHz frequency band
- Easy to install for vertical or horizontal polarization
- Directional operation provides extended point to point coverage
- Integrated N-Type female connector

## Antennas Comparison

Model	OAN-2151	OAN-2090	WAN-7100	WAN-1112	WAN-2185	WAN-2140
Operating Area	Outdoor	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	Outdoor
Gain	15 dBi	9 dBi	10.5dBi	12 dBi	8.5 dBi	14 dBi
Standard	b/g/n	b/g/n	b/g/n	b/g/n	b/g/n	b/g/n
Connector	N-Jack	N-Jack	SMA-RPSMA	SMA-Jack	N-Jack	N-Jack
Range	800~3000m	400~1000m	200~800m	200~800m	350~1200m	300~3500m
Angle (horz/vert)	360°/150°	360°/15°	67°/37°	84°/23°	70°/65°	30°/33°

## 2.4GHz Antennas


**WAN-2181**  
**18dBi Panel Directional Antenna**

- IEEE 802.11b/g/n wireless applications in 2.4 ~ 2.5GHz ISM Band
- 18dBi Directional and Multi-point operation
- Light-weight and all-weather operation
- Outdoor antenna for public hot-spots, Wi-Fi and RFID applications
- DC Short and lightning protection
- Includes tilt and swivel mast mount brackets


**WAN-2218**  
**18dBi Yagi Directional Antenna**

- Supports 802.11b/g 2.4GHz Wireless applications
- Provides stable signals and extends coverage
- Easy to install on wall surface
- Directional operation

## 5GHz Antennas


**OAN-4101**  
**10dBi Omni-directional Antenna**

- Provides IEEE 802.11a applications at the range between 5.5~5.825GHz frequency band
- Surge protector to prevent the lightning-induced surges or static electricity
- Omni-directional operation provides extended point to multi-point coverage
- Easy to install


**WAN-4232**  
**23dBi Directional Outdoor Panel Antenna**

- IEEE 802.11a applications at the range between 5.150~5.875GHz frequency band
- Easy to install with vertical or horizontal polarization
- Directional operation provides extended point-to-point coverage
- Low wind resistance

## Dual Band (2.4/5 GHz) Antennas


**WAN-1160**  
**6/8dBi Dual-Band Directional Indoor Antenna**

- Dual-band for 802.11a 5.0GHz and 802.11b/g 2.4GHz wireless applications
- Provides stable signals and extends coverage
- Easy to locate in small spaces
- Provides ULA-100 1m cable for wireless device with SMA connector

## Accessories

**Model:** WAS-4002


n.a. in Europe

**Description:** 11a Wireless Antenna Splitter  
**Works with:** WAN-4220 / WAN-4231; OAN-4101

## Antennas Comparison

Model	WAN-2181	WAN-2218	OAN-4101	WAN-4232	WAN-1160
Operating Area	Outdoor	Outdoor	Outdoor	Outdoor	Indoor
Gain	18 dBi	18 dBi	10 dBi	23 dBi	6/8 dBi
Standard	b/g/n	b/g/n	a	a	a/b/g/n
Connector	N-Jack	N-Jack	N-Jack	N-Jack	Quick RP-SMA Plug
Range	1500~5000m	1500~5000m	600~2400m	1500~5000m	25~180m
Angle (horz/vert)	17°/17°	15°/15°	360°/7°	10°/10°	80°/80°

## Antenna Cables



**ANC-1430 / ANC-1440 / ANC-1470**  
RPSMA Plug to RPSMA Jack Antenna Cable

- Jacket outside diameter: 4.95±0.10mm
- Frequency range DC~6GHz
- Low loss 200 coaxial cable
- Jacket material: PVC
- Connector: RP SMA Male to RPSMA Female (3m) (ANC-1430)
- Connector: RP SMA Male to RPSMA Female (5m) (ANC-1440)
- Connector: RP SMA Male to RPSMA Female (10m) (ANC-1470)
- Works well with Indoor Access Points and Antennas (refer to page 44-47)



**ANC-2210 / ANC-2310**  
200 Series N Plug to N Plug/RPSMA Plug Antenna Cable

- Jacket outside diameter: 5.00±0.15mm
- Frequency range DC~3GHz
- CFD-200 coaxial cable
- Easy to install and extends stable signals
- For outdoor exposure incorporate the best materials for UV resistance
- Connector: N Plug to N Plug (1m) (ANC-2210)
- Connector: N Plug to RPSMA Plug (1m) (ANC-2310)



**ANC-2350 / ANC-2330**  
200 Series N Plug to RPSMA Plug Antenna Cable

- Jacket outside diameter: 4.95±0.15mm
- Jacket material: PVC
- CFD-200 Cable
- For outdoor exposure incorporate the best materials for UV resistance
- Connector: N Plug to RPSMA Plug (1.5m) (ANC-2350)
- Connector: N Plug to RPSMA Plug (3m) (ANC-2330)
- Works well with LevelOne Access Point WAB-3002/7000/7400 (refer to page 45) and Outdoor Antennas



**ANC-4230**  
400 Series N Plug to N Plug Antenna Cable

- Jacket outside diameter: 10.3±0.25 mm
- Frequency range DC~3GHz
- CFD-400 coaxial cable
- Jacket material: PVC
- Connector : N Plug to N Plug (3m)
- Works well with LevelOne Access Point WAB-3002/7000/7400 (refer to page 45) and Outdoor Antennas



**ANC-4130 / ANC-4160**  
400 Series N Plug to N Jack Antenna Cable

- Jacket outside diameter: 10.3±0.2mm
- Jacket material: PVC
- N Plug to N Jack Antenna Cable (3m) (ANC-4130)
- N Plug to N Jack Antenna Cable (6m) (ANC-4160)
- Works well with LevelOne Access Point WAB-3002/7000/7400 (refer to page 45) and Outdoor Antennas



**ANA-3100 / ANA-6100**  
3GHz/6GHz Outdoor Lighting Arrestor

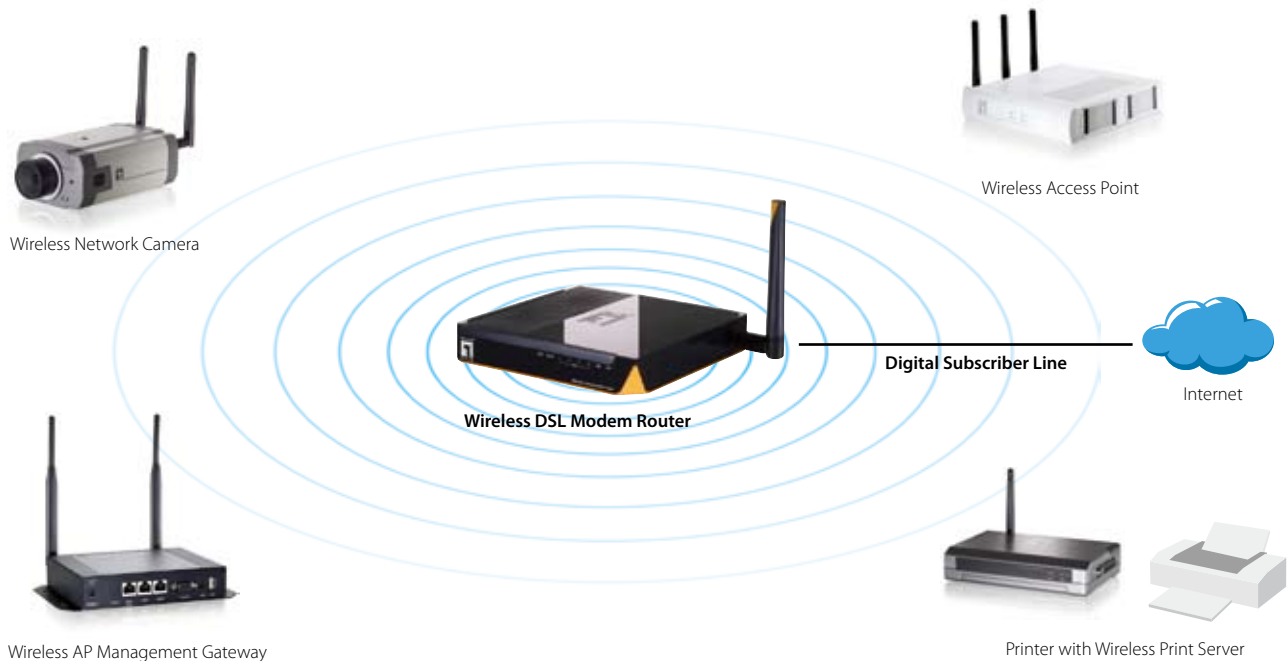
- Multi-strike capability and bi-directional protection helps protect devices from the erratic and unpredictable nature of lightning
- Easy to install wall mounting
- No configuration or installation software required
- Wi-Fi compliant with 2.4GHz 802.11b/g wireless device (ANC-3100)
- Wi-Fi Compliant with 2.4GHz 802.11b/g and 5GHz 802.11a wireless devices (ANC-6100)
- Works well with LevelOne Outdoor Antennas (refer to page 47)

## Antenna Cable Comparison

Model	ANC-1430 / ANC-1440 / ANC-1470	ANC-2210	ANC-2310	ANC-2350 / ANC-2330	ANC-4230	ANC-4130 / ANC-4160
Outer Diameter	200 series	200 series	200 series	200 series	400 series	400 series
Connector Type	RP-SMA Plug RP-SMA Jack	N Plug N Plug	N Plug RP-SMA	N Plug RP-SMA	N Plug N Plug	N Plug N Jack
Length	3m/5m/10m	1m	1m	1.5m/3m	3m	3m/6m

# LevelOne Wireless Solutions

Wireless is a rapidly growing segment for home and small office networking. LevelOne is leading the way when it comes to providing quality products that stream data at the fastest speeds while also offering the highest levels of security. And our award-winning 802.11n series give users fast and secure networks accompanied by unique and stylish designs.



## Wireless AP Management Gateway

**Model:** WHG-1000



**Description:** 300Mbps Wireless PoE Hotspot Gateway  
**See Page:** 39

## Wireless Bridge/Access Points

**Model:** WAP-3000



**Description:** 54Mbps Wireless PoE Access Point  
**See Page:** 44

**Model:** WAP-3100



**Description:** 54Mbps Wireless Access Point  
**See Page:** 44

**Model:** WAP-3101



**Description:** 108Mbps Wireless Ceiling PoE Access Point  
**See Page:** 44

## Wireless Bridge/Access Points

**Model:** WAP-6002



**Description:** 150Mbps Wireless Access Point  
**See Page:** 44

**Model:** WAP-6010



**Description:** 300Mbps Wireless Access Point  
**See Page:** 44

**Model:** WAP-6011



**Description:** 300Mbps Wireless Access Point  
**See Page:** 45

**Model:** WAP-6102



**Description:** 300Mbps Wireless Ceiling PoE Access Point  
**See Page:** 44

## Wireless Bridge/Access Points

**Model:** WAP-6012



**Description:** 300Mbps Wireless Gigabit PoE Access Point  
**See Page:** 45

**Model:** WAP-1001



**Description:** 108Mbps Outdoor PoE Access Point  
**See Page:** 45

**Model:** WAB-3001



**Description:** 54Mbps Outdoor PoE Access Point  
**See Page:** 45

**Model:** WAB-3002



**Description:** 54Mbps Outdoor PoE Access Point  
**See Page:** 45



## Wireless Bridge/Access Points

**Model:** WAB-7000

**Description:** 54Mbps Dual-Band Outdoor PoE Access Point  
**See Page:** 45

**Model:** WAB-7400

**Description:** 54Mbps Dual-radio Outdoor PoE Mesh Access Point  
**See Page:** 45

**Model:** WAB-3003

**Description:** 108Mbps Wireless Outdoor PoE Access Point  
**See Page:** 45

## Antennas

**Model:** OAN-2151

**Description:** 15dBi Omni-Directional Outdoor Antenna  
**See Page:** 46

**Model:** OAN-2090

**Description:** 9dBi Omni-Directional Indoor/Outdoor Antenna Kit  
**See Page:** 46

**Model:** WAN-7100

**Description:** 10.5dBi Directional Dual-Polarization Patch Antenna Kit  
**See Page:** 46

## Antennas

**Model:** WAN-1112

**Description:** 12dBi Directional Patch Indoor/Outdoor Antenna Kit  
**See Page:** 46

**Model:** WAN-2185

**Description:** 8.5dBi Pico Cell Directional Antenna  
**See Page:** 46

**Model:** WAN-2140

**Description:** 14dBi Panel Directional Antenna  
**See Page:** 46

## Antennas

**Model:** WAN-2181

**Description:** 18dBi Panel Directional Antenna  
**See Page:** 46

**Model:** WAN-2218

**Description:** 18dBi Yagi Directional Antenna  
**See Page:** 47

**Model:** OAN-4101

**Description:** 10dBi Omni-directional Antenna  
**See Page:** 47

## Antennas

**Model:** WAN-4232

**Description:** 23dBi Directional Outdoor Panel Antenna  
**See Page:** 47

**Model:** WAN-1160

**Description:** 6/8dBi Dual-Band 2.4/5 GHz Directional Antenna  
**See Page:** 47

## Wireless Network Cameras

**Model:** WCS-2040

**Description:** Wireless P/T/Z Network Camera  
**See Page:** 53

## Wireless Network Cameras

**Model:** WCS-1090

**Description:** Wireless Network Camera  
**See Page:** 53

**Model:** WCS-2070

**Description:** Wireless Day/Night Network Camera with Infrared LEDs  
**See Page:** 53

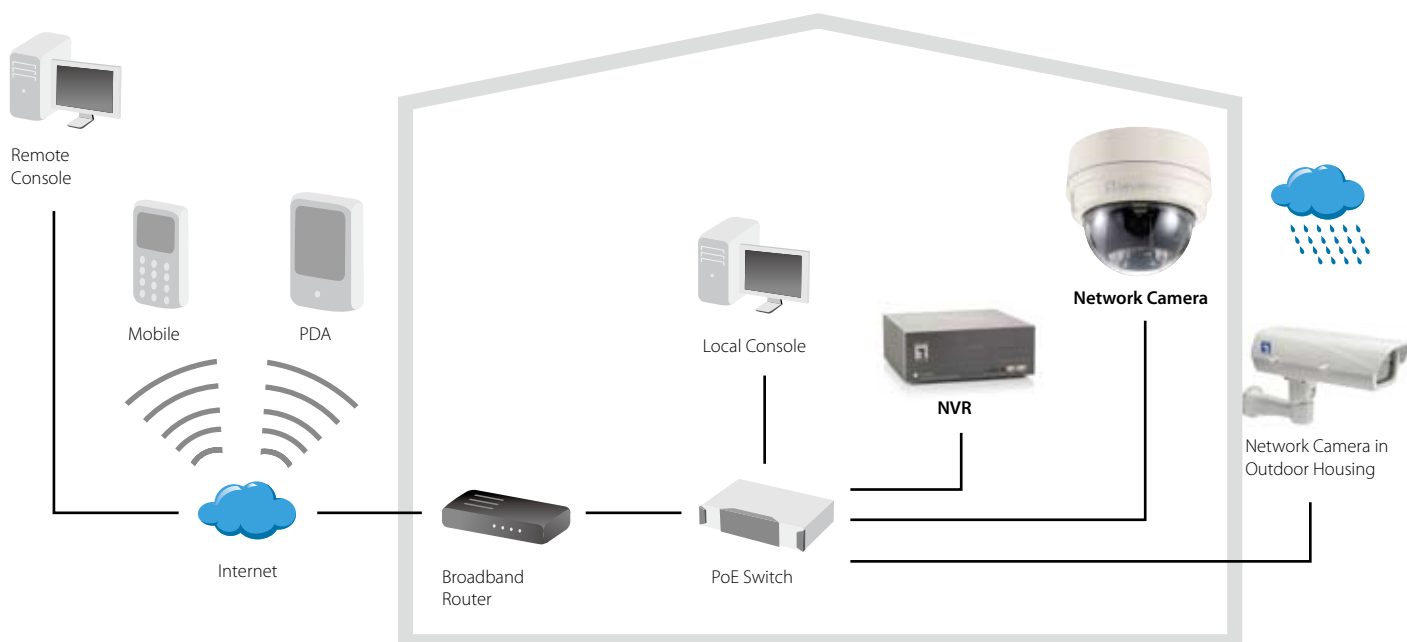
## Wireless Print/USB Servers

**Model:** WPS-1133

**Description:** Wireless Print Server (2 USB and 1 Parallel Ports)  
**See Page:** 78

# LevelOne Network Cameras

LevelOne has a wide range of options in network cameras. In particular, wireless, wired, PoE, day/night, speed dome, pan/tilt/zoom, as well as indoor and outdoor options. More, our cameras come with free 32-channel surveillance software that enables the user to view, manage, and capture streaming images from any location with an Internet connection.



## Business Network Cameras



**FCS-3021**  
PoE Dome Network Camera

- 1/4" Progressive CMOS, 640 x 480
- Supports dual streams simultaneously
- 3-axis mechanical design for ceiling/wall-mount
- Digital Input/Output (1 DI/1 DO) for sensor/alarm
- 3~6mm vari-focal lens F1.2~1.5
- 802.3af PoE compliant for easy network deployment
- Max. power consumption: 3.6W
- Works well with WBR-6022 HomeGuard22 (refer to page 6)

\*Power adapter not included



FCS-3031

FCS-3051



**FCS-3031 / FCS-3051**  
PoE PIR Dome Network Camera

- 1/4" Progressive CMOS, 640 x 480
- Supports dual streams simultaneously
- Built-in PIR sensor for motion detection, sensitivity range up to 5 meters
- Supports analog output (NTSC/PAL) for installation
- Fixed focal lens, F2.0 (FCS-3031)
- 3.3~12mm vari-focal lens, F1.4~2.9 (FCS-3051)
- Built-in 5 meters Infrared LED for day and night viewing (FCS-3051)
- Removable IR-cut filter for day and night viewing (FCS-3051)
- 802.3af PoE compliant for easy network deployment
- Max. power consumption: 10W



**FCS-3061**  
Day/Night Megapixel PoE Dome Network Camera

- 1/4" Progressive CMOS Megapixel, 1280 x 800
- H.264, MPEG4 and MJPEG compression
- 3-axis mechanical design for ceiling/wall-mount
- 3.3~12mm vari-focal lens, F1.6
- Built-in Infrared LEDs for night viewing up to 15 meters
- Removable IR-cut filter for day and night viewing
- Digital Input/Output (1 DI/1 DO) for sensor/alarm
- Remote access with Level1DNS™ service
- 802.3af PoE compliant for easy network deployment
- Max. power consumption: 8W

## Network Cameras Comparison

Model	FCS-3021	FCS-3031	FCS-3051	FCS-3061
Compression	MJPEG/MPEG4	MJPEG/MPEG4	MJPEG/MPEG4	MJPEG/MPEG4/H.264
2-Way Audio	■	■	■	■
Frame Rate	176x144: 30/25 fps 320x240: 30/25 fps 640x480: 30/25 fps	160x120: 30/25 fps 320x240: 30/25 fps 640x480: 30/25 fps	160x120: 30/25 fps 320x240: 30/25 fps 640x480: 30/25 fps	640x400: 30 fps 1280x800: 30 fps
Web Browser	IE / Safari(Mac/iOS) / Firefox <sup>1</sup>	IE / Safari(Mac/iOS) / Firefox	IE / Safari(Mac/iOS) / Firefox	IE / Safari(Mac/iOS) <sup>3</sup> / Firefox <sup>3</sup>

1. Supports H.264/MPEG4 viewing (browser needs to plug-in Quicktime player).

2. Browser needs to key in specific Web address - [http://camera\\_IP:8008](http://camera_IP:8008).

3. Network Camera needs to upgrade to version 1.0.0.26 or above.

## Business Network Cameras



**FCS-3071**  
**2-Megapixel PoE Dome Network Camera**

- 1/2.7" Progressive CMOS 2-Megapixel, 1920 x 1080
- H.264 and MJPEG compression
- Supports dual streams simultaneously
- Shockproof for rolling stock applications
- IP66 weatherproof housing and RJ-45 dongle cable
- Supports up to 20 viewers simultaneously
- Micro SD/SDHC card slot for local storage
- 802.3af PoE compliant for easy network deployment
- Single power support: PoE (802.3af)
- Max. power consumption: 3W



**FCS-3081**  
**Day/Night 2-Megapixel PoE Dome Network Camera**

- 1/2.5" Progressive CMOS 2-Megapixel, 1920x1080
- H.264 and MJPEG compression
- Supports dual streams simultaneously
- Removable IR-cut filter for Day/Night viewing
- 3-axis mechanical design for ceiling/wall-mount
- Built-in 23 pieces infrared LEDs for night viewing up to 20 meters
- BNC connector for analog video output
- Vandal-proof and weatherproof (IP66) housing
- Supports up to 20 viewers simultaneously
- Triple power support: DC 12V/ AC 24V/ PoE (802.3af)
- Max. power consumption: 5.5W



**FCS-4400**  
**P/T/Z Speed Dome Network Camera**

- 1/4" Exview HAD CCD, 704 x 480
- MPEG4 and MJPEG compression
- Supports 360° pan and 90° tilt, continuous rotation
- Supports 26x optical and 12x digital zoom
- Removable IR-cut filter for day and night viewing
- Supports a 32-preset positioning memory
- Minimum illumination of 0.05 Lux enables to monitor and record video in near total darkness
- Digital input/output (4 DI/1 DO) for sensor/alarm
- Provides BNC video output for CCTV system
- Supports 2-way audio



**FCS-1121**  
**Megapixel PoE Network Camera**

- 1/4" Progressive CMOS Megapixel, 1280 x 800
- H.264, MPEG4 and MJPEG compression
- 802.3af PoE compliant for easy network deployment
- 1 DI/1 DO for external alarm and sensor device
- Removable IR-Cut filter for day and night viewing
- Built-in SD/SDHC memory card slot for local storage
- RS-485 interface for scanner or pan/tilts control
- Remote access with Level1DNS™ service
- Triple power support: DC 12V/ AC 24V/ PoE (802.3af)
- Max. power consumption: 8W
- Optional outdoor housing: BOH-1100/BOH-1200/BOH-1300 (refer to page 55)



**FCS-1131**  
**2-Megapixel PoE Network Camera**

- 1/2.7" Progressive CMOS 2-Megapixel, 1920 x 1080
- H.264 and MJPEG compression
- Dual streaming simultaneously
- 802.3af PoE compliant for easy network deployment
- Removable IR-Cut filter for day and night viewing
- Local storage with Micro SD/SDHC slot
- BNC connector for analog video output
- Motion detection and privacy mask
- Max. power consumption: 4W
- Optional outdoor housing: BOH-1100/BOH-1200 (refer to page 55)



**FCS-1141**  
**1.3-Megapixel PoE Network Camera**

- 1/3" Sony Progressive CCD 1.3-Megapixel, 1280 x 960
- H.264, MPEG4, and MJPEG compression
- Integrated Wide Dynamic Range (WDR) function
- HD 720p real-time at dual streaming
- 2D/3D noise reduction
- Motion detection and privacy mask
- Removable IR-Cut filter for day and night viewing
- BNC connector for analog video output
- Local storage with Micro SD/SDHC slot
- Triple power support: DC 12V/ AC 24V/ PoE (802.3af)
- Max. power consumption: 6W
- Optional outdoor housing: BOH-1100/BOH-1200 (refer to page 55)

## Network Cameras Comparison

Model	FCS-3071	FCS-3081	FCS-4400	FCS-1121	FCS-1131	FCS-1141
Compression	MJPEG/H.264	MJPEG/H.264	MJPEG/MPEG4	MJPEG/MPEG4/H.264	MJPEG/H.264	MJPEG/MPEG4/H.264
2-Way Audio	-	■	■	■	■	■
Frame Rate	1280x720: 30/25 fps 1920x1080: 15/12.5 fps	640x480: 30fps 1280x720: 30fps 1920x1080: 15fps	176x120: 30/25 fps 352x240: 30/25 fps 704x480: 30/25 fps	320x192: 30/25 fps 640x400: 30/25 fps 1280x800: 30/25 fps	720x480: 30/25 fps 1280x720: 30/25 fps 1920x1080: 15/12.5 fps	720x480: 30/25 fps 1280x720: 30/25 fps 1280x960: 30/25 fps
Web Browser	IE / Safari(Mac/iOS) <sup>2</sup> / Firefox <sup>2</sup>	IE / Safari(Mac/iOS) <sup>2</sup> / Firefox <sup>2</sup>	IE	IE / Safari(Mac/iOS) <sup>3</sup> / Firefox <sup>3</sup>	IE / Safari(Mac/iOS) <sup>2</sup> / Firefox <sup>2</sup>	IE / Safari(Mac/iOS) <sup>2</sup> / Firefox <sup>2</sup>

1. Supports H.264/MPEG4 viewing (browser needs to plug-in Quicktime player).

2. Browser needs to key in specific Web address - [http://camera\\_IP:8008](http://camera_IP:8008).

3. Network Camera needs to upgrade to version 1.0.0.26 or above.

## Business Network Cameras


**FCS-1151**  
**2-Megapixel PoE Network Camera**

- 1/3.2" Progressive CMOS 2-Megapixel, 1600 x 1200
- H.264, MPEG4 and MJPEG compression
- Multiple streams simultaneously
- 802.3af PoE compliant for easy network deployment
- Removable IR-cut filter for day and night viewing
- Motion detection and privacy masks
- Video cropping for bandwidth saving
- ePTZ for data efficiency
- Tamper detection for unauthorized changes
- RS-485 interface for scanner or pan/tilts control
- Built-in SD/SDHC card slot for local storage
- Supports analog output (NTSC/PAL) for installation
- Triple power support: DC 12V/ AC 24V/ PoE (802.3af)
- Max. power consumption: 8W
- Optional outdoor housing: BOH-1100/BOH-1200 (refer to page 55)

**FCS-1091 / WCS-1090**  
**PoE / Wireless Network Camera**

- 1/4" Sony Progressive CCD, 640 x 480
- MPEG4 and MJPEG compression
- Day/night viewing with automatic IR filter switching
- Dual live video streaming to multiple users
- Motion detection and event notification via E-mail
- 802.3af PoE compliant for easy network deployment (FCS-1091)
- Max. power consumption: 8W (FCS-1091)
- 802.11b/g wireless connection with WEP & WPA-PSK (WCS-1090)
- Works well with WBR-6022 HomeGuard22 (refer to page 6)

**FCS-1070 / WCS-2070**  
**Wired/Wireless Day/Night Network Camera**

- 1/3" CCD, 704 x 480
- MPEG4 and MJPEG compression
- Day and night application in low light conditions with built-in Infrared LEDs (10m)
- Optimal synchronization of audio and video
- Extended I/O for sensors and alarms
- Provides BNC video output for CCTV system
- 802.11b/g wireless connection with WEP and WPA-PSK (WCS-2070)


**FCS-1101**  
**PoE Network Camera**

- 1/3" CCD, 704 x 480
- MPEG4 and MJPEG compression
- IEEE 802.3af PoE compliant for easy network deployment
- Up to 30 fps in full D1 resolution
- Features motion detection and event notification via E-mail
- UPnP for fast and easy installation
- Max. power consumption: 6W
- Works well with WBR-6022 HomeGuard22 (refer to page 6)

**FCS-1040 / WCS-2040**  
**Wired/Wireless P/T/Z Network Camera**

- 1/4" CCD, 704 x 480
- Motorised pan/tilt/zoom (10x optical zoom)
- MPEG4 and MJPEG compression selectable
- Extremes low light sensitivity: 0.05Lux/F1.8
- Provides pre/post alarm snapshots
- Extended I/O for sensor/alarm
- Intelligent motion detection
- Optimal synchronization of audio and video
- Supports UPnP & DDNS
- 802.11b/g wireless connection with WEP and WPA-PSK (WCS-2040)
- Optional outdoor housing: DOH-1000/DOH-1100 (refer to page 55)

**FCS-5030**  
**Day/Night Network Camera**

- 1/3" Sony CCD, 740 x 480
- MPEG4 and MJPEG compression
- 8mm lens for most common monitor angle and distance
- Provides 12 infrared LEDs for 30 meters effective distance monitor
- IP66 rated weatherproof housing
- Provides full D1 resolution at 30/25 frames per second
- Supports multi-level user access IP address filtering
- UPnP, DDNS, motion detection, and alarm snapshot

## Network Cameras Comparison

Model	FCS-1151	FCS-1091 / WCS-1090	FCS-1070 / WCS-2070	FCS-1101	FCS-1040 / WCS-2040	FCS-5030
Compression	MJPEG/MPEG4/H.264	MJPEG/MPEG4	MJPEG/MPEG4	MJPEG/MPEG4	MJPEG/MPEG4	MJPEG/MPEG4
2-Way Audio	■	■	■	■	■	■
Frame Rate	800x600: 30/25 fps 1280x720: 30/25 fps 1600x1200: 15 fps	160x120: 30/25 fps 320x240: 30/25 fps 640x480: 30/25 fps	176x120: 30/25 fps 352x240: 30/25 fps 704x480: 15/12 fps	160x120: 30/25 fps 320x240: 30/25 fps 704x480: 30/25 fps	176x120: 30/25 fps 352x240: 30/25 fps 704x480: 15/12 fps	176x120: 30/25 fps 352x240: 30/25 fps 704x480: 30/25 fps
Web Browser	IE / Safari(Mac <sup>1</sup> /iOS) / Firefox <sup>1</sup>	IE / Safari(Mac <sup>1</sup> /iOS) / Firefox	IE	IE	IE	IE / Safari(Mac <sup>1</sup> /iOS) / Firefox <sup>1</sup>

## Business Network Cameras



**FCS-5011**  
**Day/Night PoE Network Camera**

- 1/3.3" Progressive CMOS, 720x480
- MPEG4 and MJPEG compression
- 802.3af PoE compliant for easy network deployment
- 3.3~12mm vari-focal board lens with auto-iris for a variety of monitoring fields
- Built-in infrared LEDs for night viewing up to 15 meters
- WDR (Wide Dynamic Range) helps handling a wide range of lighting conditions, such as backlight situations
- RS-485 interface for sanner or pan/tilts control
- IP66 waterproof outdoor housing
- Max. power consumption: 6.5W



**FCS-5041**  
**Day/Night Megapixel PoE Outdoor Network Camera**

- 1/4" Progressive CMOS Megapixel, 1280x800
- H.264, MPEG4 and MJPEG compression
- Supports dual streams simultaneously
- Removable IR-cut filter for Day/Night viewing
- Provides an external USB interface for an optional outdoor wireless solution or USB flash drive
- Built-in infrared LEDs for night viewing up to 15 meters
- Smart Focus to get excellent image quality easily
- IP67 waterproof outdoor housing with built-in fan and heater
- Remote access with Level1DNS™ service
- Triple power support: DC12V/AC24V/PoE (802.3af)
- Max. power consumption: 12W
- 802.3af PoE compliant for easy network deployment



**FCS-5051**  
**Day/Night 2-Megapixel PoE Outdoor Network Camera**

- 1/2.7" Progressive CMOS 2-Megapixel, 1920x1080
- H.264 and MJPEG compression
- Supports dual streams simultaneously
- Removable IR-cut filter for Day/Night viewing
- Built-in Infrared LEDs for night viewing up to 20 meters
- IP66 waterproof outdoor housing
- Supports 2 privacy masks for private area protection
- Supports up to 20 viewers simultaneously
- Sun shield and cable management bracket for protected installation
- Built-in micro SD/SDHC memory card slot for local storage
- Triple power support: DC12V/AC24V/PoE (802.3af)
- Max. power consumption: 12W



**FCS-4010**  
**Speed Dome Pro Outdoor Network Camera (18x Optical Zoom)**

- 1/4" SONY Progressive CCD, 640 x 480
- MPEG4 and MJPEG compression
- Auto-removable IR-cut filter for day and night viewing
- Extended I/O for sensor and alarm (4 DI/1 DO)
- Supports 360° pan and 90° tilt, continuous rotation
- Vandal-proof and weatherproof IP66 rated for indoor and outdoor deployment
- Privacy mask for private area protection



**FCS-4020**  
**Speed Dome Pro Outdoor Network Camera (35x Optical Zoom)**

- 1/4" Sony EXview HAD CCD, 704 x 480
- MPEG4 and MJPEG compression
- Auto-removable IR-cut filter for day and night viewing
- Extended I/O for sensor and alarm (4 DI/1 DO)
- Supports 360° pan and 90° tilt, continuous rotation
- Vandal-proof and weatherproof IP66 rated for indoor and outdoor deployment
- 3D privacy mask for private area protection
- WDR (Wide Dynamic Range) for high contrast environments
- Built-in SD/SDHC card slot for local storage

## Network Cameras Comparison

Model	FCS-5011	FCS-5041	FCS-5051	FCS-4010	FCS-4020
Compression	MJPEG/MPEG4	MJPEG/MPEG4	MJPEG/H.264	MJPEG/MPEG4	MJPEG/MPEG4
2-Way Audio	■	■	■	■	■
Frame Rate	176x144: 30/25 fps 352x240: 30/25 fps 720x480: 30/25 fps	320x192: 30/25 fps 640x400: 30/25 fps 1280x800: 30/25 fps	720x480: 30/25 fps 1280x720: 30/25 fps 1920x1080: 15/12.5 fps	176x144: 30/25 fps 320x240: 30/25 fps 640x480: 30/25 fps	176x144: 30/25 fps 320x240: 30/25 fps 704x480: 30/25 fps
Web Browser	IE / Safari(Mac <sup>1</sup> /iOS) / Firefox <sup>1</sup>	IE / Safari(Mac <sup>1</sup> /iOS) <sup>3</sup> / Firefox <sup>3</sup>	IE / Safari(Mac <sup>1</sup> /iOS) <sup>2</sup> / Firefox <sup>2</sup>	IE / Safari(Mac <sup>1</sup> /iOS) / Firefox <sup>1</sup>	IE / Safari(Mac <sup>1</sup> /iOS) / Firefox <sup>1</sup>

1. Supports H.264/MPEG4 viewing (browser needs to plug-in Quicktime player).

2. Browser needs to key in specific Web address - [http://camera\\_IP:8008](http://camera_IP:8008).

3. Network Camera needs to upgrade to version 1.0.0.26 or above.



## Accessories

**Model:** CAS-1300

**Description:** 2.8-8.5mm Vari-Focal Day/Night Megapixel Lens  
**Works with:** FCS-1121/1131/1141/1151

**Model:** CAS-1200

**Description:** 3~8mm Vari-focal Lens  
**Works with:** FCS-1091/1070; WCS-1090/2070

**Model:** CAS-1101

**Description:** 5-50mm Day/Night Vari-focal Lens  
**Works with:** FCS-1091/1070; WCS-1090/2070

**Model:** CAS-4020

**Description:** 20cm Pendant Mount Kit  
**Works with:** FCS-4010/4020

**Model:** CAS-4021

**Description:** 40cm Pendant Mount Kit  
**Works with:** FCS-4010/4020

**Model:** BOH-1100

**Description:** PoE Upgradable Outdoor Housing (12VDC/24VAC)  
**Works with:** FCS-1091/1101/1121/1131/1141/1151

**Model:** BOH-1200

**Description:** PoE Upgradable Outdoor Housing with Infrared LEDs (12VDC/24VAC)  
**Works with:** FCS-1091/1121/1131/1141/1151

**Model:** BOH-1300

**Description:** PoE Upgradable Outdoor Housing (12VDC/24VAC)  
**Works with:** FCS-1101/1121

**Model:** POM-1100

**Description:** POE module  
**Works with:** BOH-1100/1200/1300

**Model:** BOH-1001

**Description:** Pole Mount Kit  
**Works with:** BOH-1100/1200

**Model:** BOH-1301

**Description:** Pole Mount Kit  
**Works with:** BOH-1300

**Model:** DOH-1000

**Description:** Domed Outdoor Housing  
**Works with:** FCS-1010/1040/1060

**Model:** DOH-1100

**Description:** Heavy-Duty Domed Outdoor Housing  
**Works with:** FCS-1010/1040/1060

**Model:** CAS-4010

**Description:** Pole Mount Kit  
**Works with:** FCS-4010/4020

**Model:** CAS-4011

**Description:** Corner Mount Kit  
**Works with:** FCS-4010/4020

**Model:** POW-1201

**Description:** 12V/1.25A Switching Power Adapter  
**Works with:** FCS-1091/1101/3021

**Model:** CAS-3015

**Description:** IR Illuminator (15m, 80° view angle, IP66 Housing)  
**Works with:** FCS-1070/1091/1121/1131/1141/1151/4x00; WCS-2070/1090

**Model:** CAS-3030

**Description:** IR Illuminator (30m, 80° view angle, IP66 Housing)  
**Works with:** FCS-1070/1091/1121/1131/1141/1151/4x00; WCS-2070/1090

**Model:** CAS-3100

**Description:** T-Bar Ceiling Mount  
**Works with:** FCS-3081

**Model:** CAS-3101

**Description:** Interior corner mount  
**Works with:** FCS-3081

**Model:** CAS-4100

**Description:** Recessed Ceiling Mount Kit for FCS-3021  
**Works with:** FCS-3021

**Model:** CAS-4200

**Description:** USB Joystick for P/T/Z Network Cameras  
**Works with:** FCS-4010/4020

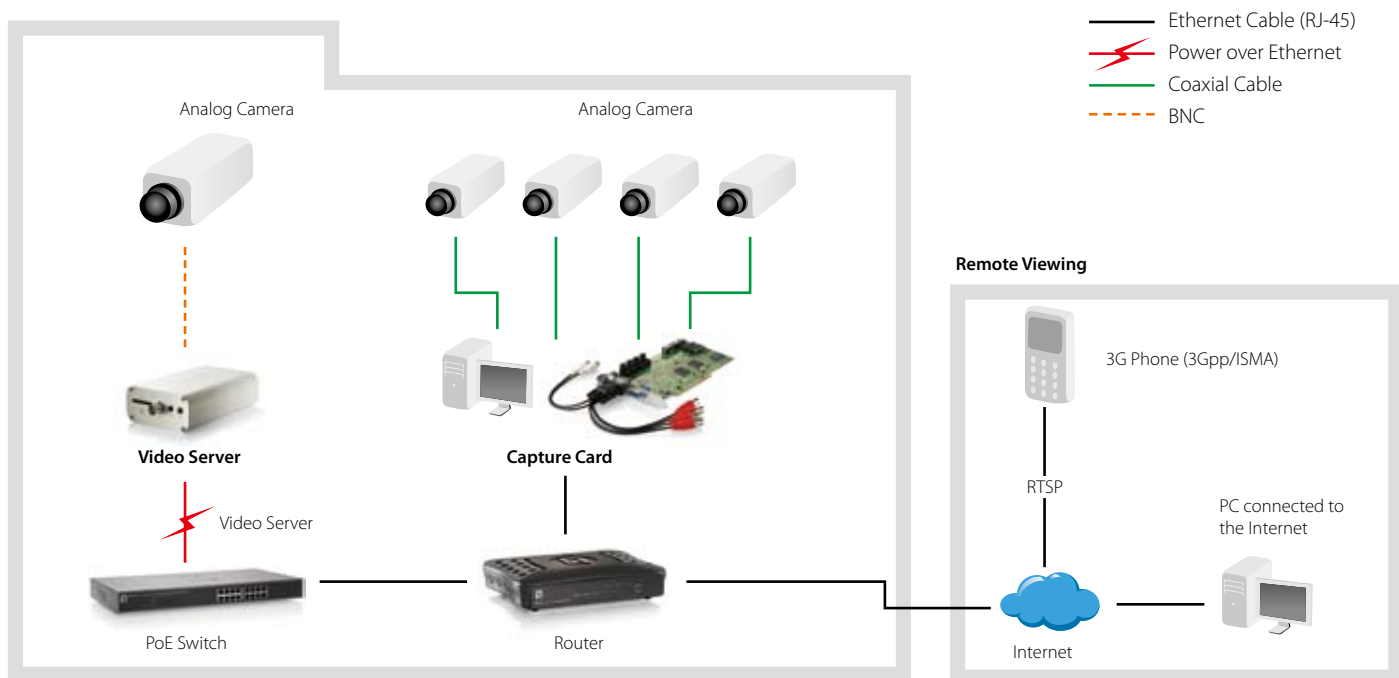
**Model:** WUA-5600

**Description:** 150Mbps 11n 2.4G High Power Outdoor Wireless USB Adapter with 7dBi Antenna  
**Works with:** FCS-5041



## LevelOne Video Servers/Captured Cards/Network Video Recorders

These useful accessories allow traditional analog/CCTV cameras to be converted into IP-based surveillance. These are great tools that allow you to keep your existing surveillance infrastructure in place, while making it easy to expand your network. IP-based surveillance also adds remote viewing capability over the Internet.



### Video Server



#### FCS-7111 1-Port H.264 PoE Video Server

- Up to 30fps in D1 resolution
- Real-time H.264, MPEG-4, and MJPEG compression
- Multiple streams simultaneously
- Built-in 802.3af compliant PoE
- 2-way audio via SIP protocol
- Digital I/O for external sensor and alarm
- RS-485 interface for scanner or pan/tilts control
- Built-in SD/SDHC card slot for local storage
- Free-Bundled 64-channel monitoring software
- Triple power support: DC12V/AC24/PoE(802.3af)
- Max. power consumption: 5W

### Captured Cards



#### FCS-8005 4-CH Analog Camera Capture Card

- Integrate analog and digital cameras on a single optimized surveillance system
- Supports the monitoring of 4 analog cameras
- Advanced motion detection and alarm functions
- View up to 60 frames per second
- Superior video resolution up to 704 x 480 (NTSC) / 704 x 576 (PAL)
- 2 ports audio inputs
- MPEG-4 compression mode
- Free-bundled 64-CH surveillance management software
- Supports Windows XP/Vista/Server 2003/7



#### FCS-8006 16-CH Analog Camera Capture Card

- Integrate analog with digital cameras on a single optimized surveillance system
- Advanced motion detection and alarm functions
- Supports the monitoring of 4 analog cameras
- View up to 120 (NTSC) / 100 (PAL) frames per second
- Superior video resolution up to 704 x 480 (NTSC) / 704 x 576 (PAL)
- 4 ports audio inputs
- MPEG-4 compression mode
- Free-bundled 32-CH surveillance management software
- Supports Windows XP/Vista/Server 2003/7

## Simple set up and a reliable, cost-effective surveillance system

The LevelOne Network Video Recorder (NVR) series is compatible with LevelOne network cameras, and offers a complete recording solution. It enables live view recording and playback for up to 16 IP network cameras via the local area network or over the Internet simultaneously. No specific software is required, just plug the NVR into your LAN connected device (switch or router) and with a few clicks it will search and configure each connected Network Camera instantly. It allows users to easily build an advanced surveillance network. Free bundled NVR Management Software to manage up to 16 NVR devices.



### Network Video Recorders



#### NVR-0204 4-CH Network Video Recorder

- Live view recording for up to 4 network cameras
- Two 3.5" hard drive slot (SATA I or SATA II)
- Gigabit Ethernet (1000Mbps) speeds
- Compression: H.264/MPEG4/MJPEG
- Supports P/T/Z, Preset Point and Preset Sequence
- Motion detected event display on E-Map
- Resolution: HD/MegaPixel/FD1/CIF/QCIF
- Exports playback videos to AVI
- Supports schedule recordings and 2-way audio
- Supports external UPS and DI/DO
- Smart camera search and mobile viewing



#### NVR-0208 8-CH Network Video Recorder

- Live view recording for up to 8 network cameras
- Two 3.5" hard drive slot (SATA I or SATA II)
- Gigabit Ethernet (1000Mbps) speeds
- Compression: H.264/MPEG4/MJPEG
- Supports P/T/Z, Preset Point and Preset Sequence
- Motion detected event display on E-Map
- Resolution: HD/MegaPixel/FD1/CIF/QCIF
- Exports playback videos to AVI
- Supports schedule recordings and 2-way audio
- Supports external UPS and DI/DO
- Smart camera search and mobile viewing



#### NVR-0216 16-CH Network Video Recorder

- Live view recording for up to 16 network cameras
- Two 3.5" hard drive slot (SATA I or SATA II)
- Gigabit Ethernet (1000Mbps) speeds
- Compression: H.264/MPEG4/MJPEG
- Supports P/T/Z, Preset Point and Preset Sequence
- Motion detected event display on E-Map
- Resolution: HD/MegaPixel/FD1/CIF/QCIF
- Exports playback videos to AVI
- Supports schedule recordings and 2-way audio
- Supports external UPS and DI/DO
- Smart camera search and mobile viewing

### Network Video Recorders

Model	NVR-0204	NVR-0208	NVR-0216
Max. Channel	4	8	16
Split/Full Screen	1/4	1/4/8	1/4/8/16
Display Mode	Live View/Playback/Full Screen	Live View/Playback/Full Screen	Live View/Playback/Full Screen
2-Way Audio	■	■	■
Compression	MJPEG/MPEG4/H.264	MJPEG/MPEG4/H.264	MJPEG/MPEG4/H.264

	Network Video Recorders
Model name	NVR-0204/NVR-0208/NVR-0216
Monitoring camera	4/8/16
Camera Support	
LevelOne	FCS-0010 (V2), FCS-0020, FCS-0030, FCS-0040, FCS-1030 (V2), FCS-1040 (V3), FCS-1060, FCS-1081A, FCS-1091, FCS-1101, FCS-1121, FCS-1131, FCS-1141, FCS-1151, FCS-3021, FCS-3031, FCS-3051, FCS-3061, FCS-3071, FCS-4010, FCS-4020, FCS-4000, FCS-4100, FCS-4200, FCS-4300, FCS-4400, FCS-4500, FCS-5011, FCS-5030, FCS-5041, FCS-7111, WCS-0010, WCS-0020, WCS-0030, WCS-0040, WCS-1090, WCS-2030 (V3), WCS-2040 (V3), WCS-2060
Abus	TV7240, TV7230, TV7203, TV7204, TV7206, TV7220, TV7221, TV7222, TV7223
ACTi	ACM1011, ACM1511, ACM1231, ACM1232, ACM3011, ACM3401, ACM3411, ACM3511, ACM4000, ACM4001, ACM4200, ACM4201, ACM5601, ACM5611, ACM7411, ACD2100, ACD2200, ACD2300, ACD2400, TCM-5311
ALinking	9122/9122p, 9751/9751w, 9852/9852w, 9451, 9351, 9551, 9552, 9553, 9152, 9652
A-MTK	VB-C300, VB-C60, VB-C500D, DCS-2102, DCS-2121, DCS-3410, DVS-N3010, DVS-N3014, DVS-N3040, DVS-N3044, DCS-N3530, DCS-N3531, DCS-N3534, DCS-N5440, DCS-N5442, DCS-N5444, DCS-N6240, DCS-N6241, DCS-N6244, DCS-N2100, DCS-N2104, BL-C1, BL-C10, BL-C20, BL-C30, BL-C111
Arecont Vision	AV1300, AV1305, AV1355, AV2100, AV2105, AV2155, AV3100, AV3105, AV3155, AV3130, AV5100, AV5105, AV5155, AV8180, AV8185, AV8360, AV8365
AVTech	AVI-201, AVI-202, AVI-203, AVN-211, AVN-212, AVN-222, AVN-244, AVN-252, AVN-263, AVN-284
AXIS	All dual-stream and H.264 capable cameras
BrickCom	WFB-100A, FD-100A, FB-100A, CB-100A, WCB-100A
Canon	BL-C131, BB-HCS301, BB-HCM100
D-Link	BB-HCM110, BB-HCM311, BB-HCM331, BB-HCM371, BB-HCM-381, KX-HCM110, KX-HCM280A, BB-HCM403, BB-HCE481, BB-HCM511, BB-HCM527, BB-HCM531, BB-HCM547, BB-HCM515, BB-HCM580, BB-HCM581, BB-HCM715, BB-HCM715
Etrovision	EV6150, EV6150A, EV6151A, EV6153A, EV6551A, EV6552A, EV8150A, EV6353A, EV6250A, EV3850A, EV3151A, EV3151, EV3150A
Hunt	All
IQinvision	IQA2xx series, IQA1xx series, IQ04xx/D4xx/05xx series, IQEye5xx, IQEye7xx/8xx series
Mobotix	M12, M22, D12, D24
Panasonic	WV-NP1004, WV-NP244, WV-NS202, WV-NF284, WJ-NT304, WV-NW484S, WV-NS202A, WV-NS954, WV-NW964, WJ-NT314, WV-NF302, WV-NP304, SNC-CS10, SNC-CS11, SNC-CS20, SNC-CS50, SNC-DF40, SNC-DF50, SNC-DF70, SNC-DF80, SNC-DS10, SNC-DS60, SNC-P1, SNC-P5, SNC-RZ25, SNC-RZ50, SNC-RX530, SNC-RX550, SNC-RX570, SNC-CM120, SNC-CS20, SNC-DM110, SNC-DM160, SNC-DS10, SNC-DS60, SNC-RH124, SNC-RH164, SNC-RS46
Pixord	P600
Sony	SNC-RS44, SNC-RS86, SNC-RS84, SNT-EX101, SNT-EX104, SNT-EX154, SNT-EP104, SNT-EP154, SNC-CH140, SNC-CH180, SNC-CH240, SNC-DH140, SNC-DH140T, SNC-DH180, SNC-DH240, SNC-DH240T, SNC-DF85, F210A, F312A, F611E, F510E/W, F511E/W, F520E, F610A, D611E, D510E, M511E/W, M510W/W, D520E, F731E, F721A, F521E, V111T, F3105, AM91xxM, AM92xxM, AM93xxM, AM95xxM, AM96xxM, AM97xxM, AM98xxM, AM90xxM, AM93xx
Toshiba	IK-WD01A, K-WB70A
Vivotek	IP7131 (V1), IP7132 (V1), IP7135 (V1), IP7137 (V1), PT7135 (V1), PT7137 (V1), IP7130, IP7133, P7134, IP7142, IZ7151, IP7153, IP7154, IP7160, IP7161, IP7251, IP7330, PZ7111, PZ7112, PZ7121, PZ7122, PZ7131, PZ7132, PZ7151, PZ7152, PT7135, FD7131, FD7132, FD7141, FD7141V, FD7151, SD73x3, IP8161
Zavio	AM95xx, AM96xx, AM97xx, AM99xx, AM62xx, AM31xM, AM32xM, AM36xM, AM30xx, AM31xx, AM32xx, AM35xx, AM36xx, AM37xx, AM38xx, AM39xx, AM61xx

# LevelOne IP Surveillance Software

The LevelOne IP CamSecure software series was developed by LevelOne to provide advanced features for digital surveillance systems. The CamSecure series is able to provide full camera control and support all LevelOne cameras as well as cameras from other manufacturers.

IP CamSecure Pro Mega Series		IP CamSecure
Main Features		
Max # of Cameras Live View, Monitor and Record	FCS-94 04/08/16/25/36/64 4/8/16/25/36/64	FCS-9064 64
Compatibility	*Compatible with LevelOne IP cameras. More IP cameras of other major manufacturers supported by FCS-94xx.	
Multi-Language Embedded	Brazil, Bulgaria, Traditional / Simple Chinese, Czech, Danish, Dutch, English, Farsi, Finnish, French, German, Greek, Hebrew, Hungarian, Italian, Japanese, Korean, Norway, Polish, Portuguese, Romanian, Russian, Serbia, Slovak, Slovenian, Spanish, Swedish.	
Hybrid Camera Management	Monitor IP digital and CCTV analog cameras in one surveillance system	
Multiple Monitor display	Up to 3 monitor	Up to 2 monitor
E-Map	Up to 10 layers	Up to 2 layers
Smart Guard	Events triggered by general motion detection, missing/ foreign object detection, signal lost, camera occlusion, lose focus, external input or system status	No
Motion Detection	Camera-based motion detection with image exclude filter for image areas of no interest in specific period status	
Smart Search	Search unusual events with specific parameters from recorded video	General Motion Only
Alarm Notification	Play sound, send emails, PoP up E-MAP on event, make phone calls, P/T/Z PRESET GO, Signal digital output, Send a SMS message, Send Snapshot to FTP/Email, on screen display and instant recording.	Instant recording
Counting Application	Count how many times objects move between different locations	No
Video Compression	MJPEG / MPEG4 / H.264	
Audio	Support full duplex real time audio	
User Account	Multiple user authentication levels with password restriction rules for unlimited users	
Log Viewer	All unusual events ,system events by date/time and/or cameras	
Recording	Continuous recording, manual recording/snapshot, record by schedule, record by digital input or triggered event, and record moving only (pre/post record buffer is up to 60 seconds).	
3GPP	**Monitor in 3G mobile devices which are equipped with 3G video playback.	No
iPhone/Smart Phone/PDA	Yes	
Digital Watermark	Yes	No
DDNS	Support DtDNS and Dynu.	No
UPnP	Search for IP cameras via UPnP	
Upgrade	No extra charge required for the further upgrade	
Playback		
Simultaneously Playback	16-CH	1-CH
Image Enhancer	Improve recorded video to get better image during playback and can be applied during export	
Search for Recordings	Search for recordings based on date, time or specific video parameters	Search for motion in continuous recordings
Playback	Controllable speed 1/16x~16x or frame by frame	
Video Clip Export	Export single BMP/JPEG/GIF/PNG/TIFF images to file or printer; Export video in AVI	
P/T/Z and I/O		
Pan/Tilt/Zoom Support	Control of P/T/Z cameras and preset positions	
Preset Patrolling	Multiple cameras patrolling	
Go to Preset on Event	Yes	No
Input/Output Control	Support digital input/output control	
Remote Access Via Remote Client Software		
Remote Client Service	Remote Live Viewer/ Remote Playback	Remote Live Viewer/Remote Playback
Pan/Tilt/Zoom Support	Control of P/T/Z cameras	
Max # of Cameras Live View	Up to 16-CH from different servers	1-CH remote live view
Max # of Cameras Playback	Up to 16-CH	1-CH remote live view
PDA / Smart Phone Client (WM 5.0 or above)	Up to 16-CH snapshot or 1-CH live display; P/T/Z and I/O control	1-CH remote live view
iPhone Safari	Up to 16-CH snapshot or 6-CH live display and P/T/Z	1-CH remote live view
iPhone Viewer	Up to 64-Ch, 6-CH per page, total up to 64-CH (depends on server)	N/A
Remote Access Via Web Browser		
Max # of Cameras Live View/Playback	Up to 4-CH / Up to 4-CH	1-CH / No support Playback
Support Browser (PC/NB)	IE browser	
Minimum System Requirements		
CPU	Intel Pentium D 930(1~16-CH Monitoring), Intel Core 2 Duo(17~32-CH Monitoring), Intel Core 2 Quad(33~64-CH Monitoring)	Intel Core 2 Duo
RAM	1 GB above	
Display	ATI Radeon 9200, nVIDIA GeForce FX-5200, Intel 945G/965G, or above (ATI recommended)	
Hard Disk	250 GB or above	
OS	Windows XP / Server 2003 / Vista / 7	
*Please visit <a href="http://www.level1.com">www.level1.com</a> for the compatible product list.		
**This feature depends on the mobile telecom service provided and the mobile phone model. LevelOne does not guarantee that this feature will work in all countries.		
***The specification is subject to change. Please visit <a href="http://www.level1.com">www.level1.com</a> for the latest specification. Users can upgrade IP CamSecure Lite(older version) to IP CamSecure(v1.26)		

## FCS-94xx

## IP CamSecure Pro Mega Series

- Monitor up to 64 channels simultaneously
  - Dual monitor supported for live view and playback simultaneously
  - "Smart guard" event analysis and instant response to monitor larger areas more efficiently
  - "Smart search" for easy locating of recorded events as well as multi-events viewer and filter
  - Enhance images of recorded video
  - "Counting application" for objects amount control
  - Supports Web-based and 3G mobile remote monitoring
  - Complete system and event log database
  - Relies on hard disk drive storage instead of video tapes
  - Broadcast live video over the Internet for remote viewing
  - Supports both digital and analog cameras in one system
  - Control pan/tilt/zoom features on cameras
- \* For LevelOne Cameras, Capture Cards and Video Servers. It also supports many other Network Cameras.

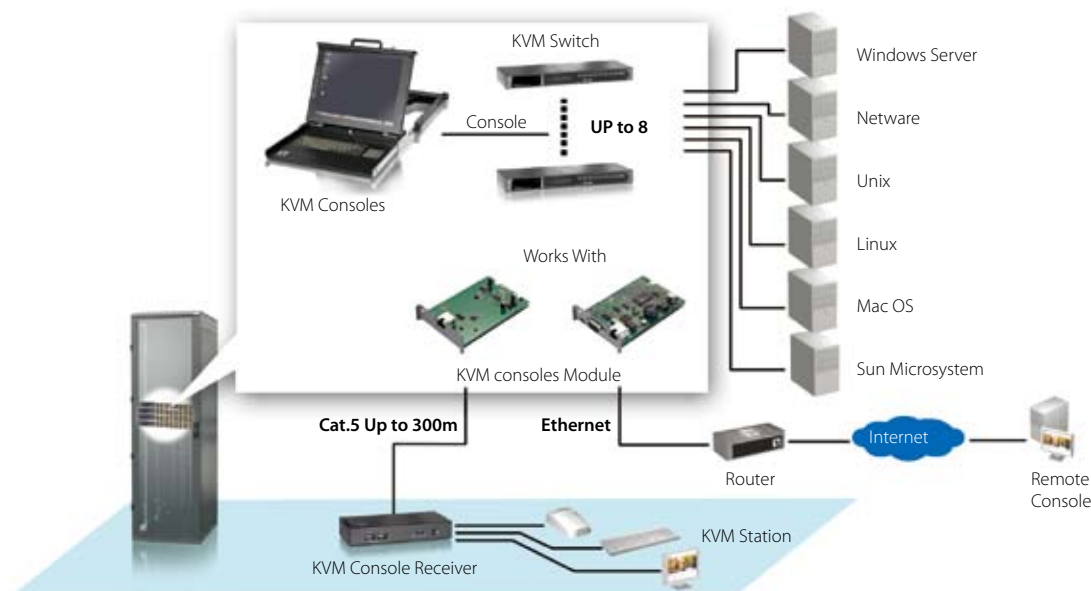


IP CamSecure Pro Mega Series	
Model name	FCS-94 04/08/16/25/36/64
Simultaneous Monitoring	4/8/16/25/36/64
Camera Support	
LevelOne	FCS-0010, FCS-0020, FCS-0030, FCS-0040, FCS-1010, FCS-1030V1.0, FCS-1030V2.0, FCS-1040, FCS-1050, FCS-1060, FCS-1070, FCS-1081, FCS-1091, FCS-1101, FCS-1121, FCS-1131, FCS-1141, FCS-1151, FCS-3000, FCS-3021, FCS-3061, FCS-3071, FCS-3081, FCS-4010, FCS-4020, FCS-4x00, FCS-5011, FCS-5030, FCS-5041, FCS-5051, FCS-7011, FCS-7111, FCS-8005, FCS-8006, WCS-0010, WCS-0020, WCS-0030, WCS-0040, WCS-1090, WCS-2010V1.0, WCS-2010V2.0, WCS-2030V1.0, WCS-2030V2.0, WCS-2030V3.0, WCS-2040, WCS-2060, WCS-2070
ACTi	ACD2000Q, ACD2100, ACD2200, ACD2300, ACD2400, ACM1011, ACM1231, ACM1232, ACM1311, ACM1431, ACM1432, ACM1511, ACM3001, ACM3011, ACM3211, ACM3311, ACM3401, ACM3411, ACM3511, ACM4000, ACM4100, ACM4200, ACM4201, ACM5001, ACM5601, ACM5611, ACM5711, ACM7411, ACM8201, ACM8211, ACM8511, CAM5130, CAM5140, CAM5150, CAM5200, CAM5201, CAM5221, CAM5300, CAM5301, CAM5321, CAM5500, CAM6100, CAM6200, CAM6220, CAM6500, CAM6510, CAM6520, CAM6600, CAM6610, CAM6620, CAM6630, CAM7100, CAM7120, CAM7200, CAM7220, CAM7300, CAM7301, CAM7320, CAM7321, CAM7322, SED2100, SED2120, SED2140, SED2310Q, SED2320Q, SED2400, SED2420, SED2600, SED2610, SEM1110, TCM4301, TCM5311
Arecont Vision	AV1300, AV1305, AV1355, AV2000, AV2100, AV2105, AV2155, AV3100, AV3105, AV3130, AV3155, AV5100, AV5105, AV5155, AV8180, AV8185, AV8360, AV8365
Atlantis Land	A02-OIPCAM1, A02-OIPCAM2, A02-OIPCAM3, A02-IPCAM5, A02-IPCAM6, A02-IPCAM7, A02-IPCAM8, A02-IPCAM9, A02-IPCAM10, A02-IPCAM11, A02-IPCAM12, A02-IPCAM13, A02-IPCAM14, A02-IPCAM15, A02-IPCAM16, A02-IPCAM17
AXIS	205, 206, 206M, 206W, 207, 207MW, 207W, 209FD, 209FD-R, 209MFD, 209MFD-R, 210, 210A, 211, 211A, 211M, 211W, 212, 213, 214, 215, 216FD, 216FD-V, 216MFD, 216MFD-V, 221, 223M, 225FD, 231D, 231D+, 232D, 232D+, 233D, 240Q, 2400, 241Q, 241QA, 241S, 241SA, 242S, 243Q, 243SA, 247S, 2460, M1011, M1011-W, M1031-W, M3011, M3014, P1311, P1343, P1344, P3301, P3301-V, P3343, P3343-V, P3343-VE, P3344, P3344-V, P3344-VE, Q1755, Q6032-E, Q7401, Q7404, Q7406
BASLER	BIP-640C, BIP-640C-DN, BIP-1000C, BIP-1000C-DN, BIP-1300C, BIP-1300C-DN, BIP-1600C, BIP-1600C-DN
D-Link	CS-6620, DCS-6620G, DCS-5220, DCS-5300, DCS-5300G, DCS-2120, DCS-3420, DCS-3220, DCS-3220G, DCS-2100, DCS-2100G, DVS-104, DVS-301, DCS-900, DCS-G900, DCS-910, DCS-920, DCS-950, DCS-950G, DCS-3110, DCS-3410, DCS-3415, DCS-5220(TW), DCS-5610, DCS-6110, DCS-6111
ETROVISION	EV3130AW, EV3130A, EV3131, EV3830H/HP, EV6130W, EV6130/P, V6131HW, EV6131H/HP, EV6132A, EV6230A, EV6332, EV6333A, EV6530, EV6531A, EV6532A
FINE	TCP-690, TCP-690DN, TCP-HP930, WB-8211SD, WB-8411, CDV-3V930, TCP-690U, TCP-HP930U, WB-8211SDU, CDV-3V930U, EP-936, EP-908, EP-601, EP-201, EP-221, EP-221DN, MD-D1200, TCP670DNU, TCP680DNU
HIKVISION	DS-2DF1, DS-2CD852MF-E, DS-2CD802PF, DS-2CD802NF, DS-2CD812PF, DS-2CD812NF, DS-2CD832PF, DS-2CD832NF, DS-2CD892PF, DS-2CD892NF, DS-2CD802PF-E, DS-2CD802NF-E, DS-2CD812PF-E, DS-2CD812NF-E, DS-2CD832PF-E, DS-2CD832NF-E, DS-2CD892PF-E, DS-2CD892NF-E, DS-2CD812PF-IR1, DS-2CD812NF-IR1, DS-2CD832PF-IR1, DS-2CD832NF-IR1, DS-2CD892PF-IR1, DS-2CD892NF-IR1, DS-2CD812PF-IR3, DS-2CD812NF-IR3, DS-2CD832PF-IR3, DS-2CD832NF-IR3, DS-2CD892PF-IR3, DS-2CD892NF-IR3, DS-2CD702PF, DS-2CD702NF, DS-2CD712PF, DS-2CD712NF, DS-2CD732PF, DS-2CD732NF, DS-2CD792PF, DS-2CD792NF, DS-2CD702PF-FB, DS-2CD702NF-FB, DS-2CD712PF-FB, DS-2CD712NF-FB, DS-2CD732PF-FB, DS-2CD732NF-FB, DS-2CD792PF-FB, DS-2CD792NF-FB, DS-6101HFI-HP, DS-2CD852MF-E, DS-2CD752MF-E, DS-2CD752MF-FB, DS-2CD752MF-FH, DS-2CD862MF-E, DS-2CD762MF, DS-2CD762MF-E, DS-2CD762MF-FH, DS-2CD762MF-FB(Hs), DS-2CD812P(N)-IR5, DS-2CD832P(N)-IR5, DS-2CD892P(N)-IR5, DS-2CD852F, DS-2CD752F-E
IQinvision	IQeye301, IQeye301m, IQeye301w, IQeye302, IQeye302w, IQeye303, IQeye303w, IQeye501, IQeye510, IQeye511, IQeye601, IQeye602, IQeye603, IQeye701, IQeye702, IQeye703, IQeye705, IQeye751, IQeye752, IQeye753, IQeye755, IQA255, IQO42S, IQeye855
JVC	VN-C20U, VN-E4(U), VN-C205U, VN-C215U, VN-C655U
Lumenera	le045c, le045c-dn, le075c, le075c-dn, le11059c, le165c, le165c-dn, le175c, le175c-dn, le259c, le275c, le275c-dn, le375c, le375c-dn, li165c
MOBOTIX	D12D-IT, D12D-Sec, D22M-Basic, D22M-IT, D22M-Sec, M10D, M12D-IT, M12D-Sec, M12D-Web, M22M-IT, M22M-Sec, Q22M-Basic, Q22M-Sec, Q24-Basic, Q24-Sec
Panasonic	BB-HCE481, BB-HCM311, BB-HCM331, BB-HCM371, BB-HCM381, BB-HCM403, BB-HCM511, BB-HCM515, BB-HCM527, BB-HCM531, BB-HCM581, BB-HCS301, BL-C1, BL-C10, BL-C11, BL-C131, BL-C20, BL-C30, BL-C101A, BL-C121A, BL-C160, KX-HCM110, KX-HCM280A, DG-NF284, DG-NF302, DG-NP240, DG-NP244, DG-NP304, DG-N5202, DG-N5202A, DG-N5950, DG-N5954, DG-NW960, DG-NW964, WJ-NT304, WJ-NT314, WV-NF284, WV-NF302, WV-NM100, WV-NP1000, WV-NP1004, WV-NP240, WV-NP244, WV-NP304, WV-NP472, WV-NP502, WV-N5202, WV-N5202A, WV-N5324, WV-N5950, WV-N5954, WV-NW484, WV-NW502S, WV-NW960, WV-NW964
PIXORD	100, 120/126/128, 200/206, 201, 205, 207, 240, 241, 261, 262, 263, 300, 400/42X, 461, 463, 1000, 1401, 2000, 4000, 405, 410, 405M, 411/412, 415M, 416
PLANET	ICA-510, ICA-700, ICA-151W, ICA-151, ICA-750, ICA-107W, ICA-107P, ICA-107, ICA-108, ICA-108W, ICA-120, ICA-230, ICA-230W, ICA-230P, ICA-M230, ICA-310, ICA-310W, ICA-312, ICA-312v2, ICA-350, ICA-350-V2, ICA-501, ICA-525, ICA-530, ICA-651, ICA-601, IVS-110
SAMSUNG	SCC-C6475, SNC-B2315, SNC-B5395, SNC-B2331, SNC-B2335, SNC-B5368, SNC-B5399, SNC-C6225, SNC-C7225, SNC-C7478, SNC-M300
SANYO	VCC-HD4000, VCC-HD4000P, VDC-DP9585P, VDC-DP9584N, VCC-9800P, VCC-9800NA, VCC-ZM600N
SONY	SNC-CM120, SNC-CS10, SNC-CS11, SNC-CS20, SNC-CS3, SNC-CS50, SNC-DF40, SNC-DF50, SNC-DF70, SNC-DF80, SNC-DF85, SNC-DM110, SNC-DM160, SNC-DS10, SNC-DS60, SNC-P1, SNC-P5, SNC-RX530, SNC-RX550, SNC-RX570, SNC-RZ25, SNC-RZ30, SNC-RZ50, SNC-Z20, SNT-V704
TOSHIBA	IK-WB02A, IK-WR01A, IK-WB21A, IK-WB15A
VIVOTEX	FD61x1, FD61x2, FD7130, FD7131, FD7132, FD7141, FD7160, IP21x1, IP21x2, IP3132, IP3133, IP3135, IP3135-PLNK, IP3136, IP3136-PLNK, IP3137, IP31x1, IP31x1TLFN, IP31x2, IP31x7, IP51x2, IP51x4, IP6114, IP6124, IP61x2, IP61x4, IP61X7, IP7130, IP7131, IP7132, IP7133, IP7134, IP7135, IP7137, IP7138, IP7139, IP7142, IP7151, IP7152, IP7153, IP7154, IP7160, IP7161, IP71x7, IP7251, IP7330, IP7361, IZ7151, PT3134, PT31x2, PT31x3, PT31x4, PT31x7, PT7000, PT7135, PT7137, PZ61x2, PZ61x4, PZ7131, PZ7151, PZ7152, PZ71X1, PZ71X2, SD61x2, SD7151, SD73X3, TC5330, TC5331, VS2101, VS2401, VS2402, VS2403, VS3100, VS3101, VS3102, VS3102-XLTH, VS7100
ZAVIO	B5110, B6110, D510E, D520E, D610A, D6111, D611E, F210A, F3100, F3105, F312A, F5100, F5105, F510E, F510W, F5110, F5115, F511E, F511W, F520E, F521E, F531E, F610A, F611E, F721A, F731E, M510E, M510W, M511E, M511W, P5110, P5115, V111T



# LevelOne KVM Switches/Consoles/Extenders

LevelOne KVM switches include award-winning designs that look great on any desktop. With a small footprint and plug-and-play installation, these devices help you to switch between computers with ease. Both PS/2 and USB connections are available to support any operating system. Our professional level rackmount and drawer consoles provide advanced features such as remote management and control of up to 128 different servers.



## Desktop KVM Switches



KVM-0411

KVM-0412

KVM-0421

KVM-0422



### KVM-0411 / KVM-0412 4-Port PS/2 KVM Switch

- Flexible switching for uninterrupted multimedia
- Control and manage 4 computers by using a single PS/2 keyboard mouse and monitor
- Offers user-programmable simultaneous or independent PC and audio switching
- High 2048x1536 pixels VGA resolution
- Auto-scan mode for PCs monitoring
- LED display for easy monitoring of PC activity
- Plug-and-play operation, no software installation or power supply required
- Audio support allows user to connect the audio ports of each computer to the KVM switch (KVM-0411)

### KVM-0421 / KVM-0422 4-Port USB KVM Switch

- Control and manage 4 computers by using a single USB keyboard, mouse and monitor
- High 2048x1536 pixels VGA resolution
- USB interface power supply
- Easy switching between computers with keyboard hotkeys push button and utility (or software) selection
- Plug-and-play operation, no software installation or power supply required
- At-a-glance LED for easy monitoring of PC activity
- Audio support allows user to connect the audio ports of each computer to the KVM switch (KVM-0421)

### KVM-0306 3-Port DVI KVM Switch with Audio

- Features a DVI interface for better video quality through digital signal transmission
- Controls 3 DVI computers from a single console through USB and/or PS/2 connections
- Self-powered through USB connection
- Connecting cable sets are include
- Audio enabled for multimedia applications
- DVI UXGA resolution of 1600x1200 @ 60Hz
- Supports hot-swapping

## KVM Switches Comparison

Model	Ports	Console Interface	Computer Interface	Platform Support	Max. Local Resolution	Audio
KVM-0411	4	PS/2, D-Sub	PS/2, D-Sub	PC	2048x1536	■
KVM-0412	4	PS/2, D-Sub	PS/2, D-Sub	PC	2048x1536	-
KVM-0421	4	USB, D-Sub	USB, D-Sub	PC, Mac, Sun	2048x1536	■
KVM-0422	4	USB, D-Sub	USB, D-Sub	PC, Mac, Sun	2048x1536	-
KVM-0306	3	PS/2, USB, DVI	USB, DVI	PC, Mac, Sun	1600x1200	■



## Rackmount KVM Switches



**KVM-0410 / KVM-0420**  
**4-Port PS/2 KVM Switch**

- Supports PS/2 PC interface
- Supports USB interface (KVM-0420)
- Features an auto-scan and programmable scan function
- Password protected for each connected PC
- Provides for easy access via hotkey function
- Plug-and-play configuration and easy to use On Screen Display (OSD)
- Supports daisy chain to control more PCs as required
- VGA Resolution: 1920x1440, DDC2B



KVM-0811



KVM-1611

**KVM-0811 / KVM-1611**  
**8/16-Port PS/2 KVM Switch**

- Manage 8 or 16 computers from a single location
- Supports a variety of operating system platforms
- Password protection for connected PCs
- High video quality of up to 1920x1440 pixels
- Features auto-scan mode for PC monitoring and an auto-detect daisy chain function for easy management
- Features an additional built-in daisy chain port for expanding the KVM network



KVM-0831



KVM-1631

**KVM-0831 / KVM-1631**  
**8/16-Port Combo KVM Switch with 1 Expansion Slot**

- Control servers and computers either locally via control port or remotely via optional modules through the module expansion slot
- Combo architecture with PC support for PS/2 and USB interface and one expansion slot
- Flexible auto-scan mode for PC monitoring
- Locate Cat.5 console up to 300m away from the KVM switch
- Supports screen saving and 10 mins auto-logout function
- Built-in daisy chain port for cascading with KVM-0831 or KVM-1631 up to 8 units

## Rackmount KVM Switches Comparison

Model	Ports	Console Interface	Computer Interface	Platform Support	Max. Local Resolution	Audio
KVM-0410	4	PS/2, D-Sub	PS/2, D-Sub	PC	1920X1440	-
KVM-0420	4	PS/2, USB, D-Sub	PS/2, USB, D-Sub	PC, Mac, Sun	1920X1440	-
KVM-0811/KVM-1611	8/16	PS/2, D-Sub	PS/2, D-Sub	PC	1920X1440	-
KVM-0831/KVM-1631	8/16	PS/2, USB, D-Sub	PS/2, USB, D-Sub	PC, Mac, Sun	1920X1440	-

## Rackmount KVM Consoles



**KVM-0115US / KVM-0115DE**  
**15" Rackmount KVM Console with US/DE Keyboard Layout**

- KVM server rack console with 15" LCD monitor
- Bright active matrix TFT display
- Provides OSD function for LCD display
- Panel prospected by tempered glass
- Provides 15 pins high density connector
- 15 language keyboard format and easy glide touchpad
- Durable keyboards (touchpad or trackball)
- Provides detachable keyboard
- Supports PS/2 and USB console interface
- Supports DVI interface



**KVM-0117US / KVM-0117DE**  
**17" Rackmount KVM Console with US/DE Keyboard Layout**

- KVM server rack console with 17" LCD monitor
- Bright active matrix TFT display
- Provides OSD function for LCD display
- Panel prospected by tempered glass
- Provides 15 pins high density connector
- 15 language keyboard format and easy glide touchpad
- Durable keyboards (touchpad or trackball)
- Provides detachable keyboard
- Supports PS/2 and USB console interface
- Supports DVI interface



**KVM-0217US / KVM-0217DE**  
**17" Modularized Rackmount KVM Console with US/DE Keyboard Layout**

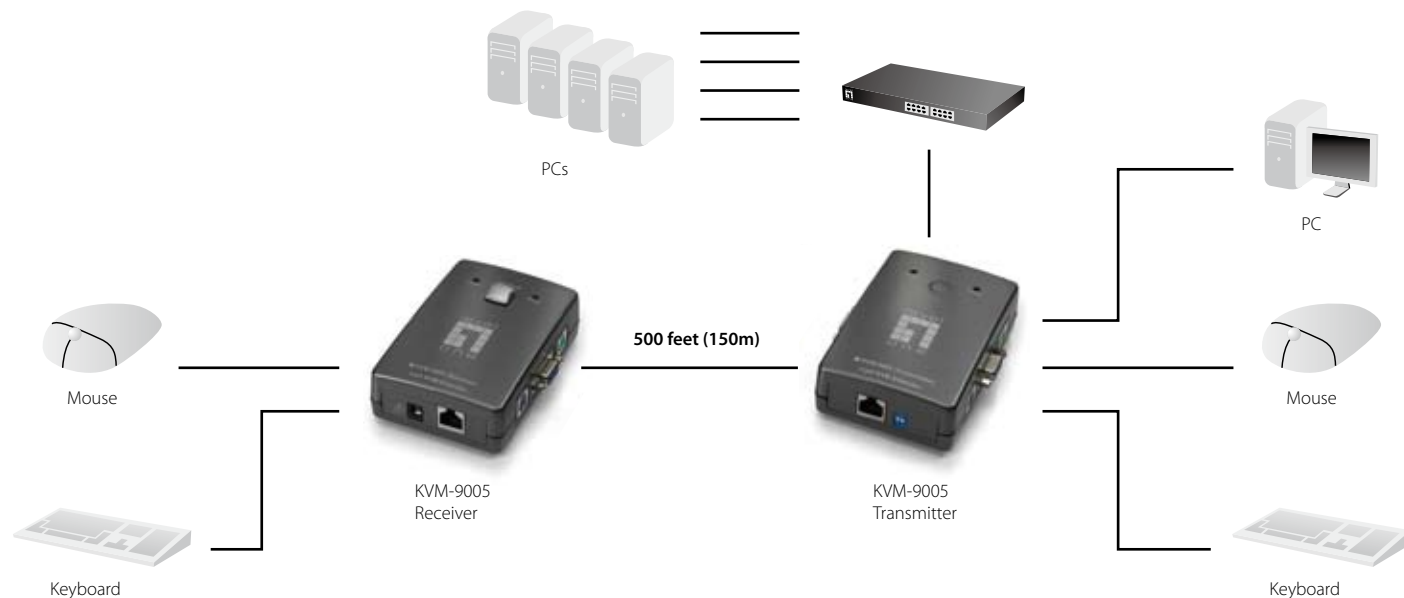
- Daisy chain up to 7 additional KVM switches to control up to 64/128 computers
- Easy for computer access with hotkey mode, OSD invocation keys and supports OSD tree structure
- Auto scan mode enables continuous monitoring of user selected computers
- Two-layer security access with support for 8 unique profile user accounts
- IP KVM management over LAN or Internet possible with connected LevelOne KCM-0831/1631 modules
- Locate Cat.5 remote console up to 300m far away
- Provides detachable keyboard

## Rackmount KVM Consoles Comparison

Model	Ports	Console Interface	Computer Interface	Platform Support	Max. Local Resolution	Audio
KVM-0115US/DE	1	PS/2, USB	PS/2, USB, DVI	PC, Sun	1024x768	-
KVM-0117US/DE	1	PS/2, USB	PS/2, USB, DVI	PC, Sun	1028x1024	-
KVM-0217US/DE	8/16	PS/2, USB, D-Sub	PS/2, USB, D-Sub (Build-in)	PC, Mac, Sun	1280x1024	-

## LevelOne KVM Extenders

LevelOne's IP KVM Extender allows you to locate a PC, SERVER or KVM SWITCH up to 150m away from your controlling keyboard, mouse and VGA monitor using popular and inexpensive Ethernet cabling. With its compact design, our Cat.5 Extender easily fits on a desk or any limited space. No software or interface card is required.



Extending console port or PC port of KVM Switch up to 500 feet away

### KVM Extenders



#### KVM-9000 IP KVM Extender

- Enables KVM switches with IP functionality
- Provides remote KVM access and control KVM via IP, ISDN or analog phone line
- Provides web-based management interface
- 1 USB port for quick file transfer to remote server
- Automatically senses video resolution for best possible screen capture and provides 128-bit SSL encryption
- High performance mouse tracking and synchronization
- Supports DOS, Netware, Unix, Linux, Win3.X, Win 95/98/98SE/2000/ME/XP
- Features high video quality of up to 1280x1024



#### KVM-9005 PS/2 KVM Extender

- Provides for remote console access up to 150m
- Dual user access- at sender and receiver
- Supports Cat.5/5e/6 Ethernet cabling
- LEDs for power and data transfer
- Works with KVM switches and stand-alone PC
- No software requirement and easy to install
- Tuner at receiver to manually adjust video signal



#### KVM-9006 USB KVM Extender

- A single, inexpensive Cat.5/5e/6 UTP cable replaces bulky KVM cables
- Locate Cat.5 console up to 150m away from the KVM switch with superior auto-adjust RGB signals capability
- Collocate computers and servers on one location, ideal for hazardous or unsecured environments
- Switch computers by push button or hotkey commands
- Audible feedback when switching
- LED indicators for computer status or data transmission
- 3-in-1 space saving design
- Works with PS/2 or USB computer
- Easy to install and use with plug-and-play functionality

### KVM Extenders Comparison

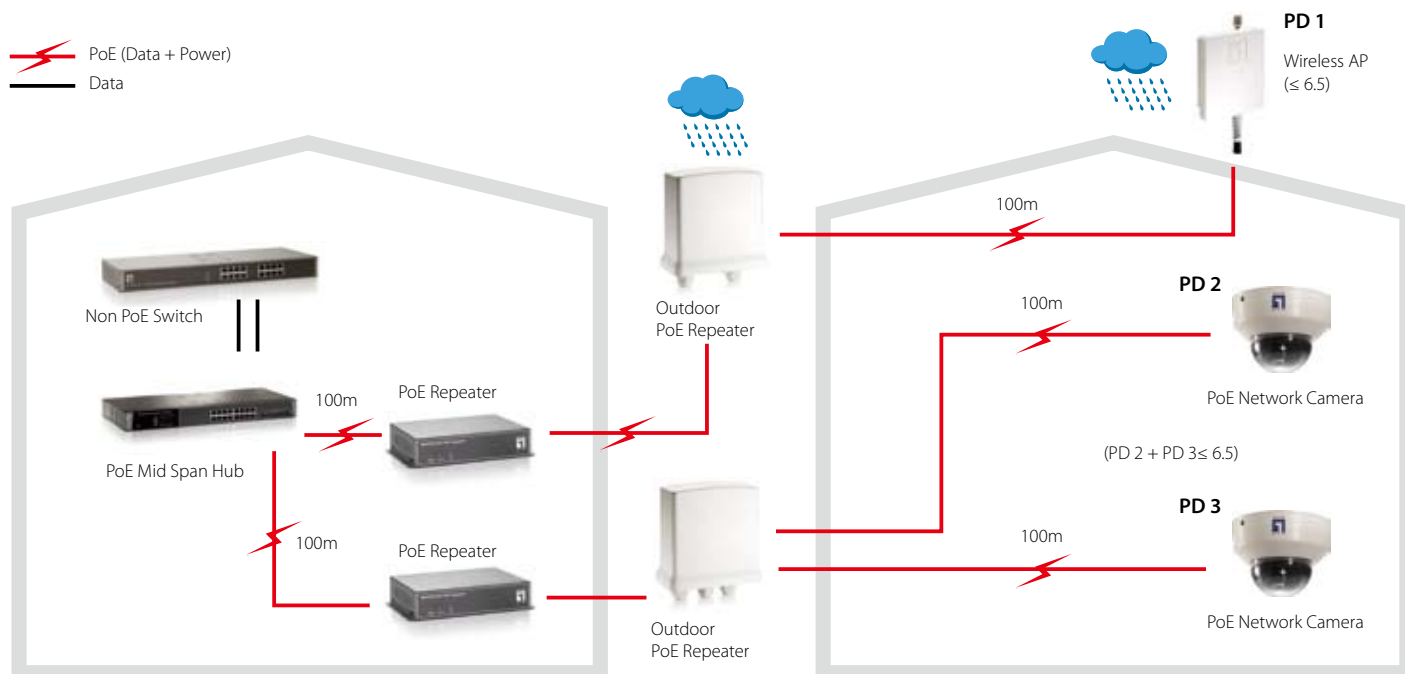
Model	Description	Extension distance	Console Interface	Computer Interface	Resolution
KVM-9000	IP KVM Extender	-	PS/2, D-Sub	PS/2, D-Sub	1280x1024
KVM-9005	Cat.5/6 KVM Extender Kit	150m@1280x1024	PS/2, D-Sub	PS/2, D-Sub	1280x1024
KVM-9006	USB Cat.5 KVM Extender	150m@1280x1024	USB, D-Sub	USB, D-Sub	1280x1024
					1920x1440 (local console)

## Accessories

**Model:** KCM-0831**Description:** 8-Port D-Sub Combo KVM Module**Works with:** KVM-0217**Model:** ACC-1000**Description:** KVM Cat.5 Console Module**Works with:** KVM-0831 / KVM-1631 / KCM-0831 / KCM-1631**Model:** ACC-2006 / ACC-2010**Description:** 6.0m / 10.0m PS/2 KVM Cable PS/2 KVM Cable**Works with:** KVM-0410 / KVM-0420**Model:** ACC-2009**Description:** 90cm Daisy Chain Cable**Works with:** KVM-0811 / KVM-1611**Model:** KCM-1631**Description:** 16-Port D-Sub Combo KVM Module**Works with:** KVM-0217**Model:** ACC-2000**Description:** KVM IP Console Module**Works with:** KVM-0831 / KVM-1631 / KCM-0831 / KCM-1631**Model:** ACC-2003 / ACC-2004 / ACC-2005**Description:** 1.8m / 3.0m / 5.0m USB KVM Cable**Works with:** KVM-0420**Model:** ACC-2109**Description:** 90cm Daisy Chain Cable**Works with:** KVM-0831 / KVM-1631 / KCM-0831 / KCM-1631**Model:** KVM-9007**Description:** KVM Cat.5 Console Receiver**Works with:** KVM-0831 / KVM-1631 / KVM-0217**Model:** ACC-2001 / ACC-2002**Description:** 1.8m / 3.0m PS/2 KVM Cable**Works with:** KVM-0410 / KVM-0420 / KVM-0811 / KVM-1611**Model:** ACC-2101 / ACC-2102 / ACC-2103**Description:** 1.8m / 3.0m / 5.0m PS/2 and USB KVM Cable**Works with:** KVM-0831 / KVM-1631 / KCM-0831 / KCM-1631

# LevelOne PoE PD/PSE/Repeaters

LevelOne Power over Ethernet (PoE) devices supply power to PoE-capable devices like network cameras, access points, and VoIP phones using only Ethernet cables. MidSpan hubs combine data and power into the same cable to provide ultimate flexibility when building a network. Use LevelOne PoE indoor/outdoor repeaters to extend your PoE network devices with an addition of 100m. This is especially useful as it doesn't require devices to be located close to power outlets.



## PoE Hubs



### POH-1250 12 FE PoE Injector Hub

- 12 ports Power over Ethernet Hub
- Remote power feeding up to 100 meters
- Centralized power distribution for PoE Powered Device (PD)
- High safety short circuit protection
- Power protection: OVP/OCP/OTP
- Power auto recovery
- 19" rack mountable size
- Total PoE power budget: 200W



### POH-1260 12 FE High Power PoE Injector Hub

- 12 ports Power over Ethernet Hub
- Remote power feeding up to 100 meters
- Centralized power distribution for PoE Powered Device (PD)
- High safety short circuit protection
- Power protection: OVP/OCP/OTP
- Power auto recovery
- 19" rack mountable size
- Total PoE power budget: 375W



### POH-2450 24-Port PoE Mid Span Hub

- Upgraded the existing Ethernet switches and provide Power over Ethernet capabilities
- Provides 24 PoE ports with Cisco standard compliant
- PoE Powered Device (PD) classification identify
- Current limited for short circuit protection
- Easy remote management via Web interface, Telnet or Serial Console
- Max. PoE output power: 400W

## PoE Hubs Comparison

Model	POH-1250	POH-1260	POH-2450
802.3af	-	-	-
Data In Port	12	12	24
Data + Power Port Out	12	12	24

## PoE Splitter


**POS-4000**  
**3-12V DC High Power PoE Splitter**

- High performance PoE splitter enables non-PoE network device with PoE functionality
- Built-in current limitation, short circuit and overload protection
- Design to work with POI-4000 high-performance power injector
- Cost saving power distribution over existing Cat.5 network infrastructure
- Max. PoE output power: 12VDC 2.5A


**POS-4002**  
**24V AC High Power PoE Splitter**

- High performance PoE splitter enables non-PoE network device with PoE functionality
- Built-in current limitation, short circuit and overload protection
- Design to work with POI-4000 high-performance power injector
- Cost saving power distribution over existing Cat.5 network infrastructure
- Max. PoE output power: AC24V 1.6A


**POS-1002**  
**5-12V DC PoE Splitter**

- IEEE 802.3af compliance
- Supplies power up to 12.9W
- Converts non-PoE devices with Power over Ethernet support
- Delivering power and data to equipment via a single Ethernet cable
- Eliminates the need for a bulky power adapter and power line for your appliance
- Adjustable output DIP switch for 5V, 9V, and 12V adjustable output
- Provides interchangeable tips


**POS-1001**  
**5-12V DC Gigabit PoE Splitter**

- IEEE 802.3af compliance
- Supplies power up to 12.9W
- Network devices at Gigabit speeds all within a compact device
- Automatically detects PoE terminals and supplies inline power
- Safeguards network device with short circuit protection
- Adjustable output DIP switch for 5V, 9V and 12V adjustable output
- Provides interchangeable tips


**POS-3000**  
**5-12V DC Gigabit PoE Plus Splitter**

- IEEE 802.3 af/at compliance
- Supplies power up to 25W
- Network devices at Gigabit speeds all within a compact device
- Automatically detects PoE terminals and supplies inline power
- Safeguards network device with short circuit protection
- Adjustable output DIP switch for 5V, 9V and 12V adjustable output
- Provides interchangeable tips


**POS-4001**  
**3-12V DC High Power Outdoor PoE Splitter**

- 12DC 2.5A High Power PoE Splitter
- Split Power over Ethernet (PoE) to remote devices
- DC Output: 12V DC (default), 9,6,5,3.3V DC (Optional)
- Ethernet 100Mbps wire speed
- Simple to install plug-and-play
- IP66 weatherproof design

## PoE Splitter/Injector Comparison

Model	POS-4000	POS-4002	POS-1002	POS-1001	POS-3000	POS-4001
802.3af/at	-	-	■	■	■	-
Power Output	12V/2.5A	24V/1.6A	5/9/DC 12V	5/9/DC12V	5/9/DC12V	DC12V/2.5A
Power Input	48V DC/0.3A PoE	54V DC/0.9A PoE	48V DC/0.3A PoE	48V DC/0.3A PoE	48V DC/0.6A PoE	48V DC

## PoE Injector


**POI-4000**  
**High Power PoE Injector**

- Sends Power over Ethernet to remote devices
- DC INPUT: 12~20V DC
- Design for high power power PD and long-ranged PD application
- Built-in surge and over current protection
- LED status indicates Power and Connectors activities
- Plug-and-play, no software or configuration needed
- Power Protection: OCP, OVP
- Max. PoE output power: 40W
- Works well with POC-4000, accommodates up to 8 units

NEW


**POI-2002**  
**PoE Injector**

- Minimise the need for a bulky power adapter and power line
- Delivering power and data to equipment via a single Ethernet cable
- Up to 15.4W of PoE power
- High safety with surge protection
- Remote power feeding up to 100 meters
- PnP, Light Weight and compact size
- Unique interlocking feature for easy installation


**POI-2001**  
**Gigabit PoE Injector**

- Up to 15.4W of PoE power
- Compatible with IEEE 802.3af or legacy PoE applications
- Safes on low power devices - receive only the power they need
- Safe and reliable power to WLAN access points
- Automatic detection and protection of Non-standard Ethernet terminals
- Supports 10/100/1000Base-T LAN environments
- Unique interlocking feature for easy installation

## PoE Repeater


**POI-3000**  
**Gigabit PoE Plus Injector**

- IEEE 802.3af/at compliant
- Supports 10/100/1000Base-T LAN environments
- Safe on low power devices, receive only the power they need
- Automatic detection and protection of non-standard Ethernet terminals
- Unique interlocking feature for easy installation
- Max. PoE output power: 30W



POR-0100



POR-0102

**POR-0100 / POR-0102**  
**PoE Repeater**

- Extends Cat.5 cable installations to beyond 100m
- Forwards power over Ethernet (PoE) to remote device
- No power required
- Fully transparent-no restrictions to network traffic
- Simple to install-works instantly
- 2-Port Ethernet Power Sourcing Equipment (PSE) (POR-0102)



POT-0100



POT-0110

**POT-0100 / POT-0110**  
**PoE Repeater over 2-wire (Master/Slave)**

- Two-wire cables are used to connect 100Mbps Fast Ethernet PoE devices
- Maximum distance up to 500m for 24 AWG cable
- Maximum data rate up to 60Mbps full duplex
- Remote PoE capability for PD devices of Wi-Fi AP, IP camera, IP telephones
- Up to 15 watts for remote PoE, depending on PSE power
- Easy installation by indoor & outdoor different models
- Dip switches for 2-wire line rate settings
- Auto MDIX for 10/100 Base-T Ethernet LAN ports
- Low-latency for Video/Voice/Data applications (POT-0100)

## PoE Repeaters Comparison

Model	POI-4000	POI-2002	POI-2001	POI-3000	POR-0100 / POR-0102	POT-0100 / POT-0110
802.3af/at	-	-	■	■	-	-
RJ-45 Input	1	1	1	1	1	1
RJ-45 Output	1	1	1	1	1/2	1
Indoor/Outdoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor



## PoE Repeater


**POR-1100**  
**Outdoor PoE Repeater**

- Extends Cat.5 cable installations to beyond 100 meters
- Forwards Power over Ethernet (PoE) to remote device
- No Power required
- Fully transparent-no restrictions to network traffic
- Supports all network devices
- Compatible with universal IEEE 802.3af PoE Standard
- IP66 weatherproof design


**POR-1102**  
**2-Port Outdoor PoE Repeater**

- Extends Cat.5 cable installations to beyond 100 meters
- Forwards Power over Ethernet (PoE) to remote device
- No Power required
- Fully transparent-no restrictions to network traffic
- Supports all network devices
- Compatible with universal IEEE 802.3af PoE Standard
- IP66 weatherproof design
- 2-Port Ethernet Power Sourcing Equipment


**POT-1110**  
**Outdoor PoE Repeater over 2-wire (Slave)**

- Two-wire cables are used to connect 100Mbps Fast Ethernet PoE devices
- Maximum distance up to 500 meters for 24 AWG cable
- Maximum data rate up to 60Mbps full duplex
- Remote PoE capability for PD devices of Wi-Fi AP, IP camera, IP telephones
- Up to 15W for remote PoE, depending on PSE power
- Easy installation by indoor & outdoor different models
- Dip switches for 2-wire line rate settings
- Auto MDIX for 10/100 Base-T Ethernet LAN ports
- Low-latency for Video/Voice/Data applications

## PoE Rack


**POC-4000**  
**8-Bay High Power PoE Chassis**

- Accommodates up to 8 bays for high power PoE-PSE POI-4000
- Standard 19" chassis mountable for space saving convenient installation
- Plug-and-play features for easy system expansions
- Two DC electric fans for thermal ventilation
- 250V 2A fuse protection


**POC-6000**  
**8-Bay PoE Switch Chassis**

- Supports 8 slots for FSW-0513/FSW-0503, send high power to up to 32 devices (refer to page 26)
- Supports 1000 watts power
- Standard 4U 19-inch chassis central power management unit
- Optimal solution to outdoor P/T/Z and Dome network cameras
- Power adapter is not included



## PoE Measurement

**PPM-1000**  
**PoE Power Mesurer**

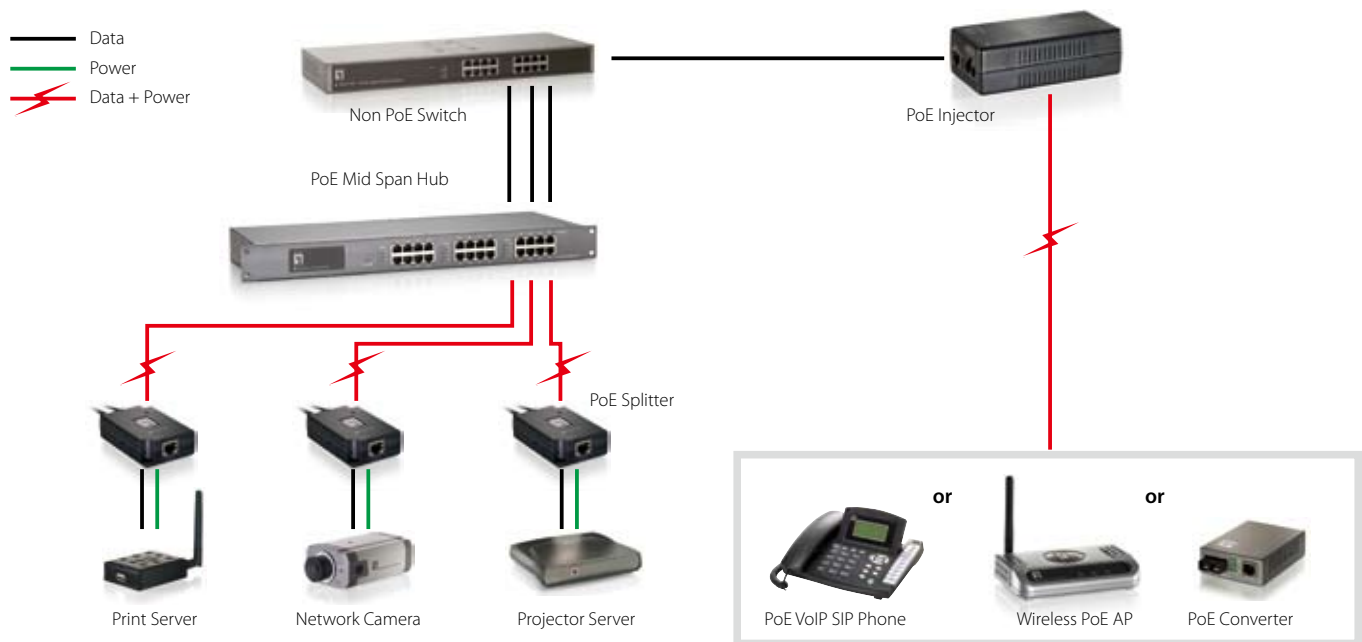
- Ensures your PoE device works correctly
- Measures available power (watt) and voltage in a PoE line
- Portable and compact size
- LED display and indicators to reveal the power status
- Built-in temperature sensor
- Replaceable external battery pack for real portability
- Detachable neck strap
- Build-in temperature sensor and LED indicator to inform user about overheat condition if high power load test is applied

## PoE Repeaters Comparison

Model	POR-1100	POR-1102	POT-1110
802.3af	-	-	-
RJ-45 Input	1	1	1
RJ-45 Output	1	2	1
Indoor/Outdoor	Outdoor (IP66)	Outdoor (IP66)	Outdoor (IP66)

# LevelOne Power over Ethernet (PoE) Solutions

What do you do when you need to build a network in a challenging environment? No electrical outlets nearby? LevelOne has the answer and our PoE solutions give you great flexibility by sending both power and data over the same Cat.5 cable. Now you don't need to worry about placing wireless access points, network cameras, or VoIP phones near the power source, LevelOne is giving you greater creative control when you build your network.



## PoE Switches

**Model:** FSW-0512



**Description:** 5-Port Fast Ethernet PoE PD Switch  
**See Page:** 24

**Model:** FSW-0812



**Description:** 8-Port Fast Ethernet PoE PD Switch  
**See Page:** 24

**Model:** FSW-0809



**Description:** 4 FE + 4 FE PoE Switch  
**See Page:** 25

**Model:** FSW-0822



**Description:** 4 FE + 4 FE PoE Switch  
**See Page:** 25

**Model:** FSW-0503



**Description:** 4 FE PoE + 1 FE Switch  
**See Page:** 26

**Model:** FSW-0513



**Description:** 4-Port High Power PoE Switch  
**See Page:** 26

**Model:** IFE-0500



**Description:** 4 FE PoE + 1 FE Industrial Switch  
**See Page:** 26

**Model:** IFE-0501



**Description:** 4 FE PoE + 1 FE Multi-Mode SC Industrial Switch  
**See Page:** 26

**Model:** IFE-0502



**Description:** 4 FE PoE + 1 FE Single-mode SC Industrial Switch  
**See Page:** 26

**Model:** GEP-0520



**Description:** 4 GE PoE + 1 GE Switch  
**See Page:** 27

**Model:** FSW-1671



**Description:** 8 FE + 8 FE PoE Web Smart Switch  
**See Page:** 28

**Model:** GSW-2693



**Description:** 24-Port PoE Fast Ethernet TP + 2-Port Gigabit Ethernet Combo L2 SNMP Switch  
**See Page:** 30

## PoE Converters

**Model:** FVT-0103TXFC



**Description:** 10/100BASE-TX to 100BASE-FX Multi-Mode Fiber Converter with PoE (SC)  
**See Page:** 32

**Model:** FVT-0104TXFC



**Description:** 10/100BASE-TX to 100BASE-FX Single-Mode Fiber Converter with PoE (SC)  
**See Page:** 32

**Model:** FVT-0203TXFC



**Description:** 10/100BASE-TX to 100BASE-FX Multi-Mode Fiber Converter with PoE Injector (SC)  
**See Page:** 32

**Model:** FVT-0204TXFC



**Description:** 510/100BASE-TX to 100BASE-FX Single-Mode Fiber Converter with PoE Injector (SC)  
**See Page:** 32

## PoE AP Management Gateway

**Model:** WHG-1000



**Description:** 300Mbps Wireless PoE Hotspot Gateway  
**See Page:** 39

## PoE Access Points

**Model:** WAP-3100



**Description:** 54Mbps Wireless PoE Access Point  
**See Page:** 44

**Model:** WAP-3101



**Description:** 108Mbps Wireless Ceiling PoE Access Point  
**See Page:** 44

**Model:** WAP-6102



**Description:** 300Mbps Wireless Ceiling PoE Access Point  
**See Page:** 44

## PoE Access Points/Bridges

**Model:** WAP-6012



**Description:** 300Mbps Wireless Gigabit PoE Access Point  
**See Page:** 45

**Model:** WAP-1001



**Description:** 108Mbps Wireless Outdoor PoE Access Point  
**See Page:** 45

**Model:** WAB-3001



**Description:** 54Mbps Outdoor PoE Access Point  
**See Page:** 45

**Model:** WAB-3002



**Description:** 54Mbps Outdoor PoE Access Point  
**See Page:** 45

## PoE Access Points/Bridges

**Model:** WAB-7000



**Description:** 54Mbps Dual-Band Outdoor PoE Access Point  
**See Page:** 45

**Model:** WAB-7400



**Description:** 54Mbps Dual-radio Outdoor PoE Mesh Access Point  
**See Page:** 45

**Model:** WAB-3003



**Description:** 108Mbps Outdoor PoE Access Point  
**See Page:** 45

## PoE Network Cameras

**Model:** FCS-3021



**Description:** PoE Dome Network Camera  
**See Page:** 51

**Model:** FCS-3031



**Description:** PoE PIR Dome Network Camera  
**See Page:** 51

**Model:** FCS-3051



**Description:** Day/Night PoE PIR Dome Network Camera  
**See Page:** 51

**Model:** FCS-3061



**Description:** Day/Night Megapixel PoE Dome Network Camera  
**See Page:** 51

## PoE Network Cameras

**Model:** FCS-3071



**Description:** 2-Megapixel PoE Dome Network Camera  
**See Page:** 52

**Model:** FCS-1121



**Description:** Megapixel PoE Network Camera  
**See Page:** 52

**Model:** FCS-1131



**Description:** 2-Megapixel PoE Network Camera  
**See Page:** 52

**Model:** FCS-1141



**Description:** 1.3-Megapixel PoE Network Camera  
**See Page:** 52

## PoE Network Cameras

**Model:** FCS-1151



**Description:** 2-Megapixel PoE Network Camera  
**See Page:** 53

**Model:** FCS-1091



**Description:** PoE Network Camera  
**See Page:** 53

**Model:** FCS-1101



**Description:** PoE Network Camera  
**See Page:** 53

**Model:** FCS-5011

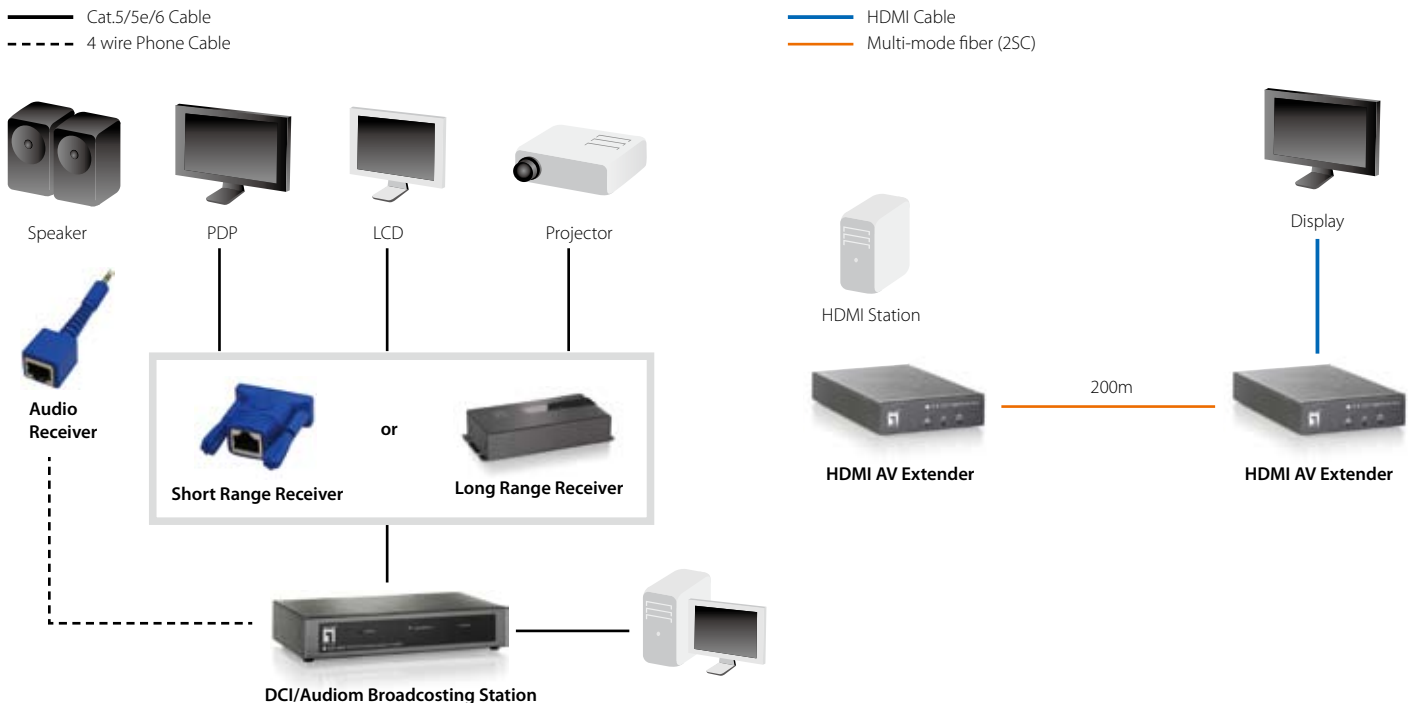


**Description:** Day/Night PoE Network Camera  
**See Page:** 54

**PoE PD/PSE****Model:** POH-1250**Description:** 12 FE PoE Hub  
**See Page:** 65**Model:** POH-1260**Description:** 12 FE High Power PoE Hub  
**See Page:** 65**Model:** POH-2450**Description:** 24-Port PoE Mid Span Hub  
**See Page:** 65**Model:** POS-4000**Description:** 3-12V DC High Power PoE Splitter  
**See Page:** 66**PoE PD/PSE****Model:** POS-4002**Description:** 24V AC High Power PoE Splitter  
**See Page:** 66**Model:** POS-1001**Description:** 5-12V DC Gigabit PoE Splitter  
**See Page:** 66**Model:** POS-3000**Description:** 5-12V DC Gigabit PoE Plus Splitter  
**See Page:** 66**Model:** POS-4001**Description:** 3-12V DC High Power Outdoor PoE Splitter  
**See Page:** 66**PoE PD/PSE****Model:** POI-4000**Description:** High Power PoE Injector  
**See Page:** 67**Model:** POI-2001**Description:** Gigabit PoE Injector  
**See Page:** 67**Model:** POI-3000**Description:** Gigabit PoE Plus Injector  
**See Page:** 67**Model:** POR-0100**Description:** PoE Repeater  
**See Page:** 67**PoE PD/PSE****Model:** POR-0102**Description:** 2-Port Indoor PoE Repeater  
**See Page:** 67**Model:** POT-0100**Description:** PoE Repeater over 2-wire (Master)  
**See Page:** 67**Model:** POT-0110**Description:** PoE Repeater Slave over 2-wire (Slave)  
**See Page:** 67**Model:** POR-1100**Description:** Outdoor PoE Repeater  
**See Page:** 68**PoE PD/PSE****Model:** POR-1102**Description:** 2-Port Outdoor PoE Repeater  
**See Page:** 68**Model:** POT-1110**Description:** Outdoor PoE Repeater over 2-wire (Slave)  
**See Page:** 68**PoE Rack****Model:** POC-4000**Description:** 8-Bay High Power PoE Chassis  
**See Page:** 68**Model:** POC-6000**Description:** 8-Bay PoE Switch Chassis  
**See Page:** 68**PoE Measurement****Model:** PPM-1000**Description:** PoE Power Measurement  
**See Page:** 68**PoE VoIP Phone****Model:** VOI-7100**Description:** SIP VoIP PoE Phone  
**See Page:** 70

## LevelOne Audio/Video Extenders

LevelOne has several audio/video extenders that allow users to transmit high-quality signals (VGA, DVI, HDMI) over long distance. This solution is ideal for broadcasting real-time data to a group of displays in various locations. Recomend for public transportation, stadiums, schools, restaurants, etc.



### Audio and Video Extenders (VGA, 150m)



**AVE-9201**  
1-Port Cat.5 Audio/Video Broadcaster

- Real-time transmission of multimedia content via Cat.5/5e/6 patch cabling to display devices
- Provides for a transmitting distance up to 150m
- Supports VGA resolution up to 1280x1024@85Hz
- No software installation required and easily to install
- Compatible with DOS, MS Windows, Linux and Netware
- Connections: HDDB15 for VGA, 3.5 stereo jack for audio, RJ-45 for Cat.5/5e/6 cable
- \* Cable included



**AVE-9205**  
5-Port Cat.5 Audio/Video Broadcaster

- Real-time transmission of multimedia content via Cat.5/5e/6 patch cabling to display devices
- Provides for a transmitting distance up to 150m
- Supports VGA resolution up to 1280x1024@85Hz
- No software installation required and easily to install
- Compatible with DOS, MS Windows, Linux and Netware
- Connections: HDDB15 for VGA, 3.5 stereo jack for audio, RJ-45 for Cat.5/5e/6 cable
- \* Cable included



**AVE-9200**  
Cat.5 Audio/Video Receiver

- Real-time transmission of multimedia content via Cat.5/5e/6 patch cabling to display devices
- Provides for a transmitting distance up to 150m
- Supports VGA resolution up to 1280x1024@85Hz
- Plug-and-play installation
- Compatible with DOS, MS Windows, Linux and Netware
- Connections: HDDB15 for VGA, 3.5 stereo jack for audio, RJ-45 for Cat.5/5e/6 cable

### Audio and Video Extenders Comparison

Model	Description	Interface	Aspect ratio	Resolution	Distance
<b>AVE-9201</b>	1-Port Audio/Video Broadcaster	D-Sub/Audio	SXGA (4:3)	1280x1024	150m
<b>AVE-9205</b>	5-Port Audio/Video Broadcaster	D-Sub/Audio	SXGA (4:3)	1280x1024	150m
<b>AVE-9200</b>	Audio/Video Receiver	D-Sub/Audio	SXGA (4:3)	1280x1024	150m

## Audio and Video Extenders (VGA, 300m)

**AVE-9300 / AVE-9301**  
**1-Port Cat.5 VGA Receiver/Transmitter**

- Transmit audio and video signals up to 300 meters
- Transmit audio and video signals up to 900 meters through stacking (with AVE-9304A)
- Support various video types (VGA, RCA, YCBCR) by different cable kits
- Easy installation and no software required
- Supports 2048x1536 VGA resolution over 300m

**AVE-9304 / AVE-9308 / AVE-9316**  
**4/8/16-Port Cat.5 VGA Transmitter**

- Provides 4, 8 or 16 ports long range Cat.5 A/V transmitter
- Broadcast audio/video signals over Ethernet cable
- Supports 2048x1536 VGA resolution over 300m
- Flexible multi-location audio/video broadcasting
- Flexible choices of cable kit for different video applications
- Units can be stacked into 3 layer stackable units (with AVE-9304A) for extending broadcast signal to 900m away
- Repeater and receiver units feature Video Gain and Focus control

**AVE-9304A**  
**4-Port Cat.5 VGA Repeater**

- Broadcast audio/video signals over Ethernet cable
- Supports 2048x1536 VGA resolution over 300m
- Flexible multi-location audio/video broadcasting
- Flexible cable kit choices for different video applications
- Units can be stacked into 3 layer stackable units (with AVE-9304A) for extending broadcast signal to 900m away
- Repeater and Receiver units feature Video Gain and Focus control

## Audio and Video Extenders (DVI)

**ADE-8011**  
**Audio Transmitter/Receiver**

- Stereo audio transmitter/receiver
- Provides 1 RJ-11 and 1 audio jack interface
- Transmits stereo audio via 4-wire phone cable
- Extends audio signal up to 100m

**ADE-8201**  
**Single-Port DVI Transmitter**

- Provides 1-port DVI signal transmitter
- DVI signal transmission distance up to 70m at 1024x768 resolution when working with ADE-8002
- DVI signal transmission distance up to 15m at 1024x768 resolution when working with ADE-8001

**ADE-8001**  
**Short Range DVI-D Receiver**

- Receives DVI signal from up to 25m at 1024 x 768 resolution when working with ADE-8202/8204/8208
- Receives DVI signal from up to 15m at 1024 x 768 resolution when working with ADE-8021
- Digital signal transmission for clear image quality

## Audio and Video Extenders Comparison

Model	Description	Interface	Aspect ratio	Resolution	Distance
<b>AVE-9300/AVE-9301</b>	1-Port LR Cat.5 A/V Receiver/Transmitter	VGA/Audio	QXGA (4:3)	2048x1536	300m
<b>AVE-9304/9308/9316</b>	4/8/16-Port LR Cat.5 A/V Transmitter	VGA/Audio	QXGA (4:3)	2048x1536	300m
<b>AVE-9304A</b>	4+1 Ports LR Cat.5 A/V Repeater	VGA/Audio	QXGA (4:3)	2048x1536	300m
<b>ADE-8011</b>	Audio Extender	Audio	-	-	100m
<b>ADE-8201</b>	1-Port Video Transmitter	DVI-D	XGA (4:3)	1024x768	15m/70m@1024x768 with ADE-8001/8002
<b>ADE-8001</b>	DVI Receiver	DVI-D	XGA (4:3)	1024x768	15m@1024x768



## Audio and Video Extenders (DVI)


**ADE-8002**  
**Long Range DVI-D Receiver**

- Detachable base for quick installation and wall mounting
- Extends distance from DVI source to monitor up to 70 meters with 1024x768 resolution and up to 80 meters with 800x600 resolution
- Digital signal transmission for clear image quality
- Power consumption: DC 9V/ 0.67A


**ADE-8202**  
**2-Port DVI Broadcaster with Audio**

- Transmits DVI signal via Cat.5, Cat.5e, Cat.6 cable
- Transmits stereo audio via 4-wire phone cable
- Supports high DVI resolution up to 1920x1200
- DVI signal transmission distance up to 70 meters at 1024x768 resolution when used with ADE-8002
- Transmits DVI signal up to 15 meters at 1024x768 resolution when used with ADE-8001
- Easy installation and no software required


**ADE-8204 / ADE-8208**  
**4/8-Port DVI Broadcaster with Audio**

- Provides 4 or 8 ports DVI broadcaster with audio
- Transmits DVI signal via Cat.5/5e/6 cable
- Transmits stereo audio via 4-wire phone cable
- Supports high DVI resolution up to 1920x1200
- DVI signal transmission distance up to 70m at 1024x768 resolution when used with ADE-8002
- Transmits DVI signal up to 15m at 1024x768 resolution when used with ADE-8001
- Easy installation and no software required

## Audio and Video Extenders (HDMI)



HVE-9000



HVE-9001

**HVE-9000 / HVE-9001**  
**HDSpider™ Long Range Cat.5 HDMI**  
**Receiver/Sender**

- Able to deliver top-quality video as well as audio over a single cable, works with Cat.5/5e/6 Ethernet Cable
- Great for display in movie theaters, concert halls, public transportation, malls, shops, airports, schools, etc
- Minimize the cable skew by adjustable 8-level equalization knob with fully compliant with HDMI 1.3
- Supports resolution at 1080i/1080p@60m/40m between HVE-9000 and HVE-9001
- Provides 1 RJ-45 Input and 1 HDMI output
- Compatible with HDCP


**HVE-9900**  
**HDSpider™ Short Range Cat.5 HDMI**  
**Receiver**

- Supports resolution at 1080i/1080p@15m/25m
- Works with Cat.5/5e/6 Ethernet cable, offers short-range transmission up to 25m without any data loss
- Directly connect to the remote display, saving the cost of an additional HDMI cable
- Provides 1 RJ-45 Input and 1 HDMI output
- Connect to a local HDMI display or the HDMI output of HVE-9001/9002/9003 for HDMI over Cat.5 transmission
- Compatible with HDCP


**HVE-9002 / HVE-9003**  
**HDSpider™ Cat.5 HDMI Sender**  
**(Cascadable- HVE-9003)**

- Compatible with HDMI 1.2 and HDCP
- Includes local HDMI port to allow for an additional monitor to be placed next to the device
- Works with Cat.5/5e/6 Ethernet cable
- Supports full 1080p resolution and has an audio out port
- Transmission distance at up to 60 meters
- Supports 7.1 multichannel stereo surround sound: an easy way to extend the high-quality video of HDMI
- Also works as a receiver, able to select an infinite amount of HVE-9003s to be used in your A/V network (HVE-9003)

## Audio and Video Extenders Comparison

Model	Description	Interface	Aspect ratio	Resolution	Distance
ADE-8002	LR DVI Receiver	DVI-D	XGA (4:3)	1024x768	70m@1024x768
ADE-8202	2-Port Video/Audio Broadcaster	DVI-D/Audio	XGA (4:3)	1024x768	15m/70m@1024x768 with ADE-8001/8002
ADE-8204 / ADE-8208	4/8-Port Video/Audio Broadcaster	DVI-D/Audio	XGA (4:3)	1024x768	15m/70m@1024x768 with ADE-8001/8002
HVE-9000	HDSpider™ HDMI Cat.5 Receiver (Long)	HDMI	HDTV	1080i/p	60/40m
HVE-9001	HDSpider™ HDMI Cat.5 Sender	HDMI	HDTV	1080i/p	60/40m
HVE-9900	HDSpider™ HDMI Cat.5 Receiver (Short)	HDMI	HDTV	1080i/p	25/15m

## Audio and Video Extenders (HDMI)


**HVE-9004**  
**HDSpider™ 4-Port Cat.5 HDMI Sender**

- Works with Cat.5, Cat.5e, Cat.6 Ethernet cable
- Transmission distance of up to 60m for 1080i or 40m for 1080p
- Minimize the cable skew using 8-level adjustable equalization knob
- Provides higher speed - 6.75Gbps
- HDMI deep color enables display with more natural and vivid colors
- HDMI 1.3c compliant
- Compatible with HDCP


**HVE-9008**  
**HDSpider™ 8-Port Cat.5 HDMI Sender**

- Works with Cat.5, Cat.5e, Cat.6 ethernet cable
- Transmission distance of up to 60m for 1080i or 40m for 1080p
- Minimize the cable skew using 8-level adjustable equalization knob
- Provides higher speed - 6.75Gbps
- HDMI deep color enables display with more natural and vivid colors
- HDMI 1.3c compliant
- Compatible with HDCP

## Audio and Video Extenders (via Fiber)


**HVE-0201**  
**HDMI Extender over Fiber**

- Provides connections via an SC duplex connector to a 2-channel fiber optic cable to transmit the HDMI signal
- Provides extending of the high definition multimedia interface signal over fiber optic cable up to 200m
- Fully HDCP/CEC without the needs of copper wiring
- Optical fiber use rules out any RF Interference
- HDMI type A connection

## Audio and Video Extenders Comparison

Model	Description	Interface	Aspect ratio	Resolution	Distance
<b>HVE-9004</b>	HDSpider™ 4-Port Cat.5 HDMI Sender	HDMI	HDTV	1080i	60/40m
<b>HVE-9008</b>	HDSpider™ 8-Port Cat.5 HDMI Sender	HDMI	HDTV	1080i/p	60/40m
<b>HVE-0201</b>	HDMI Fiber Optic Audio/Video Extender	HDMI	WUXGA (16:10)	1920x1200	200m
<b>DVE-0500</b>	DVI Fiber Optic Video Extender	DVI-D	WUXGA (16:10)	1920x1200	500m

**Accessories:** LevelOne provides a comprehensive range of cables for the AVE series of audio/video extenders for guaranteed compatibility and reliability.

**Model:** RCA-9007



**Description:** 0.7m RCA to VGA cable (video source to transmitter)  
**Works with:** AVE-9301 / AVE-9304 / AVE-9308 / AVE-9316

**Model:** RCA-9018



**Description:** 1.8m RCA to RCA cable (receiver to video display)  
**Works with:** AVE-9300 / AVE-9304A

**Model:** YCC-9007



**Description:** 0.7m YCBCR to VGA cable (video source to transmitter, supports HD up to 720p)  
**Works with:** AVE-9301 / AVE-9304 / AVE-9308 / AVE-9316

**Model:** YCC-9018



**Description:** 1.8m YCBCR to YCBCR cable (receiver to video display, supports HD up to 720p)  
**Works with:** AVE-9300 / AVE-9304A

**Model:** VGA-0011



**Description:** 1m Audio and Video cable  
 \*USB cable is only compatible with AVE-9301  
**Works with:** AVE-9301 / AVE-9304 / AVE-9308 / AVE-9316

**Model:** AVC-0010



**Description:** 1m VGA + Audio cable (receiver to video display, VGA male to VGA female)  
**Works with:** AVE-9300 / AVE-9304A

**Model:** AVC-0011



**Description:** 1m VGA + Audio cable (receiver to video display, VGA male to VGA male)  
**Works with:** AVE-9300 / AVE-9304A

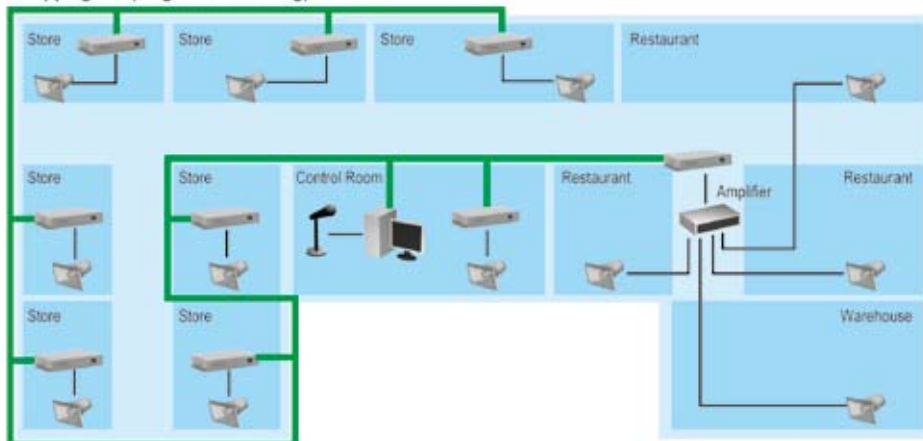
**DVE-0500**  
**DVI Extender via 4 Fiber Channel, LC 500m**

- Transmission of DVI signals via optical fiber up to 500m
- Able to connect via a LC duplex connector to a 4 channel fiber optic cable to transmit the DVI signal
- Provides long distance digital image transmission via fiber optic cable
- Provides high-resolution image quality
- Signal is protected from any electrical interference
- Fiber optic provides for a low attenuation and greater distance solution

## IP Audio Broadcasting

IP Audio Broadcasting is significant for users to build and deploy an audio installation that is powerful, easy to use and covers a large surface area. This deployment is ideal for large office, business centers, hotels, airports, shopping malls, public transportation, universities, theaters, etc. Use anywhere you need to send audio signals to many different locations. It also comes with powerful software that allows you to manage the playlists in each zone independently.

Shopping Mall(single level drawing)



Illustrations



**IAT-1000**  
**LevelOne Audiocast Terminal**

- Simple to use audio terminal, ideal for background music and paging system
- Schedule different playlists in different zones
- Search, configure and manage all audiocast terminals from one single location
- Stream high-quality stereo audio signals
- 100% compatible with MP3 and WAV sound format
- Using NetUSB (USB Over IP), work around the DRM issues of streaming Internet music sources
- Control both local and remote locations via TCP/IP (RJ-45)

### LevelOne IP Audiocast Manager

Managing your audio network has never been easier. Using LevelOne's IP Audiocast management software together with the IP Audiocast Terminals provides a robust audio solution. The IP Audiocast Manager streams high-quality audio signals to each IAT-1000 terminal on the network. As a result, every IAT-1000 terminal can play MP3, WAV, M3U playlist, or live announcements that are streamed over the Ethernet network. Each zone can also be scheduled to receive an audio stream separated from the others. This provides users with the ultimate flexibility in streaming audio to different areas among large buildings.



	Manager Lite	IAT-1920	IAT-1900
Main Features			
Max of Terminal View, Monitor and Configure	7	20	Unlimited
Smart Search	Yes	Yes	Yes
Broadcast tech.	Yes	Yes	Yes
Streaming tech.	Yes	Yes	Yes
Schedule Control	N/A	Yes	Yes
Live Announcement	Yes	Yes	Yes
Multiple Zone View, Monitor and Configure	N/A	Yes	Yes
Music's Format Support MP3 / WAV	Yes	Yes	Yes
Music's Control Play/Stop/Next/Forward	Yes	Yes	Yes
Playlist (M3U) Create/Edit/Save	Yes	Yes	Yes
USB Key Protection	N/A	Yes	Yes
OS	Windows 2000/XP/2003/Vista		
Terminal Configuration			
Active/Inactive Terminals	Yes	Yes	Yes
DHCP/Static IP	Yes	Yes	Yes
Firmware upgrade	Yes	Yes	Yes

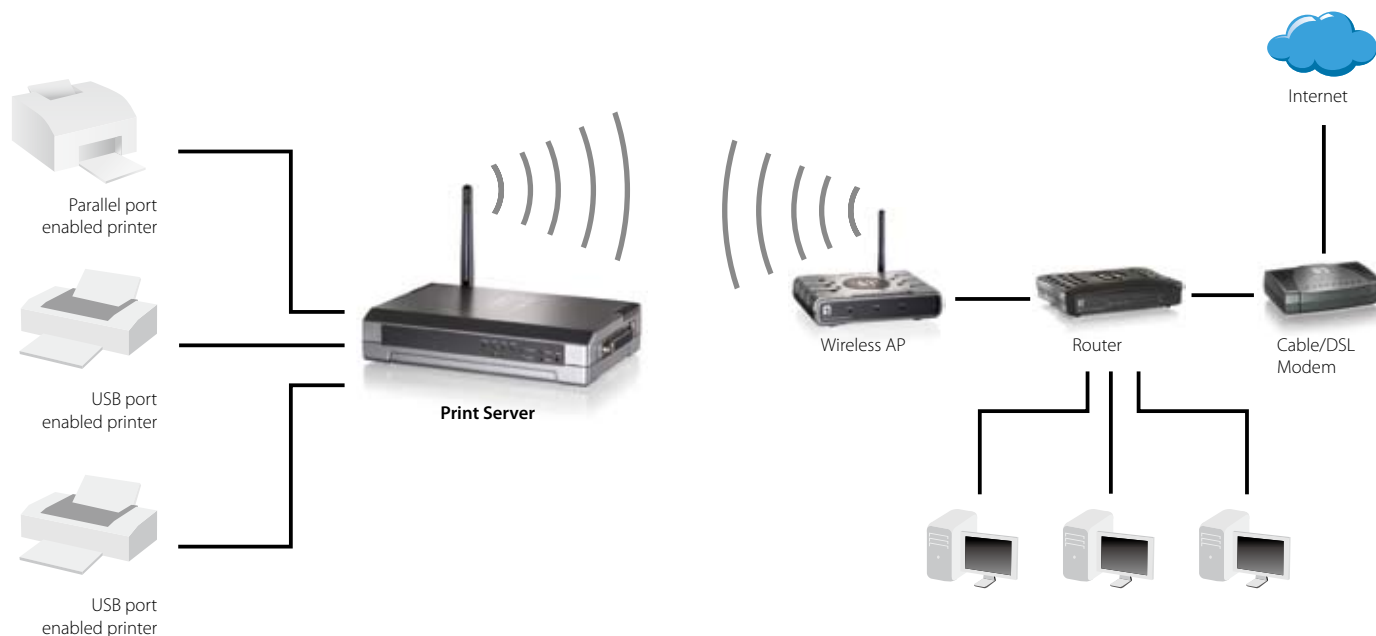
\* The IP Audiocast Manager Lite is the free version that comes with the IAT-1000

\* Please note that the Ethernet environment has to support broadcast streaming

\* The IAT-1900/1920 software has to run with USB Key license

## LevelOne Print Servers

LevelOne offers both wired and wireless print servers. These devices make it easy for several users to connect to a single printer on a wired or wireless local network.



### Wired Print Servers



**FPS-1031**  
Print Server with 1 Parallel Port

- IEEE 802.3, 802.3u Fast Ethernet network connectivity
- Network protocol supported includes TCP/IP, IPX NetBEUI, AppleTalk, LPR and SMB over TCP/IP
- Includes Internet Printing Protocol (IPP) support
- Supports multiple operating systems
- Supports multiple network printing protocols
- Easy set-up wizard included with web-based user interface
- Parallel print server for network print sharing



**FPS-1032**  
Print Server with 1 USB Port

- IEEE 802.3, 802.3u Fast Ethernet network connectivity
- Network protocol supported includes TCP/IP, IPX NetBEUI, AppleTalk, LPR and SMB over TCP/IP
- Includes Internet Printing Protocol (IPP) support
- Supports multiple operating systems
- Supports multiple network printing protocols
- Easy set-up wizard included with Web based user interface
- High-speed USB 2.0 print server for network print sharing



**FPS-1033**  
Print Server with 2 USB and 1 Parallel Ports

- Multi-port print server for network print sharing
- IEEE 802.3, 802.3u Fast Ethernet network connectivity
- Provides web-based user interface, Windows-based setup program and telnet management
- Supports multiple operating systems
- Supports multiple network printing protocols
- High-speed USB 2.0 interface
- Easy set-up wizard included

### Wired Print Servers Comparison

Model	FPS-1031	FPS-1032	FPS-1033	FUS-3101	FPS-3003
MFP Server	-	-	-	■	■
Parallel Port	1	-	1	-	-
USB Port	-	1	2	1	2
TCP/IP	■	■	■	■	■
NetBEUI	■	■	■	-	-
AppleTalk	■	■	■	-	-

## Wired Print Servers

NEW



**FUS-3101**  
Network USB Server

- Shares a USB MFP or GDI printer among network users
- Supports network scan and PC Fax for Multi-function printers (MFP)
- Shares scanner/fax function of MFP
- Compatible with most GDI and MFP printers
- Supports DHCP client
- Supports easy setup through Web Browser
- Supports general USB devices: sotrages, Hub, card reader, printer and MFP
- Provides an utility tool for Windows 2000/XP/Vista/7



**FPS-3003**  
2-Port USB MFP Server

- Shares 2 USB devices on the network and supports print function for most USB printers
- Supports print and scan function for HP multi-function printers
- Provides SMB and FTP file server
- Supports connectivity for standard USB storage devices such as card readers, USB HDDs and flash drives
- Supports SNMP v1/v2c/v3 management protocol
- Supports DHCP client network connection configuration
- Easy to use web-based user interface
- Supports Windows 2000/XP/Vista/7

## Wireless Print Servers



**WPS-1133**  
Wireless Print Server  
(2 USB and 1 Parallel Ports)

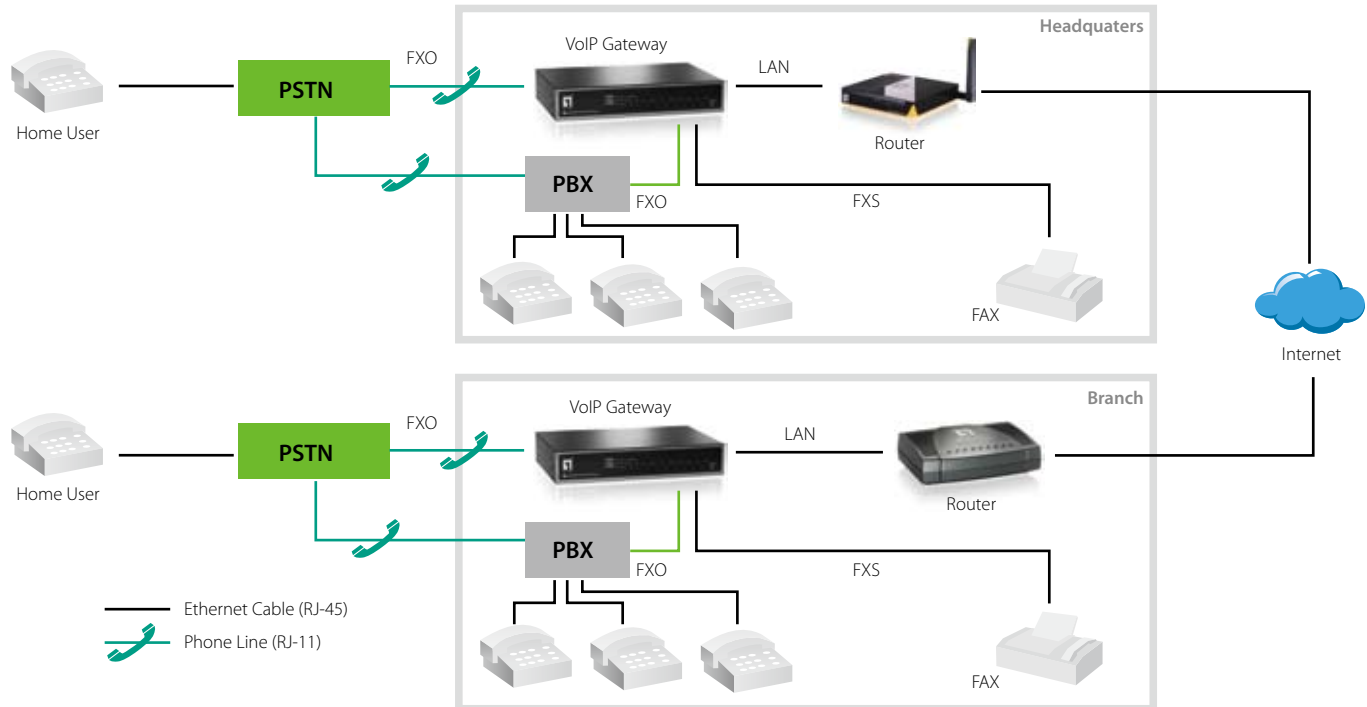
- Provides wireless multi-port print server for sharing network printers and high-speed USB 2.0 interface
- Easy set-up wizard included
- Web-based user interface and telnet management
- Supports multiple operating systems and network printing protocols
- Incorporates WEP and WPA-PSK wireless security
- Network Print Protocol supported includes TCP/IP, IPX, NetBEUI, AppleTalk, LPR, SMB over TCP/IP and IPP
- Supports Windows ME/2000/2003/XP, Mac OS 8.1 or higher, UNIX/Linux and Netware

## Wireless Print Servers Comparison

Model	MFP Server	802.11b/g	Parallel Port	USB Port	WEP	TCP/IP
WPS-1133	-	■	1	2	■	■

# LevelOne Voice over IP (VoIP) Solutions

VoIP Gateways make phone calls over the Internet simple, easy, and affordable. LevelOne VoIP Gateways are ideal for home, SOHO, and SMB users that are looking forward integrate PSTN (Public Switched Telephone Network) and VoIP telephone features onto the same IP network.



## VoIP Gateways



### VOI-8001 / VOI-8002 8-Port FXS/FXO H.323/SIP VoIP Gateway

- Provides VoIP solution of 8-port FXS for VOI-8001 or 8-port FXO for VOI-8002
- Connect up to 8 telephones, fax machines or connect to a PBX for a VoIP telephone network
- Register up to 4 SIP (v2) proxy or gatekeepers simultaneously
- A built-in firewall, NAT server, PPPoE and DHCP
- Supports UPnP, DMZ and DynDNS
- Provides Q.93 "Fast Start" for H.323 operation
- QoS for high priority VoIP network traffic
- Carrier tone generation and detection, caller ID, DTMF relay, echo cancellation and comfort noise generation



### VOI-8003 4-Port FXO + 4-Port FXS VoIP Gateway

- 4 FXO and 4 FXS ports for a complete VoIP solution
- Register up to 4 SIP (v2) proxy or gatekeepers
- A built-in firewall, NAT server, PPPoE and DHCP
- Supports UPnP, DMZ and DynDNS
- Provides Q.93 "Fast Start" for H.323 operation
- QoS for high priority VoIP network traffic
- Carrier tone generation and detection, caller ID, DTMF relay, echo cancellation and comfort noise generation



## VoIP PBX

### VOI-9300 SIP VoIP PBX with 4 FXO Ports

- Advanced telephony management and feature rich IP PBX solution
- Supports 100 extensions, 100 voicemail accounts and 30 concurrent calls
- Features a web-calling feature for online interaction and provides call detail record (CDR)
- Provides a VPN server for secured connectivity
- Supports ITU-T G.711a/u, GSM/MS-GSM, G.729A/B, VAD and CNG speech codec
- Features powerful interactive voice response system and voice message recording function
- Provides built-in SIP proxy register server IP phone

## VoIP Solutions Comparison

Model	10/100Mbps WAN / LAN Port	FXS / FXO Port	VoIP Protocol	Voice Codec
VOI-8001	1 WAN/1 LAN	8 FXS	SIP v1/ v2; H.323	G .711/G .723.1/G .726/G .729A/B
VOI-8002	1 WAN/3 LAN	8 FXO	SIP v1/ v2; H.323	G .711/G .723.1/G .726/G .729A/B
VOI-8003	1 WAN/3 LAN	4 FXS/4 FXO	SIP v1/ v2; H.323	G .711/G .723.1/G .726/G .729A/B
VOI-9300	1 WAN/1 LAN	1 FXS/4 FXO	SIP v1/v2	G .711/G .723.1/G .726/G .729A/B



## VoIP Phone


**VOI-7000**  
**SIP Phone**

- Traditional phone for digital use
- Cost effective telephony for long and short distance calls for home, business and enterprise users
- User friendly and packed with VoIP and SIP features
- Provides 2MB flash memory and 8 MB for SDRAM
- Registers up to 3 different telephone numbers
- Enhanced security features of HTTP1.1 authentication for web setup and MD5 for SIP authentication
- Plug-and-play enabled user easy to set-up with keypad


**VOI-7100**  
**SIP Phone with PoE Capability**

- Traditional phone for digital use
- User friendly and packed with PoE, VoIP and SIP
- Provides 2MB flash memory and 8 MB for SDRAM
- Registers up to 3 different telephone numbers
- Enhanced security features to protect local area networks and provides plug-and-play enabled user to easy set-up with keypad


**VOI-7010**  
**IP Phone**

- SIP compliant with 3 SIP account registration support
- Provides cost effective VoIP phone for home and business use
- Configures traditional office phone features
- IP PBX support for full office phone network setup
- Provides VPN PPTP client support for establishing secured VoIP connections
- Provides plug-and-play, easily configured through a web browser, console/ telnet and the keypad
- Supports light-weight single headset with microphone

## Accessories

**Model:** DHM-1000

**VOI-7011**  
**IP Phone with FXO port**

- Provides IP phone with FXO port for connecting to IP network and PSTN network
- SIP compliant with 3 SIP account registration support
- Provides cost effective VoIP IP phone for home and business use
- Configures traditional office phone features
- IP PBX support for full office phone network setup
- Provides VPN support and supports plug-and-play enabled to easy set-up with keypad
- Supports light-weight single headset with microphone


**Description:** Light-weight Single Headset with Microphone  
**Works with:** VOI-7010/VOI-7011

## VoIP Solutions Comparison

Model	10/100 Mbps WAN / LAN Port	FXS / FXO Port	VoIP Protocol	Voice Codec
VOI-7000	1 WAN/1 LAN	-	SIP v1/v2	G .711/G .723.1/G .726/G .729A/B
VOI-7100	1 WAN/1 LAN	-	SIP v1/v2	G .711/G .723.1/G .726/G .729A/B
VOI-7010	1 WAN/1 LAN	-	SIP v1/v2	G .711/G .723.1/G .726/G .729A/B
VOI-7011	1 WAN/1 LAN	1 FXO	SIP v1/v2	G .711/G .723.1/G .726/G .729A/B

**HOME****LevelOne Ethernet Switches****Unmanaged Fast Ethernet Switches** **Page 04**

FSW-0508TX	5-Port Fast Ethernet Switch
FSW-0808TX	8-Port Fast Ethernet Switch
FSW-0511	5-Port Fast Ethernet Switch
FSW-0811	8-Port Fast Ethernet Switch

**Unmanaged Gigabit Ethernet Switches** **Page 04**

GSW-0506	5-Port Gigabit Switch
GSW-0806	8-Port Gigabit Switch
GSW-0507	5-Port Gigabit Switch
GSW-0807	8-Port Gigabit Switch

**LevelOne Broadband/ADSL2 Routers****Wired Routers** **Page 05**

FBR-1418TX	Broadband Router
FBR-1430	VPN Broadband Router

**Wireless Routers** **Page 05-06**

WBR-6002	150Mbps N Wireless Router
WBR-6003	150Mbps N Wireless Router
WBR-6005	150Mbps Wireless Router
WBR-6020	300Mbps Wireless Router
WBR-6011	300Mbps Wireless Router
WGR-6012	300Mbps Wireless Gigabit Router

**Wireless 3G Routers** **Page 06**

WBR-6800	150Mbps Wireless 3G Router
WBR-6801	150Mbps Wireless Portable 3G Router

**HomeGuard Router** **Page 06**

WBR-6022	300Mbps Wireless HomeGuard22 Router
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**Wired Modem Routers** **Page 07**

FBR-1161A/B	ADSL2+ Modem Router with 1 USB Port
FBR-1461A/B	ADSL2+ Modem Router with QoS

**Wireless Modem Routers** **Page 07**

WBR-6601	150Mbps Wireless ADSL2+ Modem Router
WBR-3601	54Mbps Wireless ADSL2+ Modem Router
WBR-3470A/B	54Mbps Wireless ADSL2+ VoIP Router (Annex A/B)
WBR-6600A/B	300Mbps Wireless ADSL2+ Modem Router (Annex A/B)

**LevelOne Network Adapters****Wired PCI Cards** **Page 08**

FNC-0107TX	Fast Ethernet PCI Card
FNC-0109TX	Fast Ethernet PCI Card
FPC-0106TX	10/100Mbps 32-Bit PC Cardbus Adapter

**Wired USB Adapters** **Page 08-09**

USB-0301	USB Fast Ethernet Adapter
USB-0401	USB Gigabit Ethernet Adapter
USB-0501	USB Hub and Fast Ethernet Combo Adapter

**Wireless PCI Cards** **Page 09**

WNC-0301	54Mbps Wireless PCI Card
WNC-0601	300Mbps Wireless PCI Card
WNC-0610	300Mbps Wireless PCI Card
WNC-0600	300Mbps Wireless PCI Card
WPC-0600	300Mbps Wireless CardBus Adapter

**Wireless USB Adapters** **Page 10**

WUA-0603	150Mbps Wireless USB Adapter
WUA-0614	150Mbps Wireless USB Adapter
WUA-0624	150Mbps Wireless USB Adapter
WUA-0605	300Mbps Wireless USB Adapter
WUA-0616	300Mbps Wireless USB Adapter

**LevelOne Antennas****2.4GHz Antennas** **Page 11**

OAN-0500	5dBi Omni-directional Indoor Antenna
OAN-1070	7dBi Omni-directional Indoor Antenna

**Accessories** **Page 11****LevelOne Wireless Solutions****LevelOne Wireless Solutions** **Page 12-13****LevelOne Network Cameras****SOHO Network Cameras** **Page 14-15**

FCS-0030	Megapixel PIR Lighting Network Camera
WCS-0030	Wireless Megapixel PIR Lighting Network Camera
FCS-0040	1.3-Megapixel Network Camera
WCS-0040	Wireless 1.3-Megapixel Network Camera
FCS-0010	Network Camera
WCS-0010	Wireless Network Camera
FCS-1030	Network Camera
WCS-2030	Wireless Network Camera
FCS-0020	P/T Network Camera
WCS-0020	Wireless P/T Network Camera
FCS-1060	P/T Network Camera
WCS-2060	Wireless P/T Network Camera
FCS-1010	P/T Network Camera
WCS-2010	Wireless P/T Network Camera

**LevelOne Network Attached Storage (NAS)****Network Attached Storages** **Page 16-17**

WAP-0008	54Mbps Wireless Access Point Storage
FNS-1020	1-Bay Simple Network Storage
GNS-2000	2-Bay Gigabit Network Storage

**LevelOne HomePlug Powerline Adapters****HomePlug Powerline Adapters** **Page 18-19**

PLI-2040	200Mbps Powerline Adapter
PLI-2040 x2	200Mbps Powerline Adapter Starter Kit
PLI-3410	200Mbps Wireless Powerline Adapter
PLI-3110	200Mbps PoE Powerline Adapter
PLI-3210	200Mbps Powerline Adapter with 4 FE Ports
PLI-3310	200Mbps Powerline Adapter with 6-Socket Power Strip and 3 FE Ports

**LevelOne Docking Station****Docking Station** **Page 19**

UDS-1000	USB 2.0 Docking Station
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**LevelOne KVM Switches/Consoles/Extenders****Cable KVM Switches** **Page 20**

KVM-0213	2-Port PS/2 KVM Switch
KVM-0223	2-Port USB KVM Switch
KVM-0260	2-Port USB DVI KVM Switch with Audio

**Desktop KVM Switches** **Page 21**

KVM-0211	2-Port PS/2 KVM Switch with Audio
KVM-0212	2-Port PS/2 KVM Switch
KVM-0221	2-Port USB KVM Switch with Audio
KVM-0222	2-Port USB KVM Switch

**LevelOne VoIP Solutions****VoIP Routers** **Page 22**

WBR-3470A/B	54Mbps Wireless ADSL2+ VoIP Router (Annex A/B)
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**LevelOne Bluetooth Communication****Bluetooth Communication** **Page 22**

MDU-0025USB	Bluetooth 2.0 Class 1 USB Adapter
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**Business****LevelOne Ethernet Switches****Unmanaged Fast Ethernet Switches** **Page 24-26**

FSW-2215	5-Port Fast Ethernet Switch
FSW-2218	8-Port Fast Ethernet Switch

FEU-0510	5-Port Fast Ethernet Switch
FEU-0810	8-Port Fast Ethernet Switch
FSW-0512	5-Port Fast Ethernet PoE PD Switch
FSW-0812	8-Port Fast Ethernet PoE PD Switch
FSW-2106	5 FE + 1 FE SC Fiber Switch
FEU-1610	16-Port Fast Ethernet Switch
FEU-2410	24-Port Fast Ethernet Switch
FSW-1602TX	16-Port Fast Ethernet Switch
FSW-1621	16-Port Fast Ethernet Switch (Internal Power)
FSW-2421	24-Port Fast Ethernet Switch
FSW-1650	16-Port Fast Ethernet Switch
FSW-2450	24-Port Fast Ethernet Switch
FSW-0809	4 FE PoE + 4 FE Switch
FSW-0822	4 FE PoE + 4 FE Switch (Internal Power)
FSW-0503	4 FE PoE + 1 FE Switch
FSW-0513	4-Port Fast Ethernet High Power PoE Switch
IFE-0500	4 FE PoE + 1 FE Industrial Switch
IFE-0501	4 FE PoE + 1 FE Multi-Mode SC Industrial Switch (2km)
IFE-0502	4 FE PoE + 1 FE Single-Mode SC Industrial Switch (30km)

#### Unmanaged Fast/Gigabit Ethernet Switches Page 26-28

GEP-0520	4 GE PoE + 1 GE Switch
GSW-0508	4 GE + 1 GE SFP Switch
GSW-0509	5-Port Gigabit Switch
GSW-0809	8-Port Gigabit Switch
GEU-0520	5-Port Gigabit Switch
GEU-0820	8-Port Gigabit Switch
GSW-1603	16-Port Gigabit Ethernet Switch
GSW-1621	16 GE + 1 GE Combo SFP Switch
GSW-2420	24-Port Gigabit Switch
GSW-2456	24 GE + 4 GE Combo SFP Switch
GSW-2453	3-Slot Gigabit Modular Switch
GSW-1657	16-Port Gigabit Switch
GSW-2457	24-Port Gigabit Switch
GSW-5150	48 FE + 2 GE + 1 GE SFP Switch

#### Web Smart Fast Ethernet Switches Page 28

FSW-1671	8 FE PoE + 8 FE Web Smart Switch
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#### Web Smart Fast/Gigabit Ethernet Switches Page 28-29

GSW-0841	8 GE + 1 GE Combo SFP Web Smart Switch
GSW-1641	16 GE + 1 GE Combo SFP Web Smart Switch
GSW-2440	24-Port Gigabit Web Smart Switch
GSW-2473	24 FE + 2 GE Combo SFP Web Smart Switch
GSW-1676	16 GE + 4 GE Combo SFP Web Smart Switch
GSW-2476	24 GE + 4 GE Combo SFP Web Smart Switch
GSW-4876	48 GE + 4 GE Combo SFP Web Smart Switch
GSW-5270	48 FE + 4 GE + 2 GE Combo SFP Web Smart Switch

#### Layer 2 Managed Fast/Gigabit Ethernet Switches Page 29-31

GSW-0890	8 GE + 2 GE Combo SFP L2 Managed Switch
GSW-1290	4 GE Combo SFP + 2 GE Expandable Slots L2 Managed Switch
GSW-2693	24 FE PoE + 2 GE Combo SFP L2 Managed Stacking Switch
GSW-2690	24 FE + 2 GE Combo SFP L2 Managed Stacking Switch
FGP-2472	24 FE PoE + 2 GE Combo SFP L2 Managed Switch
FGL-2870	24 FE + 4 GE Combo SFP L2 Managed Switch
GEL-2870	24 GE + 4 GE Combo SFP L2 Managed Switch
GSW-4896	48 GE + 4 GE Combo SFP L2 Managed Switch
GSW-2493	4-Slot Modular Combo L2 Managed Switch

#### Layer 3 Managed Gigabit Ethernet Switches Page 31

GTL-2690	20 GE + 4 GE Combo SFP + 2 10GE XFP Module Slot L3 Managed Stackable Switch
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#### Accessories Page 31

#### LevelOne Media Converters

##### Ethernet Media Converters Page 32-33

FVT-0103TXFC	10/100BASE-TX to 100BASE-FX Multi-Mode Fiber Converter with PoE (SC)
FVT-0104TXFC	10/100BASE-TX to 100BASE-FX Single-Mode Fiber Converter with PoE (SC)
FVT-0203TXFC	10/100BASE-TX to 100BASE-FX Multi-Mode Fiber Converter with PoE Injector (SC)

FVT-0204TXFC	10/100BASE-TX to 100BASE-FX Single-Mode Fiber Converter with PoE Injector (SC)
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FVT-6001	10/100BASE-TX to 100BASE-FX Multi-Mode Fiber Converter with TS-1000 Support (SC)
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FVT-6301	10/100BASE-TX to 100BASE-FX Single-Mode Fiber Converter with TS-1000 Support (SC)
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FVT-4001	10/100BASE-TX to 100BASE-FX Multi-Mode Fiber Converter (SC)
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FVT-4301	10/100BASE-TX to 100BASE-FX Single-Mode Fiber Converter (SC)
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FVT-4002	10/100BASE-TX to 100BASE-FX Multi-Mode Fiber Converter (ST)
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GVT-4000	10/100/1000BASE-TX to 1000BASE-FX Converter (SFP)
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GVT-4001	10/100/1000BASE-T to 1000BASE-SX Multi-mode Fiber Converter (SC)
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#### Converter Chassis Page 33

FVT-4000	10-Slot Media Converter Chassis with Redundant Power Supply
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FVT-5000	16-Slot Managed Converter Chassis with Redundant Power Supply
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#### VDSL2 Media Converters Page 33-34

VDS-0200	Ethernet over VDSL2 Converter (Annex A)
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VDS-0201	Ethernet over VDSL2 Converter (Annex B)
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VDS-0202	Ethernet over VDSL2 Converter (BNC)
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VDS-0120	Ethernet over VDSL2 Converter (PSE)
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VDS-0130	Ethernet over VDSL2 Converter (PD)
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VDS-0110	Ethernet over VDSL2 Converter (Sender)
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VDS-0111	Ethernet over VDSL2 Converter (Receiver)
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#### Accessories Page 34

#### LevelOne Fiber Optical Transceivers

##### 155M SFP Duplex LC Fiber Page 35

SFP-1101	155M Multi-Mode SFP Transceiver (2km)
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SFP-1311	155M Single-Mode SFP Transceiver (20km)
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SFP-1411	155M Single-Mode SFP Transceiver (40km)
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##### 1.25G SFP Duplex LC Fiber Page 35-36

GVT-0300	1.25G Multi-Mode SFP Transceiver (550m)
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GVT-0301	1.25G Single-Mode SFP Transceiver (10km)
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GVT-0302	1.25G Single-Mode SFP Transceiver (80km)
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SFP-3001	1.25G Multi-Mode SFP Transceiver (550m)
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SFP-3211	1.25G Single-Mode SFP Transceiver (10km)
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SFP-3611	1.25G Single-Mode SFP Transceiver (80km)
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SFP-3111	1.25G Multi-Mode SFP Transceiver (2km)
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SFP-3711	1.25G Single-Mode SFP Transceiver (120km)
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##### 155M BIDI Simplex LC Fiber Page 36

SFP-7321	155M Single-Mode BIDI SFP Transceiver (20km, TX/RX over 1310/1550nm)
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SFP-7331	155M Single-Mode BIDI SFP Transceiver (20km, TX/RX over 1550/1310nm)
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SFP-7421	155M Single-Mode BIDI SFP Transceiver (40km, TX/RX over 1310/1550nm)
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SFP-7431	155M Single-Mode BIDI SFP Transceiver (40km, TX/RX over 1550/1310nm)
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##### 1.25G BIDI Simplex LC Fiber Page 37

SFP-9221	1.25G Single-Mode BIDI SFP Transceiver (10km, TX/RX over 1310/1550nm)
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SFP-9231	1.25G Single-Mode BIDI SFP Transceiver (10km, TX/RX over 1550/1310nm)
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SFP-9321	1.25G Single-Mode BIDI SFP Transceiver (20km, TX/RX over 1310/1550nm)
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SFP-9331	1.25G Single-Mode BIDI SFP Transceiver (20km, TX/RX over 1550/1310nm)
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SFP-9421	1.25G Single-Mode BIDI SFP Transceiver (40km, TX/RX over 1310/1550nm)
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SFP-9431	1.25G Single-Mode BIDI SFP Transceiver (40km, TX/RX over 1550/1310nm)
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##### 1.25G Copper Transceiver Page 37

SFP-3841	1.25G Copper Transceiver (100m)
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##### 10G XFP Duplex LC Fiber Page 37

XFP-5901	10G Multi-Mode XFP Transceiver (300m)
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XFP-5211	10G Single-Mode XFP Transceiver (10km)
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#### LevelOne IP Power Switch

##### IP Power Switch Page 38

IPS-0008	8-Port IP Power Switch
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#### LevelOne Broadband Routers and Gateways

##### Wired Router Page 38

FBR-4000	Multi-WAN Load Balance VPN Router
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##### AP Management Gateways Page 39

WHG-1000	300Mbps Wireless PoE Hotspot Gateway
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AMG-2001	Access and AP Management Gateway
AMG-2100	Gigabit Access and AP Management Gateway
AMG-2101	Gigabit Access and AP Management Gateway Plus
AMG-2102	Gigabit Access and AP Management Gateway Pro

## Accessories Page 39

### LevelOne Network Adapters and Boosters

#### Wired PCI Cards Page 41

FNC-0103FX	100BASE-FX Multi-Mode Fiber Optic PCI Card (ST)
FNC-0104FX	100BASE-FX Multi-Mode Fiber Optic PCI Card (SC)
GNC-0105T	32-bit Gigabit Ethernet PCI Card
FNC-0600TXM	5-Port L2 SNMP Switch Card
FNC-0115	100BASE-FX Multi-Mode Fiber Optic PCI Express Card (SC)
GNC-0111	100BASE-SX Fiber Optic PCI Express Card (SC)

#### Wireless Indoor Boosters Page 42

WBO-0500	Indoor 11b/g Wi-Fi Signal Booster (500mW)
WBO-0100	Indoor 11b/g Wi-Fi Signal Booster (1W)
WBO-2500	Indoor 11n Wi-Fi Signal Booster (500mW)

#### Wireless Outdoor Boosters Page 42

WBO-5100	Outdoor 11a Wi-Fi Signal Booster (1W)
WBO-1100	Outdoor 11b/g Wi-Fi Signal Booster (1W)
WBO-1200	Outdoor 11b/g Wi-Fi Signal Booster (2W)
WBO-1400	Outdoor 11b/g Wi-Fi Signal Booster (4W)

### LevelOne Access Points/Antennas

#### Wireless Access Points (Indoor) Page 43-45

WAP-3000	54Mbps Wireless Access Point
WAP-3100	54Mbps Wireless PoE Access Point
WAP-3101	108Mbps Wireless Ceiling PoE Access Point
WAP-6002	150Mbps Wireless Access Point
WAP-6010	300Mbps Wireless Access Point
WAP-6011	300Mbps Wireless Access Point
WAP-6102	300Mbps Wireless Ceiling PoE Access Point
WAP-6012	300Mbps Wireless Gigabit PoE Access Point

#### Wireless Access Points (Outdoor) Page 45

WAP-1001	108Mbps Wireless Outdoor PoE Access Point
WAB-3001	54Mbps Outdoor PoE Access Point
WAB-3002	54Mbps Outdoor PoE Access Point
WAB-7000	54Mbps Dual-Band Outdoor PoE Access Point
WAB-7400	54Mbps Dual-radio Outdoor PoE Mesh Access Point
WAB-3003	108Mbps Wireless Outdoor PoE Access Point

#### 2.4GHz Antennas Page 46-47

OAN-2151	15dBi Omni-Directional Outdoor Antenna
OAN-2090	9dBi Omni-Directional Indoor/Outdoor Antenna Kit
WAN-7100	10.5dBi Directional Dual-Polarization Patch Antenna Kit
WAN-1112	12dBi Directional Patch Indoor/Outdoor Antenna Kit
WAN-2185	8.5dBi Pico Cell Directional Antenna
WAN-2140	14dBi Panel Directional Antenna
WAN-2181	18dBi Panel Directional Antenna
WAN-2218	18dBi Yagi Directional Antenna

#### 5GHz Antennas Page 47

OAN-4101	10dBi Omni-directional Antenna
WAN-4232	23dBi Directional Outdoor Panel Antenna

#### Dual Band (2.4/5 GHz) Antennas Page 47

WAN-1160	6/8dBi Dual-Band Directional Indoor Antenna
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#### Accessories Page 47

#### Antenna Cables Page 48

ANC-1430	3m RPSMA Plug to RPSMA Jack Antenna Cable
ANC-1440	5m RPSMA Plug to RPSMA Jack Antenna Cable
ANC-1470	10m RPSMA Plug to RPSMA Jack Antenna Cable
ANC-2210	1m 200 Series N Plug to N Plug Antenna Cable
ANC-2310	1m 200 Series N Plug to RPSMA Plug Antenna Cable
ANC-2350	1.5m 200 Series N Plug to RPSMA Plug Antenna Cable
ANC-2330	3m 200 Series N Plug to RPSMA Plug Antenna Cable
ANC-4230	3m 400 Series N Plug to N Plug Antenna Cable

ANC-4130	3m 400 Series N Plug to N Jack Antenna Cable
ANC-4160	6m 400 Series N Plug to N Jack Antenna Cable
ANA-3100	3GHz Outdoor Lighting Arrestor
ANA-6100	6GHz Outdoor Lighting Arrestor

### LevelOne Wireless Solutions

#### LevelOne Wireless Solutions Page 49-50

### LevelOne Network Cameras

#### Business Network Cameras Page 51-54

FCS-3021	PoE Dome Network Camera
FCS-3031	PoE PIR Dome Network Camera
FCS-3051	Day/Night PoE PIR Dome Network Camera
FCS-3061	Day/Night Megapixel PoE Dome Network Camera
FCS-3071	2-Megapixel PoE Dome Outdoor Network Camera
FCS-3081	Day/Night 2-Megapixel PoE Dome Network Camera
FCS-4400	P/T/Z Speed Dome Network Camera
FCS-1121	Megapixel PoE Network Camera
FCS-1131	2-Megapixel PoE Network Camera
FCS-1141	1.3-Megapixel PoE Network Camera
FCS-1151	2-Megapixel PoE Network Camera
FCS-1091	PoE Network Camera
WCS-1090	Wireless Network Camera
FCS-1070	Day/Night Network Camera
WCS-2070	Wireless Day/Night Network Camera
FCS-1101	PoE Network Camera
FCS-1040	P/T/Z Network Camera
WCS-2040	Wireless P/T/Z Network Camera
FCS-5030	Day/Night Network Camera
FCS-5011	Day/Night PoE Network Camera
FCS-5041	Day/Night Megapixel PoE Outdoor Network Camera
FCS-5051	Day/Night 2-Megapixel PoE Outdoor Network Camera
FCS-4010	Speed Dome Pro Outdoor Network Camera (18x Optical Zoom)
FCS-4020	Speed Dome Pro Outdoor Network Camera (35x Optical Zoom)

#### Accessories Page 55

### LevelOne Video Servers/Captured Cards

#### Video Server Page 56

FCS-7111	1-Port H.264 PoE Video Server
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#### Captured Cards Page 56

FCS-8005	4-CH Analog Camera Capture Card
FCS-8006	16-CH Analog Camera Capture Card

### LevelOne Network Video Recorders

#### Network Video Recorders Page 57-58

NVR-0204	4-CH Network Video Recorder
NVR-0208	8-CH Network Video Recorder
NVR-0216	16-CH Network Video Recorder

### LevelOne IP Surveillance Software

#### IP Surveillance Software Page 59-60

FCS-9064	IP CamSecure
FCS-94xx	IP CamSecure Pro Mega Series

### LevelOne KVM Switches/Consoles/Extenders

#### Desktop KVM Switches Page 61

KVM-0411	4-Port PS/2 KVM Switch with Audio
KVM-0412	4-Port PS/2 KVM Switch
KVM-0421	4-Port USB KVM Switch with Audio
KVM-0422	4-Port USB KVM Switch
KVM-0306	3-Port DVI KVM Switch with Audio

#### Rackmount KVM Switches Page 62

KVM-0410	4-Port PS/2 KVM Switch
KVM-0420	4-Port PS/2 KVM Switch
KVM-0811	8-Port PS/2 KVM Switch
KVM-1611	16-Port PS/2 KVM Switch

KVM-0831	8-Port Combo KVM Switch with 1 Expansion Slot
KVM-1631	16-Port Combo KVM Switch with 1 Expansion Slot

#### Rackmount KVM Consoles Page 62

KVM-0115US/DE	15" Rackmount KVM Console with US/DE Keyboard Layout
KVM-0117US/DE	17" Rackmount KVM Console with US/DE Keyboard Layout
KVM-0217US/DE	17" Modularized Rackmount KVM Console with US/DE Keyboard Layout

#### KVM Extenders Page 63

KVM-9000	IP KVM Extender
KVM-9005	PS/2 KVM Extender
KVM-9006	USB KVM Extender

#### Accessories Page 64

### LevelOne PoE PD/PSE/Repeaters

#### PoE Hubs Page 65

POH-1250	12 FE PoE Hub
POH-1260	12 FE High Power PoE Hub
POH-2450	24-Port PoE Mid Span Hub

#### PoE Splitters Page 66

POS-4000	3-12V DC High Power PoE Splitter
POS-4002	24V AC High Power PoE Splitter
POS-1002	5-12V DC PoE Splitter
POS-1001	5-12V DC Gigabit PoE Splitter
POS-3000	5-12V DC Gigabit PoE Plus Splitter
POS-4001	3-12V DC High Power Outdoor PoE Splitter

#### PoE Injectors Page 67

POI-4000	High Power PoE Injector
POI-2002	PoE Injector
POI-2001	Gigabit PoE Injector
POI-3000	Gigabit PoE Plus Injector

#### PoE Repeaters Page 67-68

POR-0100	PoE Repeater
POR-0102	2-Port PoE Repeater
POT-0100	PoE Repeater over 2-wire (Master)
POT-0110	PoE Repeater over 2-wire (Slave)
POR-1100	Outdoor PoE Repeater
POR-1102	2-Port Outdoor PoE Repeater
POT-1110	Outdoor PoE Repeater over 2-wire (Slave)

#### PoE Racks Page 68

POC-4000	8-Bay High Power PoE Chassis
POC-6000	8-Bay PoE Switch Chassis

#### PoE Measurement Page 68

PPM-1000	PoE Power Measurement
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### LevelOne Power over Ethernet (PoE) Solutions

#### LevelOne Power over Ethernet (PoE) Solutions Page 69-71

### LevelOne Audio/Video Extenders

#### Audio and Video Extenders (VGA, 150m) Page 72

AVE-9201	1-Port Cat.5 Audio/Video Broadcaster
AVE-9205	5-Port Cat.5 Audio/Video Broadcaster
AVE-9200	Cat.5 Audio/Video Receiver

#### Audio and Video Extenders (VGA, 300m) Page 73

AVE-9300	1-port Cat.5 VGA Receiver
AVE-9301	1-port Cat.5 VGA Transmitter
AVE-9304	4-Port Cat.5 VGA Transmitter
AVE-9308	8-port Cat.5 VGA Transmitter
AVE-9316	16-port Cat.5 VGA Transmitter
AVE-9304A	4-Port Cat.5 VGA Repeater

#### Audio and Video Extenders (DVI) Page 73-74

ADE-8011	Audio Transmitter/Receiver
ADE-8201	Single-Port DVI Transmitter
ADE-8001	Short Range DVI-D Receiver
ADE-8002	Long Range DVI-D Receiver
ADE-8202	2-Port DVI Broadcaster with Audio
ADE-8204	4-Port DVI Broadcaster with Audio

ADE-8208	8-Port DVI Broadcaster with Audio
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#### Audio and Video Extenders (HDMI) Page 74-75

HVE-9000	HDSpider™ Long Range Cat.5 HDMI Receiver
HVE-9001	HDSpider™ Cat.5 HDMI Sender
HVE-9900	HDSpider™ Short Range Cat.5 HDMI Receiver
HVE-9002	HDSpider™ Cat.5 HDMI Sender with Local HDMI Output
HVE-9003	HDSpider™ Cat.5 Cascadable HDMI Sender
HVE-9004	HDSpider 4-Port Cat.5 HDMI Sender
HVE-9008	HDSpider™ 8-Port Cat.5 HDMI Sender

#### Audio and Video Extenders (via Fiber) Page 75

HVE-0201	HDMI Extender over Fiber
DVE-0500	DVI Extender via 4 Fiber Channel, LC 500m

#### Accessories Page 75

### LevelOne IP Audio Broadcasting

#### IP Audio Broadcasting Page 76

IAT-1000	LevelOne IP Audiocast Terminal
IAT-1900	IP Audiocast Manager-unlimited License
IAT-1920	IP Audiocast Manager-20 License

### LevelOne Print Servers

#### Wired Print Servers Page 77-78

FPS-1031	Print Server with 1 Parallel Port
FPS-1032	Print Server with 1 USB Port
FPS-1033	Print Server with 2 USB and 1 Parallel Ports
FUS-3101	Network USB Server
FPS-3003	2-Port USB MFP Server

#### Wireless Print Servers Page 78

WPS-1133	Wireless Print Server (2 USB and 1 Parallel Ports)
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### LevelOne VoIP Solutions

#### VoIP Gateways Page 79

VOI-8001	8-Port FXS H.323/SIP VoIP Gateway
VOI-8002	8-Port FXO H.323/SIP VoIP Gateway
VOI-8003	4-Port FXO + 4-Port FXS VoIP Gateway

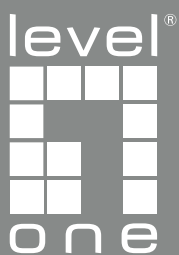
#### VoIP PBX Page 79

VOI-9300	SIP VoIP PBX with 4 FXO Ports
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#### VoIP Phones Page 80

VOI-7000	SIP Phone
VOI-7100	SIP Phone with PoE Capability
VOI-7010	IP Phone
VOI-7011	IP Phone with FXO port

#### Accessories Page 80



**Digital Data Communications Group**

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