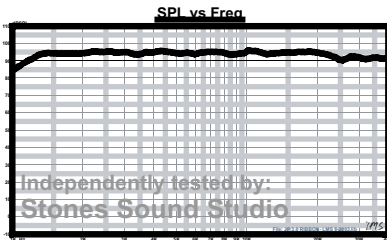


Sold In Matched Pairs

Fountek JP 3.0 True Ribbon Tweeter

WITH IMPEDENCE MATCHING TRANSFORMER

LOOK! RIBBONS LOOK!



From 2kHz to OVER 40KHz !



SHIELDED!

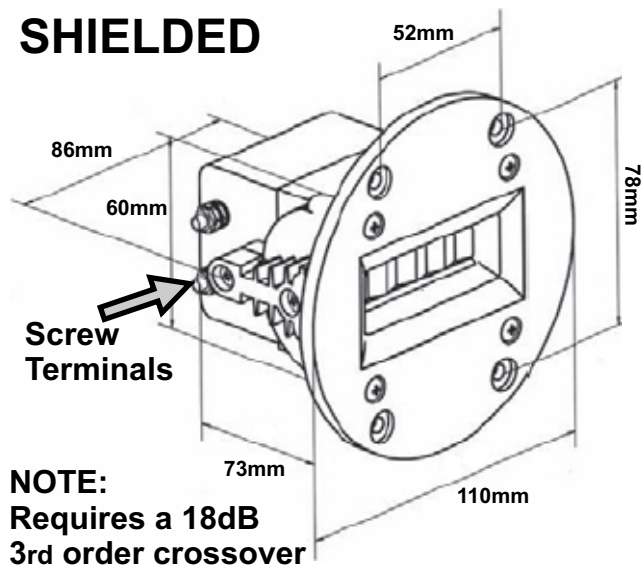
Features

- High-pressure injection moulded 5mm faceplate.
- Pure Aluminum ribbon (not a metalised film type).
- Super strong Neodymium magnet for high efficiency.
- Built-in Impedance conversion transformer with incredibly flat impedance for easy crossover design.
- Effective from 1,700 Hz upwards due to the large diaphragm area and low self-resonance.
- Extremely thin diaphragm (0.009mm Aluminum foil) guarantees a high degree of signal fidelity and broad frequency response. Only 11mg mass for instantaneous signal response and micro-detail.
- Low distortion factor, good power-handling capabilities, highly linear impedance and amplitude frequency response and broad frequency response range. Flat impedance curve from 1KHz to 40KHz.
- Individually factory tested and assessed then paired for efficiency and response matching.

This tweeter is a pure ribbon transducer. Ribbon Tweeters are world-renowned as one of the best high-end loudspeaker drivers available. The technology is based upon the use of a pure aluminum ribbon element acting as both the diaphragm and the voice coil. The element itself weighs a mere fraction of a traditional cone or dome, offering instantaneous reproduction of the signal and exquisitely fast decay times. If you are looking to improve upon the sound of standard high-end domes, the JP3.0 can provide the next step up in performance. The JP3.0 features a moving mass 30 times less than found on most conventional domes while offering a radiating area more than 10 times greater. This near weightless diaphragm is controlled by a very advanced motor structure that uses some of the latest materials and manufacturing techniques.

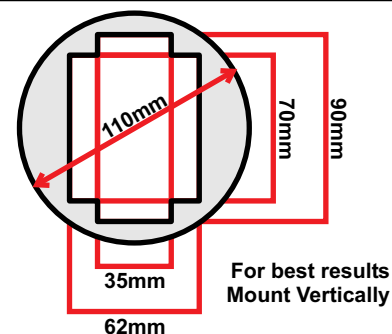
Ribbon: 100% Aluminium, 11mg, 480mm² 60x8x0.009mm
Gap: 3mm, 0.6Tesla
TX: 6ohm nominal (DC=0.0125ohm)
Sensitivity: 96dB (2.83V / 1M)
Power: 14Wrms 40Wmax

SHIELDED



SOLD IN MATCHED PAIRS ONLY

Code JP3.0
Cost \$POA .00 per pair



STONES SOUND STUDIO - The JP3.0 Ribbon Tweeter

Application Notes for the JP3.0. By Russell Storey of Stones Sound Studio.

This excellent, Chinese made, Ribbon Tweeter is similar to the popular Raven® type ribbon transducers, yet at a very reasonable price. Impressive aspects include a large alloy heat-sink assembly, encasing a shielded, high strength neo magnetic structure, ideal for home theatre applications in medium powered systems. Effective from 2KHz upwards, due to the large diaphragm area and low self-resonance. This extremely light 0.009mm thin Aluminum foil, weighing only 11mg, gives very quick and transient responses with fantastic detail, very wide dynamic range and an ultra-high frequency response. Low level detail and high efficiency is guaranteed by the use of high flux, double neodymium boron magnets. A very low distortion factor, good power-handling capabilities, highly linear impedance and Amplitude Vs Frequency with extra wide bandwidth and linear phase response. Suitable for any high end sound system. High definition, rear mounted matching transformer couples the alloy ribbon diaphragm to impedance match it for a nominal 7.5 ohms impedance at 1KHz. This is linear to 20KHz where it reaches 8.2 ohm making this an excellent load for crossover designs, with minimum phase variations. A round faced ribbon tweeter of 110mm diameter for flush mounting into speaker baffles.

Power Rating Cautions for the JP3.0 Ribbon Tweeter

The JP3.0 Ribbon tweeter is different to a conventional annular coil driven dome tweeter in its electronic and physical characteristics and should be treated with extra care because of the fragile and sensitive low mass diaphragm and its coupling transformer. Applied low frequency power to the ribbon tweeter should be limited by effective crossover design. The built-in coupling transformer has a primary resistance of only **0.2 ohms DC!** This, in effect, can short circuit an amplifier if run below the frequencies of 200Hz. Also, because of the ribbons low mass diaphragm, it is susceptible to physical damage at low frequencies and therefor best operated at or above about 3KHz. Thus a high order crossover is needed. SSS recommends a 3rd order filter (18dB/Oct) between 3.7K to 9KHz. The benefits of higher crossover frequencies and filter slopes is the higher the over-all system power will be.

Crossover Filters for the JP3.0 Ribbon Tweeter.

Because of the JP3.0 ribbon tweeters' wide bandwidth to 40KHz the crossover type is very important. Only use high grade, high quality capacitors and non inductive resistors. **WARNING;** If a simple 6dB/octave filter (single capacitor in series with the ribbon) is used below frequencies of 5KHz then low frequencies may damage the ribbon diaphragm! A 6db/Filter, single capacitor should only be used above 8KHz as in a super tweeter type speaker system (suggest a 2.2uf /400V metalized poly as a maximum value, see SCR2.2). For lower crossover frequencies in the range from 3KHz to 8KHz the ribbon requires a minimum of a 2nd order 12dB/oct or better a 3rd order 18db/octave high pass filter design. See below for a design which SSS has developed specifically for the JP3.0 ribbon tweeter for general applications, as tested. It is a 3rd order crossover (18dB) at 7.5KHz developed to optimize power handling and frequency response maintaining high quality and wide bandwidth for this very impressive ribbon tweeter. The resistor matching attenuator is about -4dB making the JP3.0 suitable for use with a driver array of about 92dB efficiency, adjustments here may be required. Use only premium quality components for best results. You will enjoy the open colourless sound of these premium drivers.

STONES SOUND STUDIO

AUDIO & ACOUSTIC ENGINEERING CONSULTANTS

SPEAKER ENCLOSURE DESIGN

Active / Passive Crossover Design

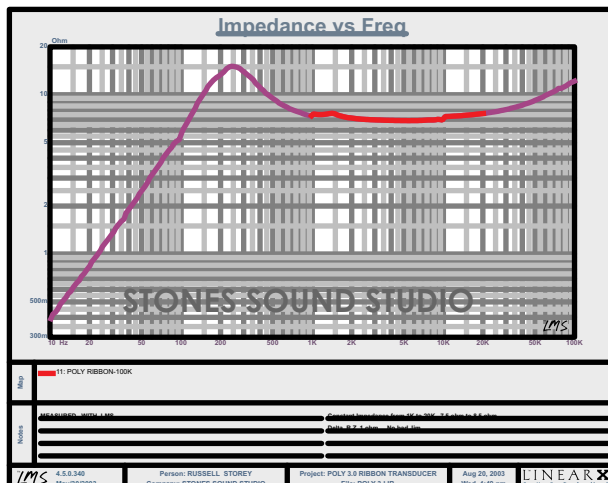
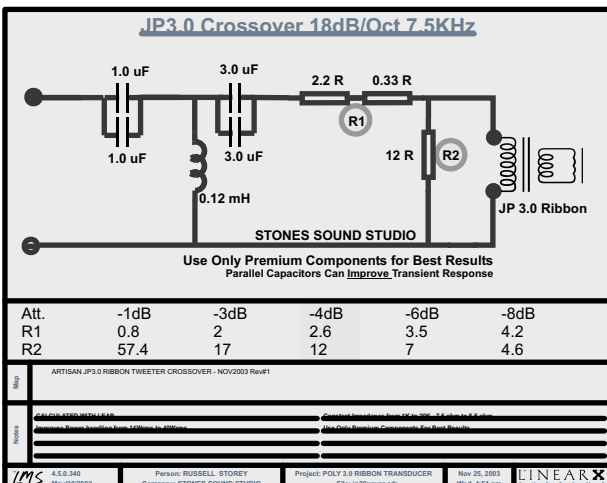
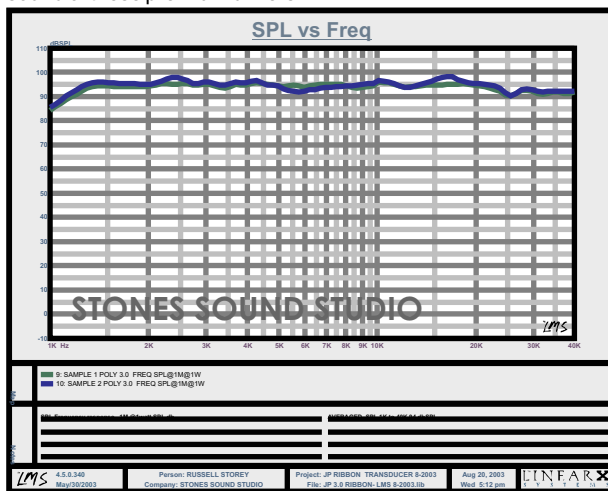
Commercial Speaker Driver Design

LEAP design LMS measurements

Upgrades to existing speaker systems & DVD, DVD-A, HDVD, CD

Remember you dont get the work of a surgeon for witch doctors rates

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Warning! Testing Instructions:
 0.5W@0.5meter signal from 1,000Hz~40,000Hz - without capacitor, and must make sure amplifier is well connected with tweeter. Turn off the amplifier before suspending the connection, and powering off amplifier is a must before connection. Full Range Test is not recommended, because in the low frequency the impedance of tweeter is almost zero, which makes it very easy to burn the tweeter and overload the amplifier. Never do any test below 200Hz. 200 millivolt may be used to test frequency.

Stone Sound Studio is an independent Audio Assessment company.