F-Series Drives

Feonic F6.2 Audio Drive

The Feonic F6.2 Audio Drive is a miniature vibration audio drive that can be used in portable and mobile products to deliver a better bandwidth than equivalent sized speakers through resonant surfaces that the device sits on – i.e. a desktop or table.

Feonic’s F-Drive Audio Technology is unlike traditional speaker technology because it uses a very high powered low amplitude magnetostrictive smart material as a solid state exciter instead of a moving coil. Typical amplitude at 200Hz is less than 10 microns of movement, producing a unique “feedback free” audio solution.

The F6.2 can be supplied as a component for integration into a dedicated zinc (or similar high mass) chassis and will require at least 200gms of solid mass (weight) to enable it to sound on resonant surface.

Alternatively it can be supplied with a custom designed chassis to customers own requirements.

Key benefits

Delivering a wide bandwidth 150Hz – 20KHz audio signal for less than 3 watts of power offers mobile accessory product designers massive freedom to design smaller, better quality sounding devices than traditional speaker technology offers.

Technical Specification

- Impedance: 8 Ohms
- Integrated Circuitry: N/A
- Operating temperature range: -20°C to +80°C* (-50°F to 176°F)
- Storage temperature range: -20°C to +100°C* (-50°F to 212°F)
- Weight: c50g (minimum recommended product weight c200g)
- Dimensions: 25mm (W) x 52mm (L) x 18.4mm (H)
- Mounting method: Rubber foot pad
- Connection to amplifier: CJT A1251H-2P 2 pin wire to board connector, Pin spacing 1.25mm
- Recommended amplifier power rating: 10Watt
- Sensitivity: TBA
- Typical Bandwidth: 150Hz to 20,000Hz
- Sound Pressure Level: Peak 92dB(A) (SPL 80dB(A) @ 1kHz) 0.5m
- Amplitude: <10μm (microns at 200Hz)
- Speech Transmission Index / Common Intelligibility Scale: N/A
- Environmental protection: IP55 (Impervious to moisture damage**)

Typical applications

The F6.2 miniature audio drive can be integrated into any small mobile or audio device to enable invisible audio to sound through a desktop or other resonant surface. At least 200gms of weight is required to achieve a frequency response of 150Hz, more weight helps improve the low frequency response further.

- Mobile phone chargers and docks
- Lap top PC’s
- Tablet computers
- VOIP devices
- Hands-free equipment
- Conference call systems

1Recommended amplifier power rating for optimum performance.
2Sensitivity measured with 1kHz sine wave at 1Watt.
3Max Sound Pressure Level (SPL) achieved with sounder mounted on same side as measurement with 1kHz sine signal just prior to input signal distorting.
4STI/CIS values, measured to IEC Standard 60268-16, are typical values since it is dependent on acoustics of installation site.*High temperature variants available on special order. **Cannot be immersed

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