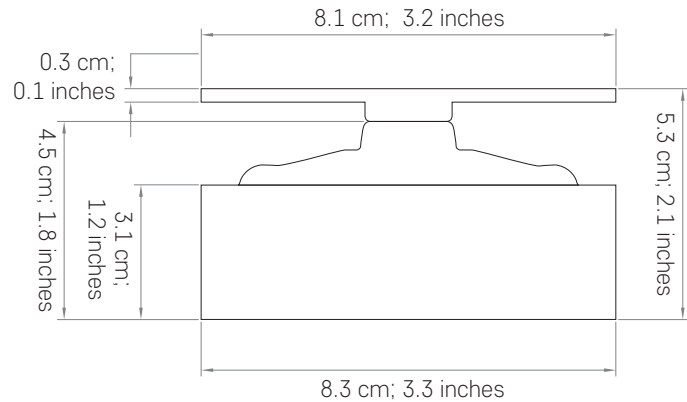


## Transducer

Invisibly deliver masking, paging and music via a solid surface such as gypsum, eliminating the need to cut in loudspeakers.

Also use this model to transfer masking sound to most types of walls, windows, doors, and other solid surfaces, in order to impede audio surveillance and eavesdropping.

When combined with proprietary TARGET tuning, this purpose-built transducer consistently delivers the correct masking spectrum and levels, overcoming the challenges typically encountered when attempting to manually adapt output to counter the influence of the material to which the transducer is attached.



## T

### Driver Specifications

Frequency Range	100 to 10,000 Hz (+/-2 dB)*
Sensitivity	68.3 dBA**
Power Handling	15 W (RMS)
Impedance (nominal)	16 ohms
DC Resistance	12 ohms
Magnet	Barium ferrite (72 x 32 x 15 mm)
Voice Coil	25 mm, 2 layer, round Cu 0.11 mm, aluminum former
Load Test	IEC268-5-C (15 W)
Endurance Test	Dry Heat: 70 °C ± 2 °C; 20 ~ 50% R.H. for 16 Hrs. Damp Heat: 40 °C ± 2 °C; 90 ~ 95% R.H. for 16 Hrs. Cold: -10 °C ± 2 °C; for 2 Hrs.

### Connections

Input	Terminal plugs to 2-pin Molex connector
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### Cabling

Transducer to Hub	CA2 series cable
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### Physical Specifications

Dimensions (W x H)	8.3 x 5.3 cm; 3.25 x 2.12 inches
Housing	Plenum-rated resin
Color	Black
Weight	0.57 kg; 1.3 lbs

<b>Mounting</b>	Double-sided tape (3M 300LSE), screw, bracket
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<b>Warranty</b>	5 years; see LogiSon® Product Warranty for details
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<b>Certifications</b>	Meets UL, CE and is approved for use in air-handling plenums; RoHS compliant
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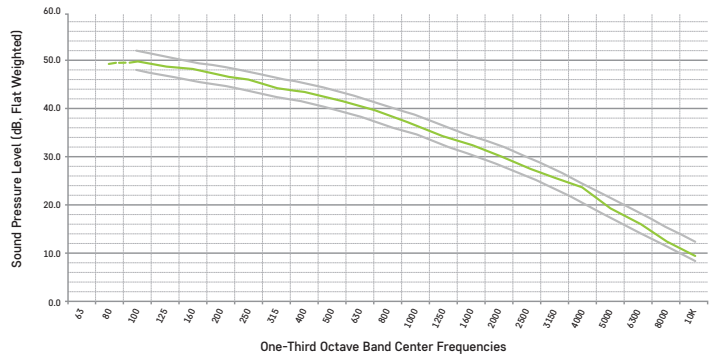
\* Typical gypsum ceiling application, equalization to NRC Optimum Spectrum

\*\* Typical gypsum ceiling application, 1W (3.55V)/1m, white noise signal (Clio)

# Frequency Response Performance Testing

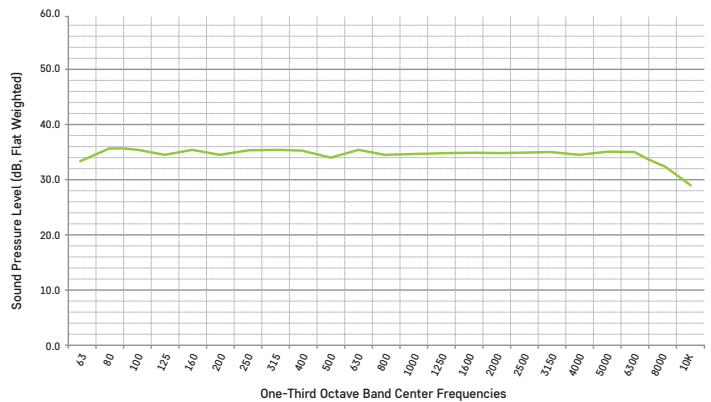
## NRC Optimum Masking Spectrum, LogiSon TARGET Equalization

Typical T-1 masking spectrum frequency response on gypsum. Tested at 1 m. Output (green) is well within typical specified tolerances of +/-2.0 dB in each one-third octave band (grey) from 100 Hz to 10,000 Hz for an overall level of 48 dBA. Averaged from three samples, each of which was within the above tolerances. Output extends below the National Research Council (NRC) Optimum Masking Spectrum range, to 80 Hz.



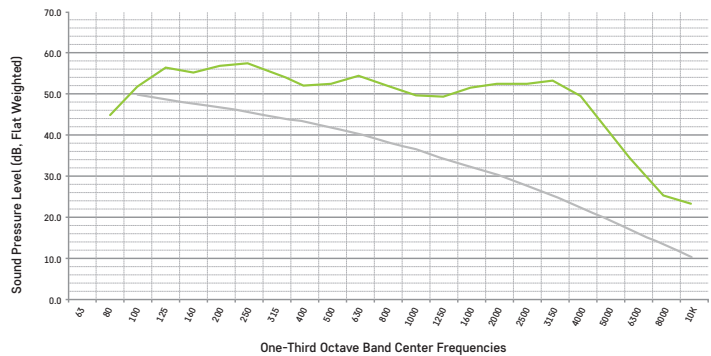
## Flat, LogiSon TARGET Equalization

Typical T-1 frequency response on gypsum. Tested at 1 m. Output (green) is from 63 to 10,000 Hz (-6 dB). Overall level is 46.7 dBA. Drop off above 6,300 Hz reflects pre-shaping filters in the masking signal.



## 90% Maximum Output Settings

Typical T-1 frequency response on gypsum at approximately 90% maximum output settings. Tested at 1.2 m (4 feet) above the floor. Overall level is 62.9 dBA. Output shown relative to NRC Optimum Masking Spectrum (grey) at 48 dBA (typical maximum level during tuning). Output exceeds the 48 dBA spectrum from 100 to 10,000 Hz. Drop off above 4,000 Hz reflects pre-shaping filters in the masking signal.



## Testing Details

Three random production samples were tested individually. Using 3M 300LSE adhesive tape, each was affixed to the center of a 4x8-foot, 0.5-inch gypsum ceiling, with metal bracing positioned at 24 inches on center and suspended 10 feet above the floor. The test environment was a large open space (over 5,000 ft<sup>2</sup>) with concrete walls and flooring, and 14 feet of space above the gypsum ceiling. Measurement

distance was as noted above, using a time-averaged period of 15 seconds. Overall levels were A-weighted. One-third octave band levels were flat-weighted. Equipment used included an Ivie Class 1 IE45 Analyzer, BSWA Class 1 CAIII Pistonic Calibrator, Audiomatica Clio 12 QC Electro-acoustical Measurement System with Clio Class 1 Mic 2, LogiSon Primary Network Hub (PNH-3), and LogiSon

TARGET software. Note that a transducer's frequency response is driven by the material to which it is attached, the manner of attachment and the environment. There are no standardized methods for testing performance. These tests demonstrate that the Transducer (T-1) implemented using TARGET tuning conforms to typical masking specifications in gypsum ceiling applications.