



Tuned Frequency Absorber

MR12-0003-00



MAST Technologies' Tuned Frequency Absorber product series is a thin magnetically loaded sheet stock. Tuned Frequency Absorbers, also known as resonant frequency absorbers, provide great reflection loss at a discrete frequency, typically offering 20dB of attenuation. Tuned Frequency Absorbers offer a narrowband of absorption, typically +/-10% of the resonant frequency, so are best used when a single discrete frequency is trying to be absorbed. MAST Engineers can tune an absorber to any frequency from 1 to 40 GHz, by simply changing the formulation and thickness.

APPLICATIONS

- Ship MASTs
- Specular return (RCS)
- Discrete frequency absorption
- Antenna isolation & patterning
- Aircraft seals
- Aircraft ducts
- Instrument housings

FEATURES & BENEFITS

- Tough material can survive outdoor exposure
- Very thin for compact locations
- Flexible elastomeric material will not crack
- Narrow frequency range
- RoHS Compliant
- Halogen Free

TYPICAL PROPERTIES

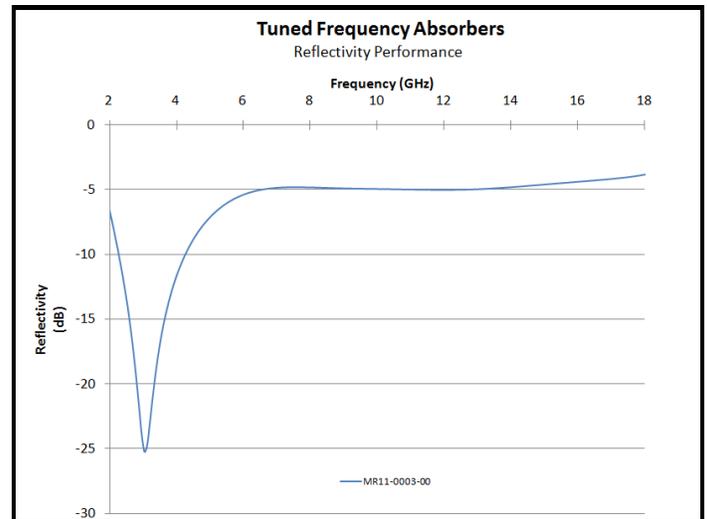
- Frequency: 3.0 GHz
- Thickness: 0.095" (2.4mm)
- Adhesive Thickness: 0.005" (0.05mm)
- Color: Dark Grey
- Elastomer: Nitrile
- Operating Temperature: -60°F to 300°F
- Flammability Rating: Not Rated
- Hardness: Shore A 60-80

PART NUMBERING: MR12-0003-XX

- 00: No PSA backing
- 01: PSA backing
- >10: Die Cut

ELECTRICAL PERFORMANCE

This performance plot illustrates the reflection loss performance of this material. Reflection loss is measured on an NRL arch, for more information on the NRL arch test set-up, please refer to Tech Bulletin 101. Additional electrical test data may be available upon request.



METHOD OF APPLICATION

The primary method of application for Tuned Frequency Absorbers is utilizing a Pressure Sensitive Adhesive (PSA) backing. MAST proudly uses 3M transfer tapes on its Tuned Frequency Absorbers. Contact MAST technical representatives for a data-sheet on the PSA.

Other liquid and paste adhesives may be recommended. Contact a MAST technical representative for more information.

AVAILABILITY

- Standard Sheet Sizes: 20" x 20" (564 x 564mm)
- 24" x 24" (769 x 769 mm)
- Format: Sheets, Die Cut, Kiss Cut Pads

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All information on this data sheet is based on laboratory testing and is not intended for design purposes. MAST Technologies makes no representations or warranties of any kind concerning this data. For part number quality assurance specifications, please contact a MAST Technologies technical representative.