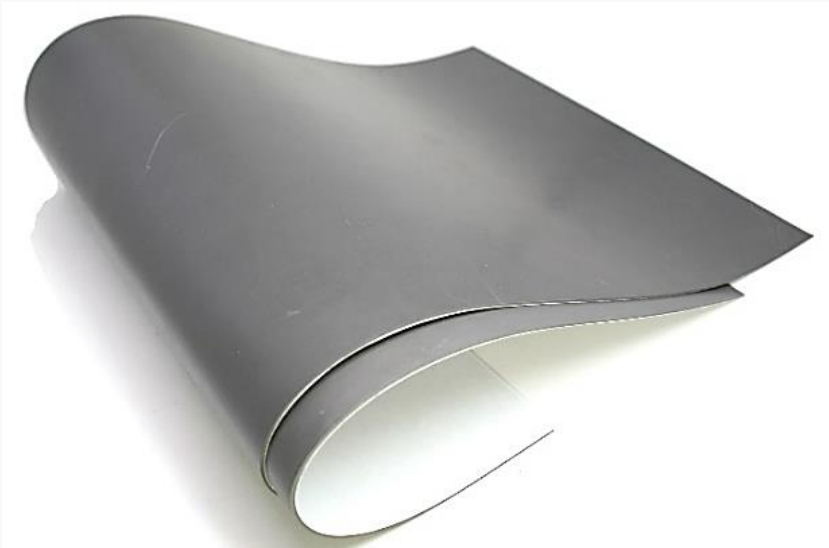


Microwave Farm's MF-AbsorberTM is microwave absorber in thin sheet format made of a mixture of polymer resin and metal magnetic powder which is thin and flexible and excellent in workability and can be easily bonded. This absorber can suppress radiation noise of electronic devices for wideband microwave frequency range and reduce surface current as well as surface reflection in cavity resonant application.



■ Features

- Available for Microwave Freq. range
- Lightweight, flexible, thin and excellent processability
- Wide absorption bandwidth
- Included Adhesive tape on backside

■ Markets

- Commercial communications
- Security and Defense
- Antenna Chamber
- Automotive, general electronics



■ **Applications**

- MF-Absorber can suppress radiation noise of electronic devices for wideband radio frequency range and is effective in reducing surface current as well as surface reflection in cavity resonant applications due to the high magnetic loss characteristics of materials.
- It suppresses the reflection inside the microwave module and is used to reduce cavity resonance of the module.
- It is particularly suitable for use in masts of ships and walls to reduce reflections and echoes to nearby antennas and to reduce overall radar signatures by attaching to vehicles.
- It can be used for various applications such as anechoic chamber, medical equipment facility.

■ **Availability**

- Standard sheet size : S1 (105 X 150 mm) , S2 (150 x 210 mm), S3 (210 x 300 mm : A4 Size)
- MF-Absorber can be used in different sizes, thicknesses and custom configurations on request.
- Thickness depends on the desired resonant frequency, and other resonant frequencies are available according to special request.

■ **Instructions for USE**

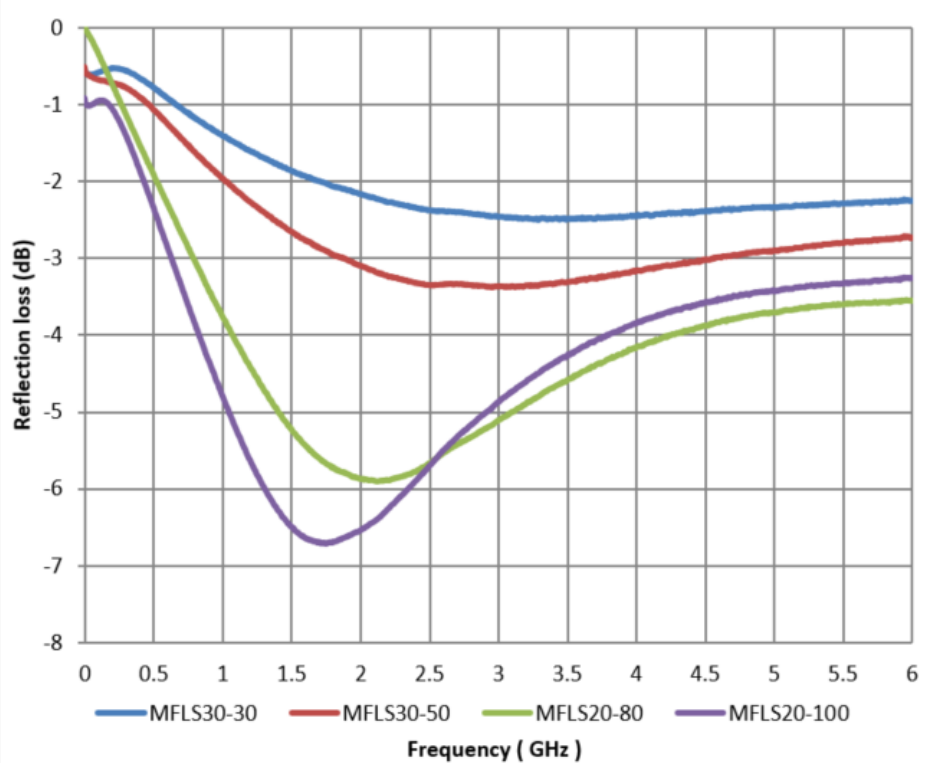
- MF-Absorber is designed to function directly in front of a metallic surface. Otherwise, a metallic foil should be bonded to the object.
- Epoxy and acrylic adhesives are recommended or use the self-adhesive version.
- To obtain a strong bond of the absorber to the object, the metallic surface should first be thoroughly cleaned with a degreasing solvent.
- MF-Absorber can be readily cut with a sharp knife and template.

Specification

Items	MFLS20-80	MFLS20-100	MFLS30-30	MFLS30-50
Freq. Range (GHz)	< 6.0			
Peak &Center Freq. (GHz)	2.0	2.0	3.0	3.0
Standard Thickness (mm)	0.8	1.0	0.3	0.5
Standard Size (mm)	S1 : 105 X 150 S2 : 150 X 210 S3 : 210 x 300 (A4 size)			
Surface Resistance (Ω)	1x10 ⁶ (min)			
Specific Gravity	3.4 ± 0.5			
Adhesive Force (kgf)	1.60 (thickness of Adhesive tape : 50 um)			
Temp. Range (°C)	-30 to 90			
Hardness (Shore A)	93 ± 5			

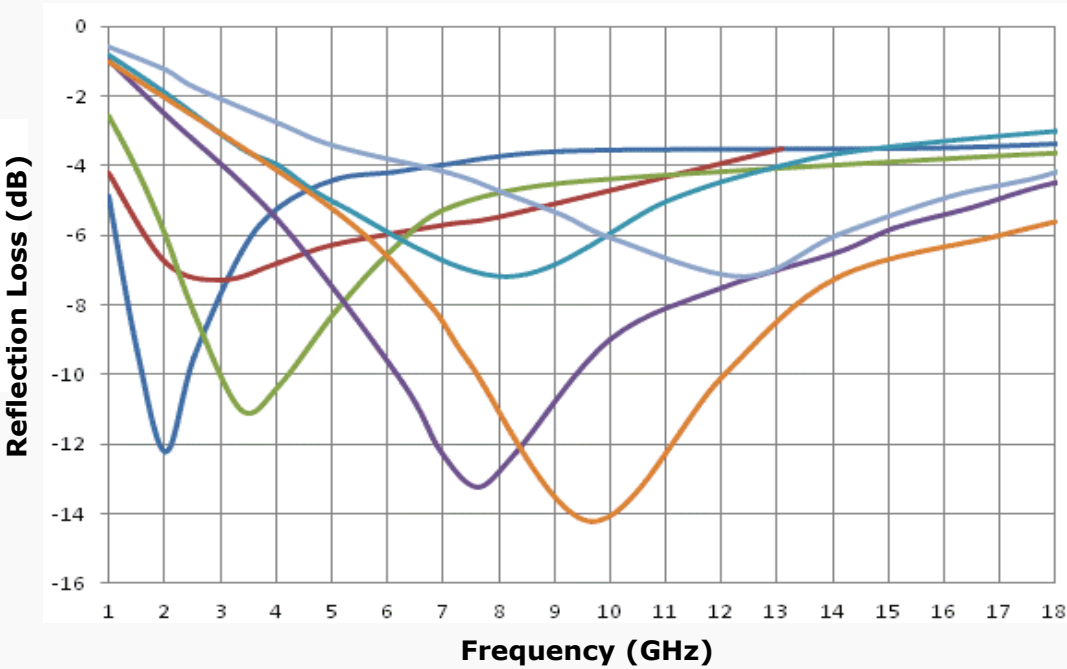
Test Data

*ROHS Compliant



Specification

Items	MFMT20-200	MFMT25-210	MFMT30-210	MFMT35-120	MFMT70-100	MFMT80-70	MFMT100-80	MFMT120-50
Freq. Range (GHz)	< 18.0							
Peak & Center Freq. (GHz)	2	2.5	3	2	7	8	10	12
Standard Thickness (mm)	2.0	2.1	2.1	1.2	1.0	0.7	0.8	0.5
Standard Size (mm)	S1 : 105 X 150 S2 : 150 X 210 S3 : 210 x 300 (A4 size)							
Surface Resistance (Ω)	1x10 ⁶ (min)							
Specific Gravity	3.4 ± 0.5							
Adhesive Force (kgf)	1.60 (thickness of Adhesive tape : 50 um)							
Temp. Range (°C)	-30 to 90							
Hardness (Shore A)	93 ± 5							



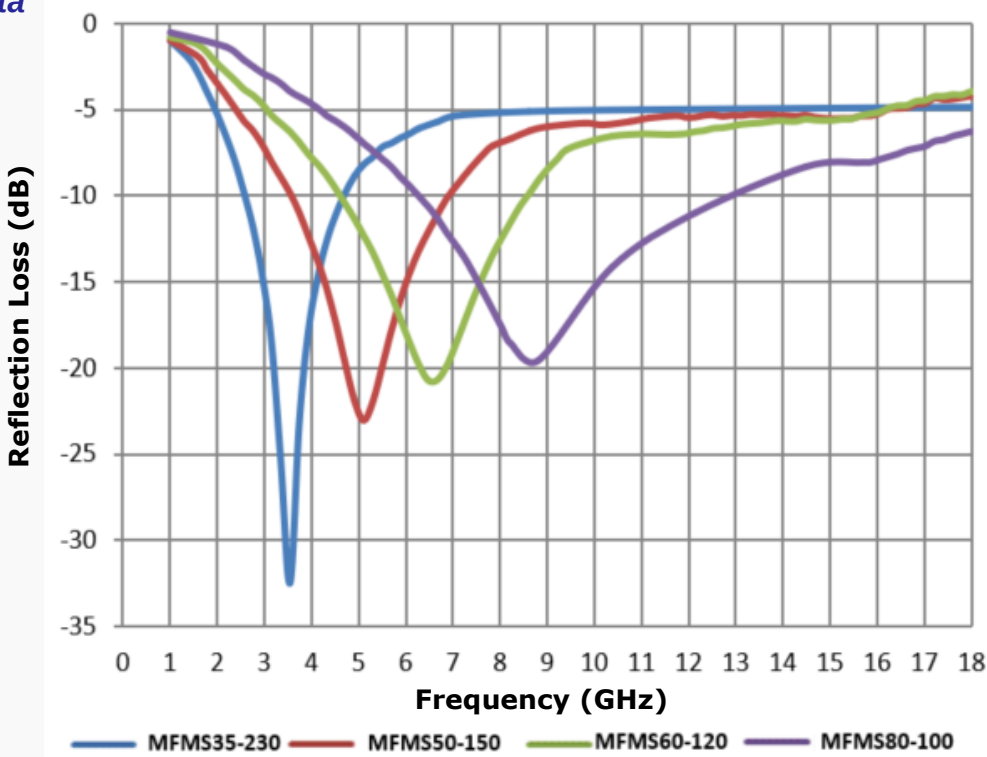
MFMT20-200 MFMT25-210 MF35-120 MFMT70-100 MFMT80-70 MFMT100-80 MFMT120-50

■ **Specification**

Items	MFMS35-230	MFMS50-150	MFMS60-120	MFMS80-100
Freq. Range (GHz)	< 18.0			
Peak &Center Freq. (GHz)	3.5	5.0	6.0	8.0
Standard Thickness (mm)	2.3	1.5	1.2	1.0
Standard Size (mm)	S1 : 105 X 150 S2 : 150 X 210 S3 : 210 x 300 (A4 size)			
Surface Resistance (Ω)	1x10 ⁶ (min)			
Specific Gravity	3.7 ± 0.7			
Adhesive Force (kgf)	1.60 (thickness of Adhesive tape : 50 μm)			
Temp. Range (°C)	-30 to 90			
Hardness (Shore A)	93 ± 5			

*ROHS Compliant

■ **Test Data**

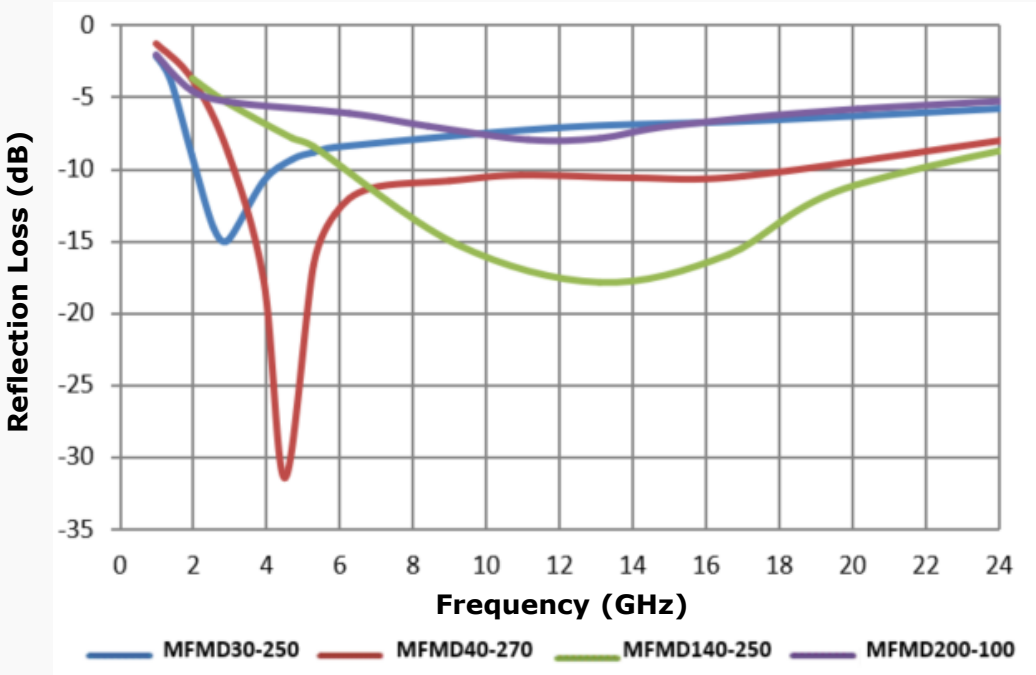


Specification

Items	MFMD30-250	MFMD40-270	MFMD140-250	MFMD200-100
Freq. range (GHz)	< 24.0			
Peak &Center Freq. (GHz)	3.0	4.4	14.0	20.0
Standard Thickness (mm)	2.5	2.7	2.5	1.0
Standard Size (mm)	S1 : 105 X 150 S2 : 150 X 210 S3 : 210 x 300 (A4 size)			
Surface Resistance (Ω)	1x10 ⁶ (min)			
Specific Gravity	3.4 ± 0.5			
Adhesive Force (kgf)	1.60 (thickness of Adhesive tape : 50 μm)			
Temp. Range (°C)	-30 to 90			
Hardness (Shore A)	93 ± 5			

*ROHS Compliant

Test Data

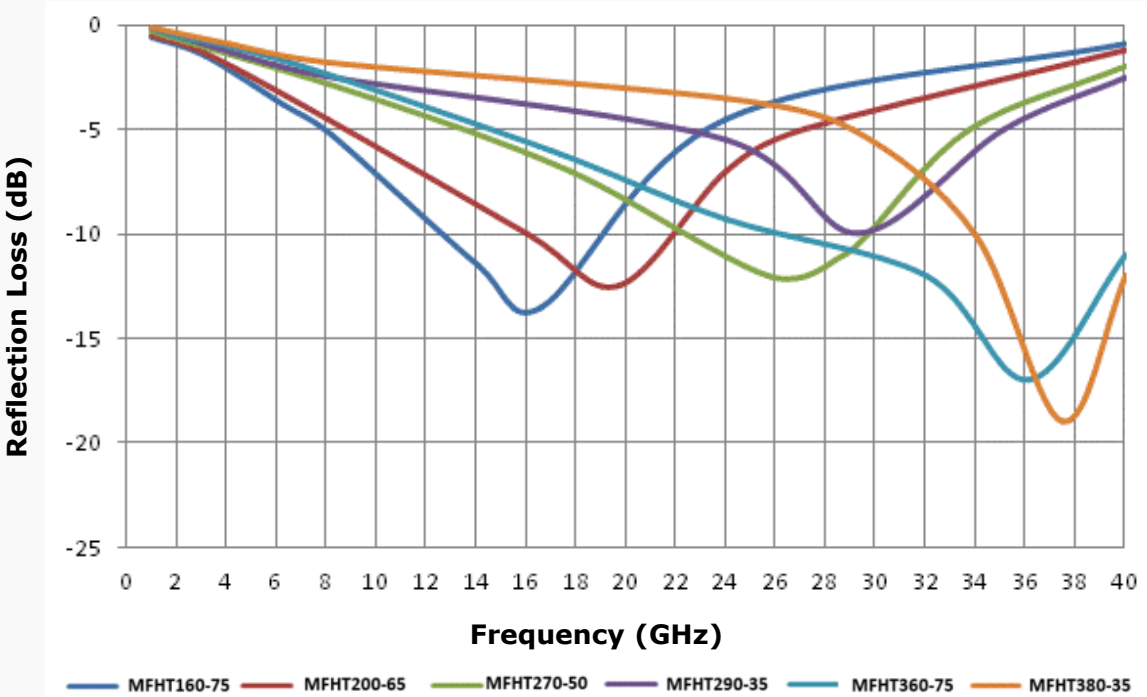


Specification

Items	MFHT160-75	MFHT200-65	MFHT270-50	MFHT290-35	MFHT360-75	MFHT380-35
Freq. Range (GHz)	<24	<28	<35			<40
Peak &Center Freq. (GHz)	16	20	27	29	36	38
Standard Thickness (mm)	0.75	0.65	0.5	0.35	0.75	0.35
Standard Size (mm)			S1 : 105 X 150 S2 : 150 X 210 S3 : 210 x 300 (A4 size)			
Surface Resistance (Ω)			1x10 ⁶ (min)			
Specific Gravity			3.4 ± 0.5			
Adhesive Force (kgf)			1.60 (thickness of Adhesive tape : 50 um)			
Temp. Range (°C)			-30 to 90			
Hardness (Shore A)			93 ± 5			

*ROHS Compliant

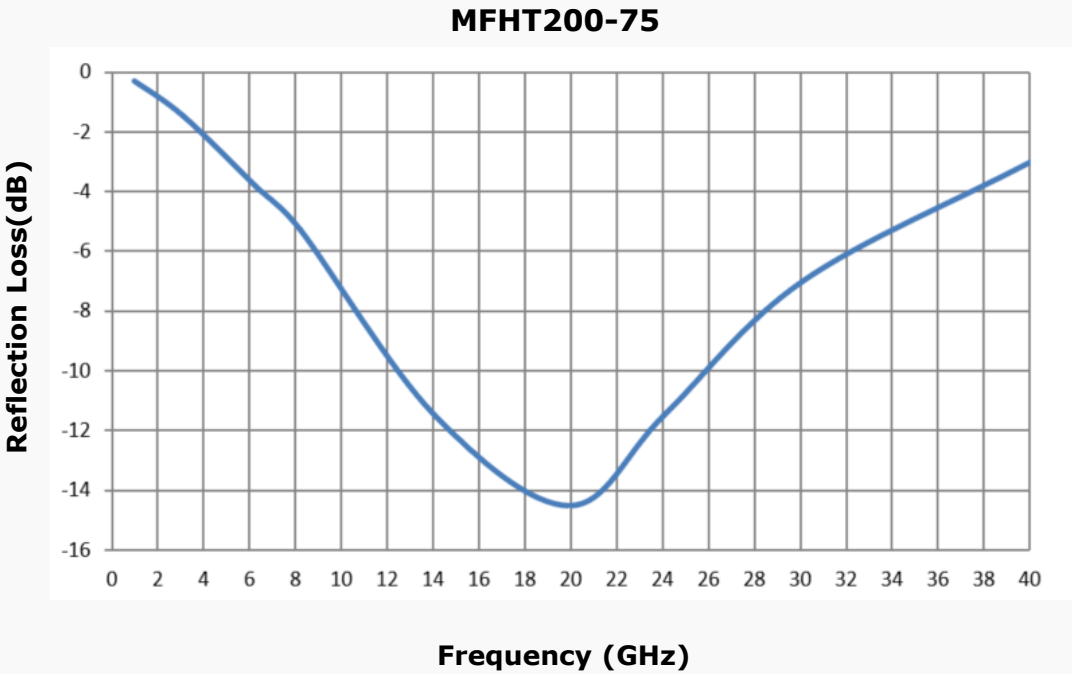
Test Data



■ Specification

Scope	Items	MFHT200-75
Electrical	Freq. range (GHz)	< 40
Material	Standard thickness (mm)	0.75
	Standard size (mm)	S1 : 105 X 150 S2 : 150 X 210 S3 : 210 x 300 (A4 size)
	Surface resistance (Ω)	1x10 ⁶ (min)
	Specific gravity	4.0 ± 0.5
	Temp. Range (°C)	-30 to 90
	Hardness (Shore A)	90 ± 5

*ROHS Compliant



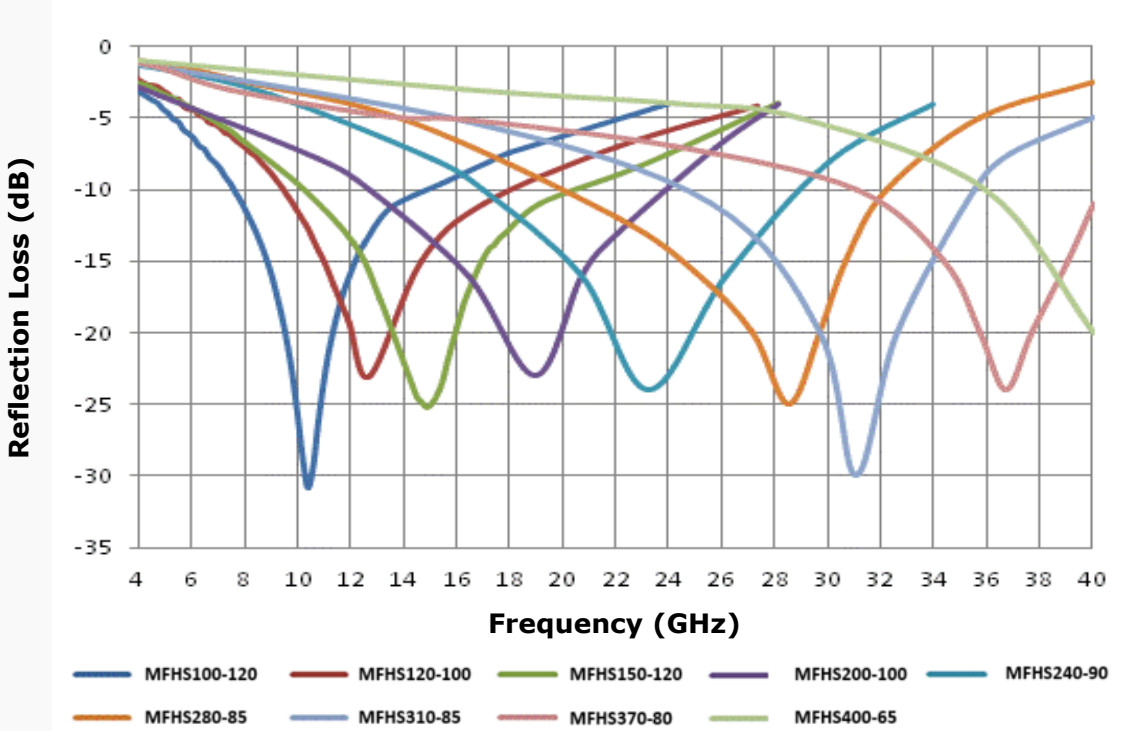


Specification

Items	MFHS100-120	MFHS120-100	MFHS150-120	MFHS200-100	MFHS240-80	MFHS280-85	MFHS310-85	MFHS370-80	MFHS400-65
Freq. Range (GHz)	~20		~26	~26	~32	~36	~40	~40	~45
Peak & Center Freq. (GHz)	10.2	12.5	15	19	24	28	31	37	40
Standard Thickness (mm)	1.2	1	1.2	1	0.8	0.85	0.85	0.8	0.65
Standard Size (mm)	S1 : 105 X 150 S2 : 150 X 210 S3 : 210 x 300 (A4 size)								
Surface Resistance (Ω)	1x10 ⁶ (min)								
Specific Gravity	3.4 ± 0.5								
Adhesive Force (kgf)	1.60 (thickness of Adhesive tape : 50 um)								
Temp. Range (°C)	-30 to 90								
Hardness(Shore A)	93 ± 5								

*ROHS Compliant

Test Data



■ Specification

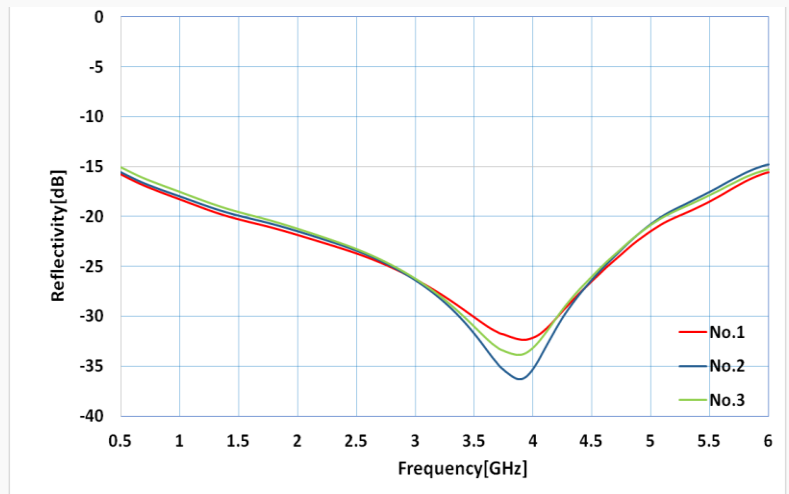
Broadband 2-Layer Type for Antenna Chamber, Shield Box

Items	MFLS20-320
Freq. range (GHz)	< 7.0
Peak & Center Freq. (GHz)	2.0 & 6.0
Standard thickness (mm)	3.2
Standard size (mm)	S3 : 210 x 300 (A4 size) S4 : 250 X 300
Surface resistance (Ω)	1x10 ⁶ (min)
Specific gravity	3.7 ± 0.7
Temp. Range (°C)	-30 to 90
Hardness (Shore A)	93 ± 5

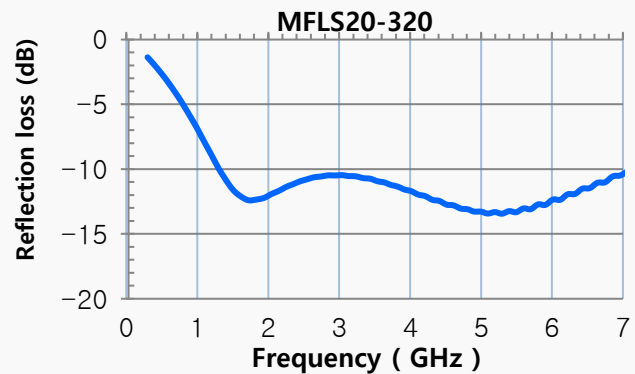
*ROHS Compliant

■ Test Data

NRL Arch test



Coaxial transmission line Test



* The NRL Arch is the industry standard for testing the reflectivity of materials. It allows quick, repeatable non-destructive testing of microwave absorbent materials over a wide frequency range.

■ **Specification**

*Broadband 2-Layer Type for Antenna Chamber, Shield Box
Dual Band Type (< 7GHz , 20 ~ 40 GHz)*

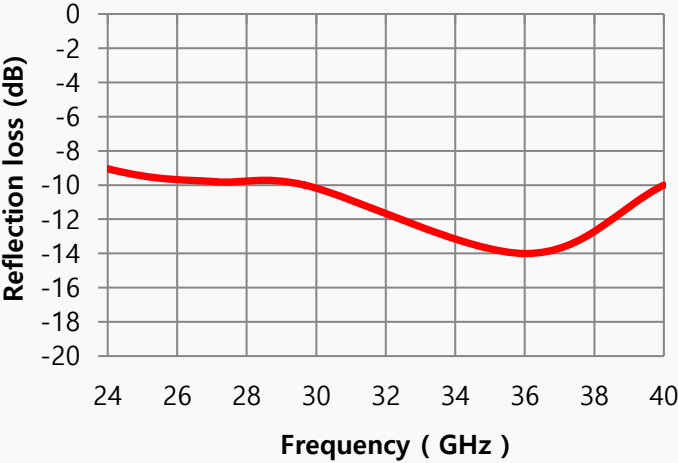
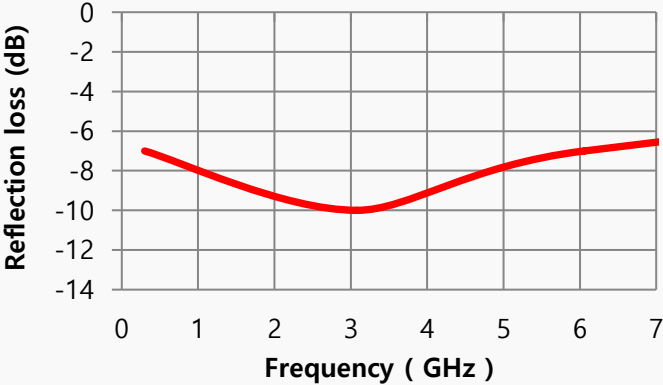
Items	MFLS30-300
Freq. range (GHz)	< 7.0 & 20~40
Peak & Center Freq. (GHz)	3.0 & 34.0
Standard thickness (mm)	3.0
Standard size (mm)	S3 : 210 x 300 (A4 size) S4 : 250 x 300
Surface resistance (Ω)	1x10 ⁶ (min)
Specific gravity	3.4 ± 0.5
Temp. Range (°C)	-30 to 90
Hardness (Shore A)	93 ± 5

■ **Test Data**

NRL Arch test

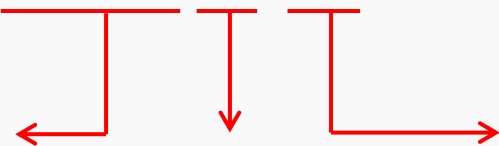


MFLS30-300



■ Selection Guide

MFMT70-100- S1



Absorber type

Thickness

Size

MFLS20-80
MFMT20-200
MFMS35-230
MFMD30-250
MFHT160-75
MFHS100-120

75 : 0.75 mm
80 : 0.80 mm
100 : 1.0 mm
200 : 2.0 mm
300 : 3.0 mm

S1 : 105 x 150 mm
S2 : 150 x 210 mm
S3 : 210 x 300 mm (A4 Size: Standard)
S4 : 150 x 300 mm (2-Layer)
S5 : 240 x 360 mm (2 Layer)

S1

S2

S3

S4

S5

