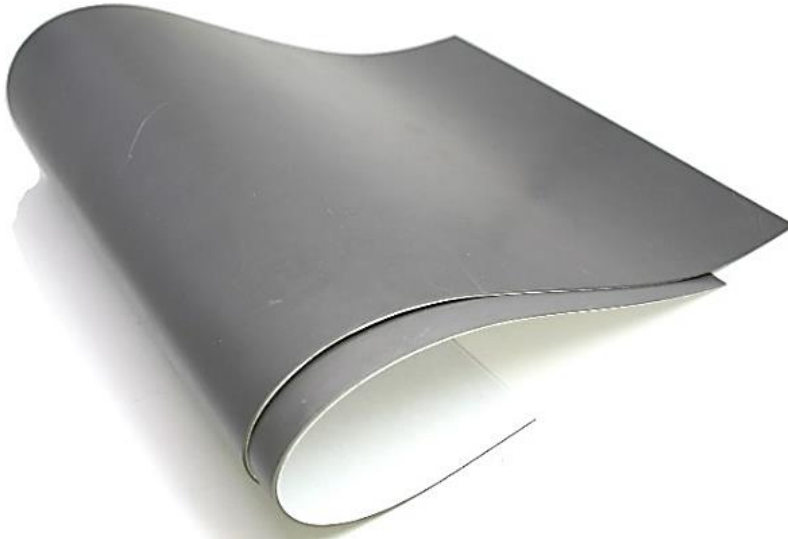


Withwave's W-AbsorberTM is microwave absorber in thin sheet format made of a mixture of polymer resin and metal magnetic powder which is thin and flexible and excellent in workability and can be easily bonded. This absorber can suppress radiation noise of electronic devices for wideband microwave frequency 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

■ Markets

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



■ Applications

- W-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

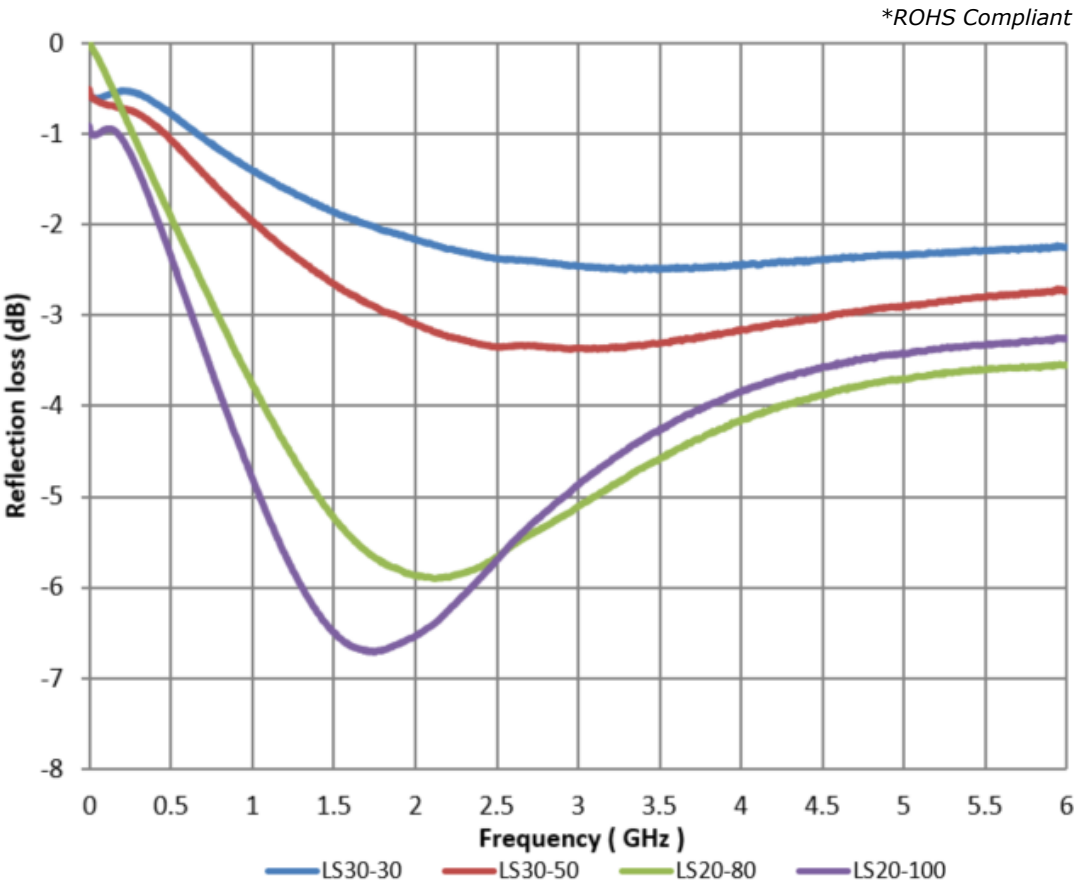
- Standard sheet size : S1 (105 X 150 mm) , S2 (150 x 210 mm), S3 (210 x 300 mm : A4 Size)
- W-Absorber can be used in different sizes, thicknesses and custom configurations on request.
- Thickness depends on the desired resonant frequency, and other resonant frequencies are available according to special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

■ Instructions for USE

- W-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.
- W-Absorber can be readily cut with a sharp knife and template.

■ Specification

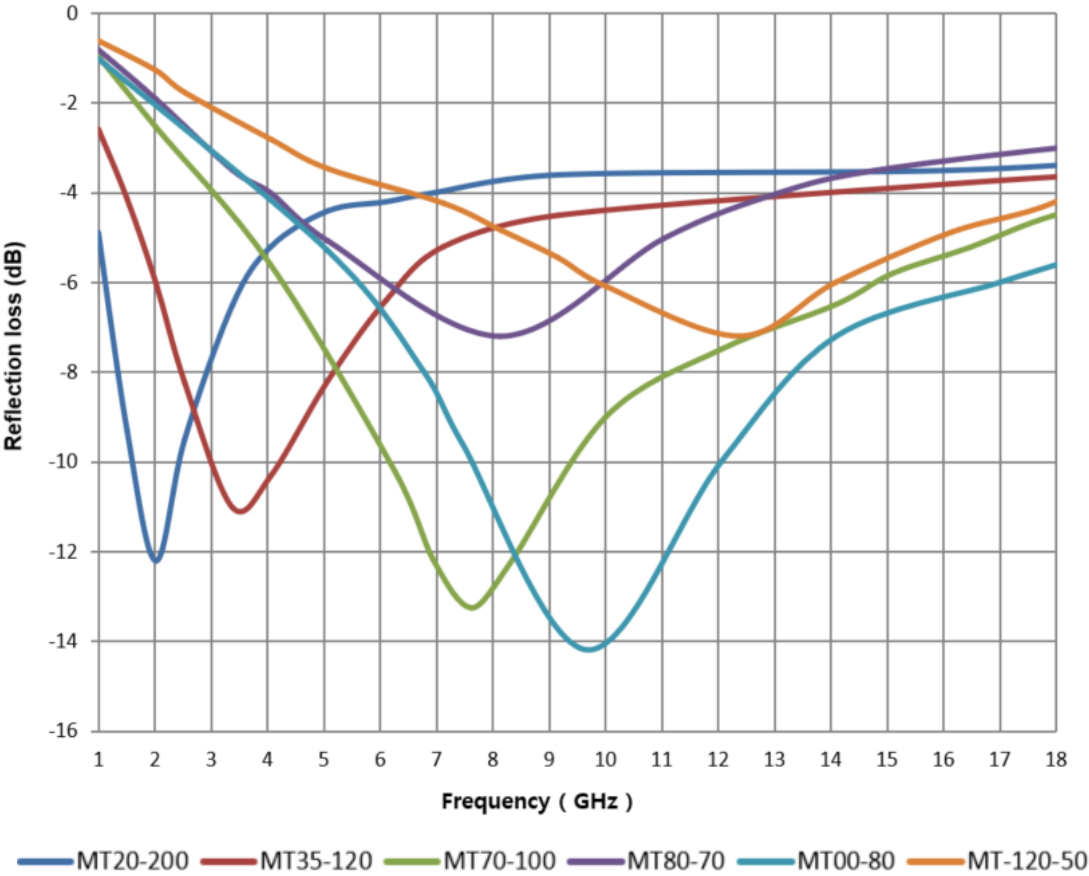
Items	LS20-80	LS20-100	LS30-30	LS30-50
Freq. range (GHz)	< 6.0			
Peak & Center Freq. (GHz)	2.0	2.0	3.0	3.0
Standard thickness (mm)	0.8	1.0	0.3	0.5
Standard size (mm)	S1 : 105 X 150 S2 : 150 X 210 S3 : 210 x 300 (A4 size)			
Surface resistance (Ω)	1x10 ⁶ (min)			
Specific gravity	3.4 ± 0.5			
Temp. Range (°C)	-30 to 90			
Hardness (Shore A)	93 ± 5			



■ Specification

Items	MT20-200	MT35-120	MT70-100	MT80-70	MT100-80	MT120-50
Freq. range (GHz)	< 18.0					
Peak &Center Freq. (GHz)	2.0	2.0	7.0	8.0	10.0	12.0
Standard thickness (mm)	2.0	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	3.7 ± 0.7					
Temp. Range (°C)	-30 to 90					
Hardness (Shore A)	93 ± 5					

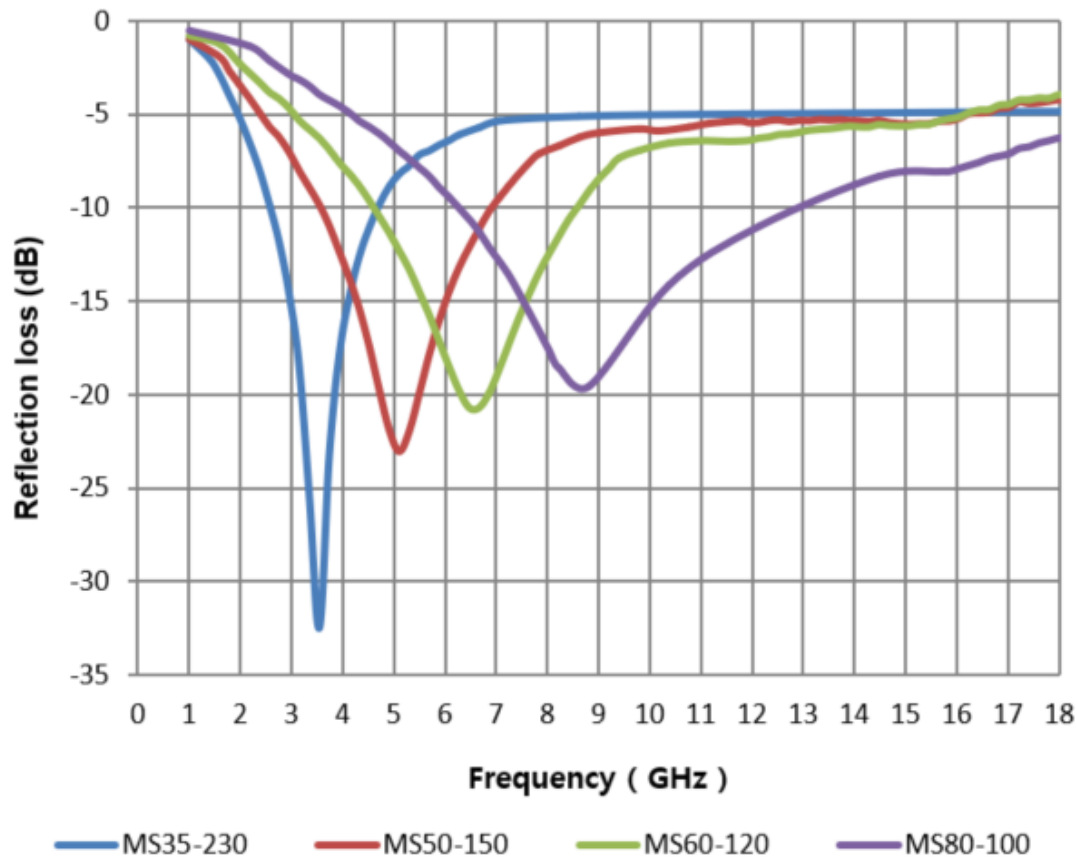
*ROHS Compliant



■ Specification

Items	MS35-230	MS50-150	MS60-120	MS80-100
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			
Temp. Range (°C)	-30 to 90			
Hardness (Shore A)	93 ± 5			

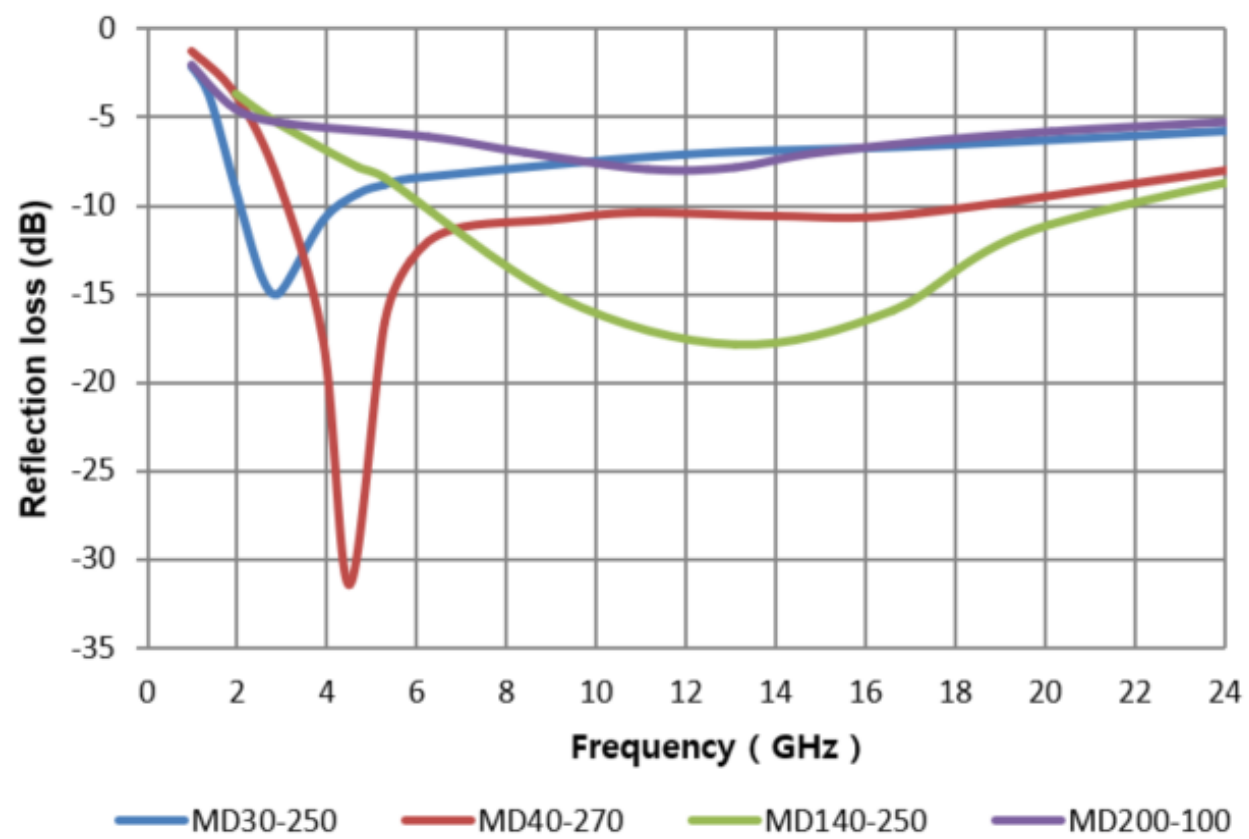
*ROHS Compliant



■ Specification

Items	MD30-250	MD40-270	MD140-250	MD200-100
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			
Temp. Range (°C)	-30 to 90			
Hardness (Shore A)	93 ± 5			

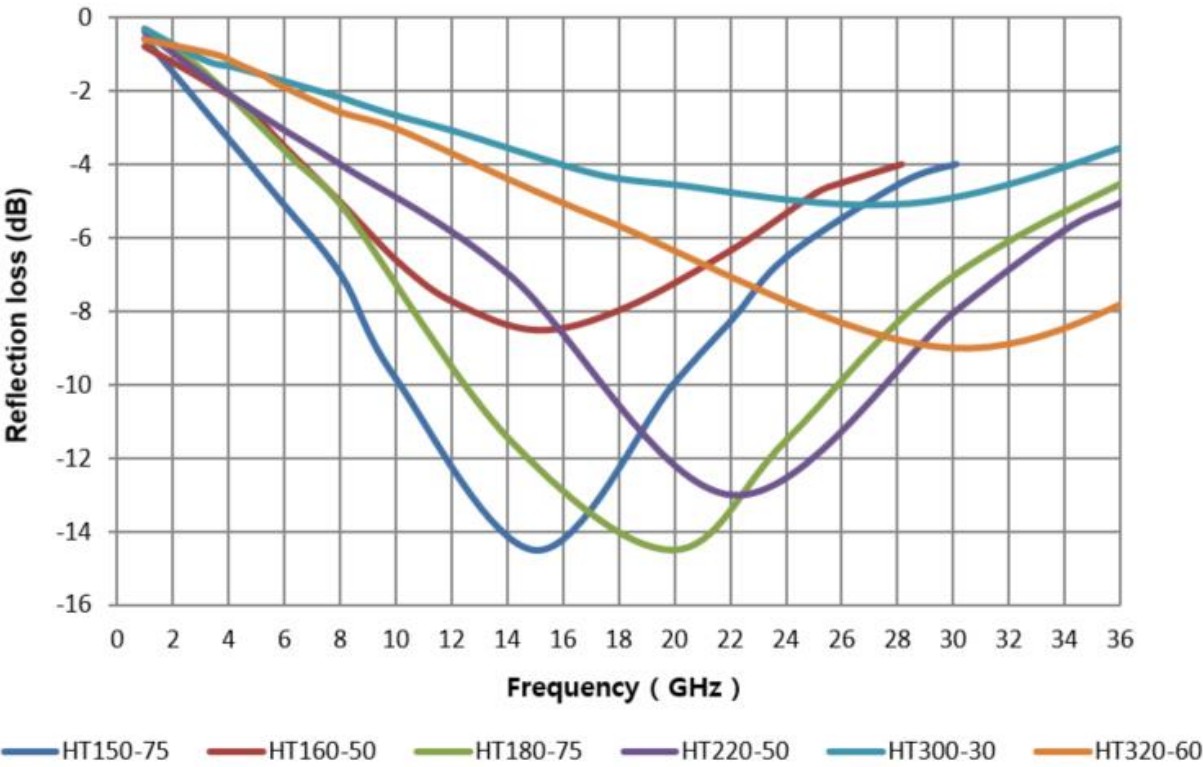
*ROHS Compliant



■ Specification

Items	HT150-75	HT160-50	HT180-75	HT220-50	HT300-30	HT320-60
Freq. range (GHz)	< 26.0			< 36.0		
Peak &Center Freq. (GHz)	15.0	16.0	18.0	22.0	30.0	32.0
Standard thickness (mm)	0.75	0.5	0.75	0.5	0.3	0.6
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					
Temp. Range (°C)	-30 to 90					
Hardness (Shore A)	93 ± 5					

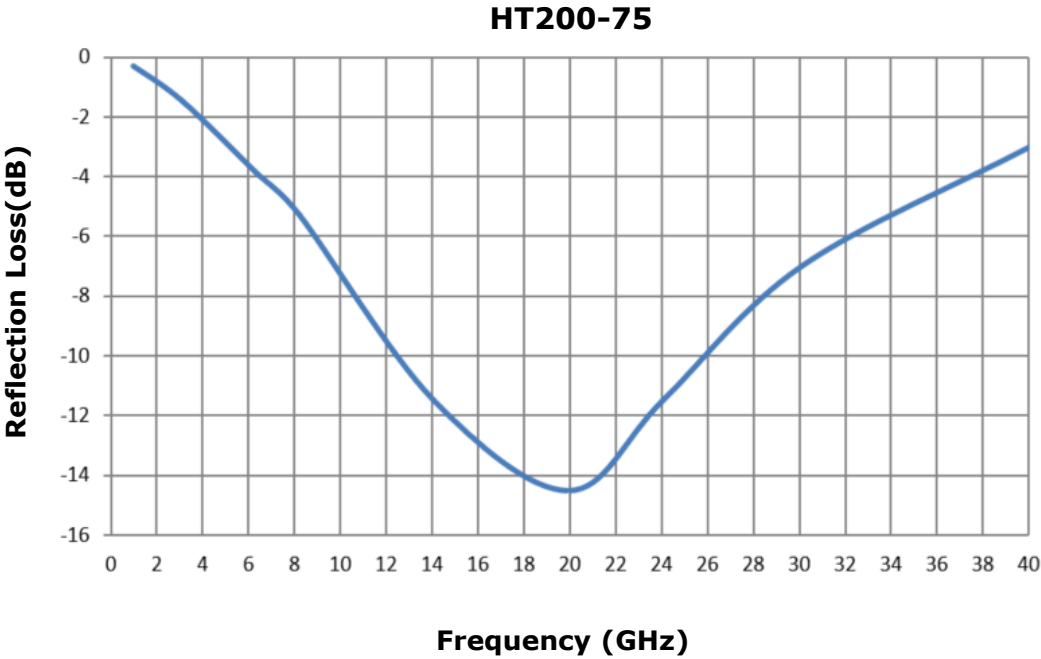
*ROHS Compliant



■ Specification

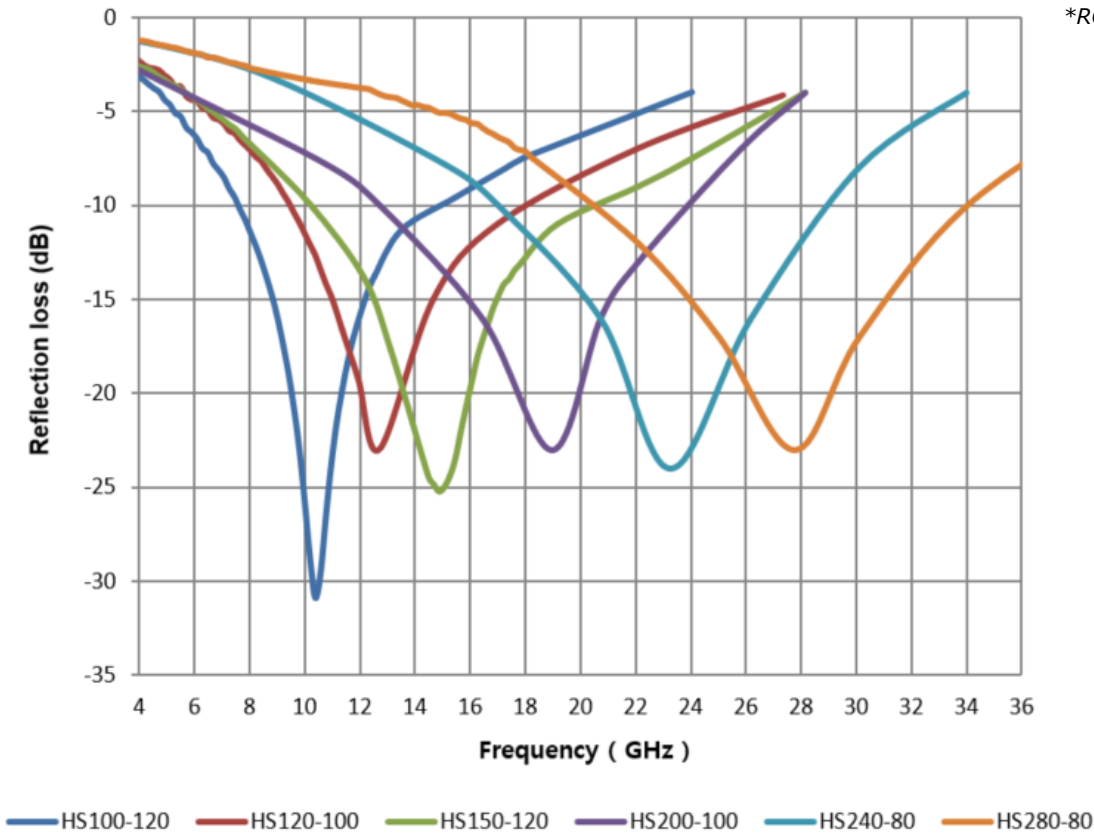
Scope	Items	HT200-75
Electrical	Freq. range (GHz)	< 40
Material	Standard thickness (mm)	0.75
	Standard size (mm)	S1 : 105 X 150 S2 : 150 X 210 S3 : 210 x 300 (A4 size)
	Surface resistance (Ω)	1x10 ⁶ (min)
	Specific gravity	4.0 ± 0.5
	Temp. Range (°C)	-30 to 90
	Hardness (Shore A)	90 ± 5

*ROHS Compliant



■ Specification

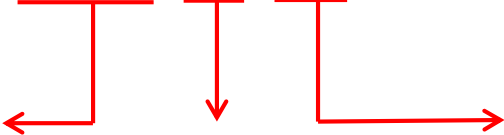
Items	HS100-120	HS120-100	HS150-120	HS190-100	HS240-80	HS280-80
Freq. range (GHz)	< 20.0		< 26.0		< 32.0	< 36.0
Peak & Center Freq. (GHz)	10.2	12.5	15.0	19.0	24.0	28.0
Standard thickness (mm)	1.2	1.0	1.2	1.0	0.8	0.8
Standard size (mm)	S1 : 105 X 150 S2 : 150 X 210 S3 : 210 x 300 (A4 size)					
Surface resistance (Ω)	1x10 ⁶ (min)					
Specific gravity	3.4 ± 0.5					
Temp. Range (°C)	-30 to 90					
Hardness (Shore A)	93 ± 5					



*ROHS Compliant

■ Selection Guide

MT70-100- S1



Absorber type

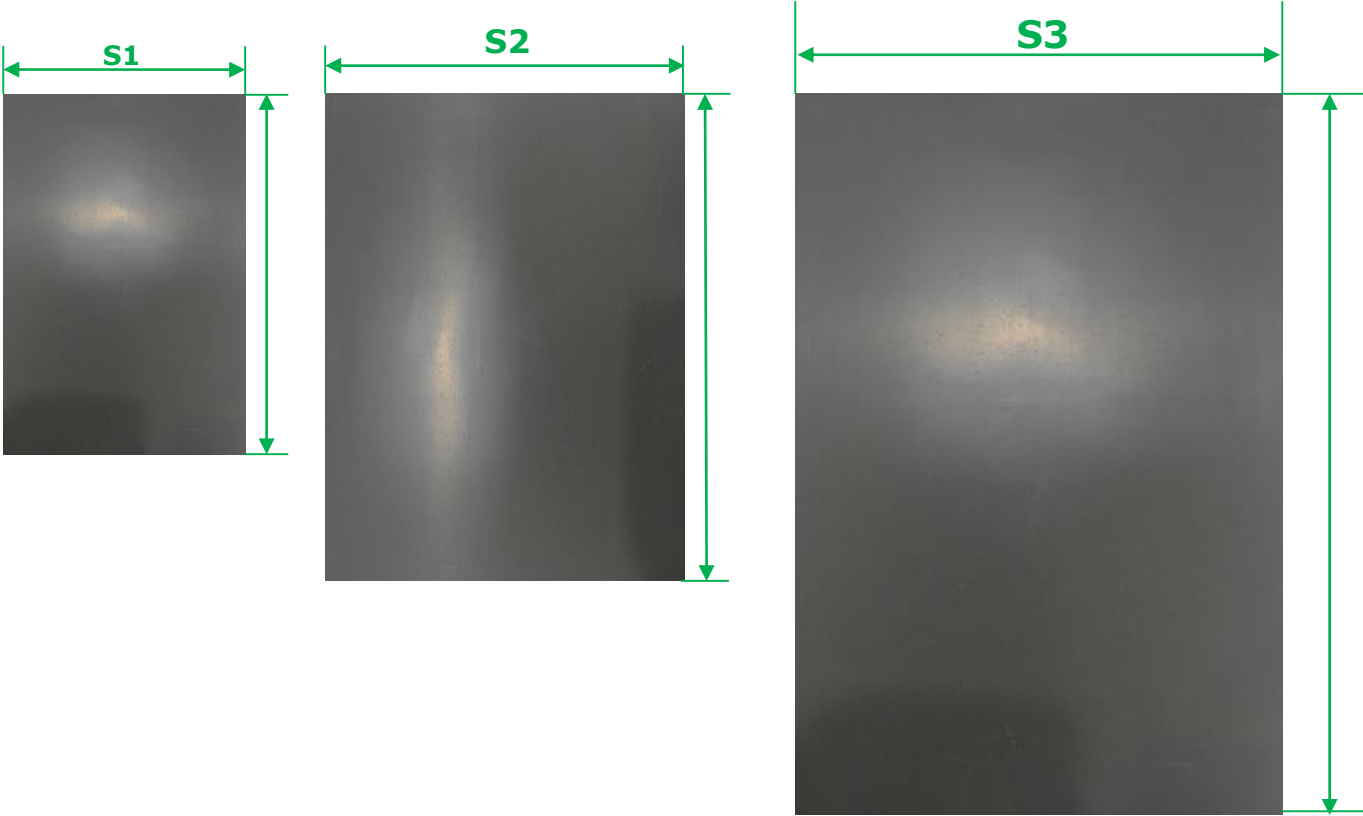
MT70
HT200

Thickness

75 : 0.75 mm
100 : 1.0 mm

Size

S1 : 105 X150 mm
S2 : 150 X210 mm
S3 : 210 X 300 mm (A4 Size)



■ Revision History

Revision	Date	Changes
Ver 1.0	2019-01-11	Releases Flexible Microwave Absorber Sheet
Ver 2.0	2019-07-26	Add products
Ver 2.1	2019-12-10	Revised spec.