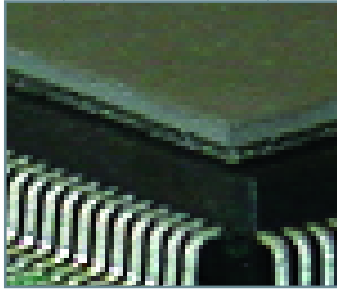
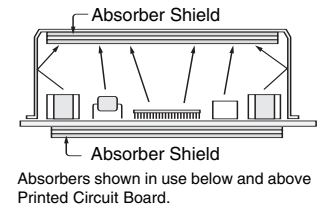
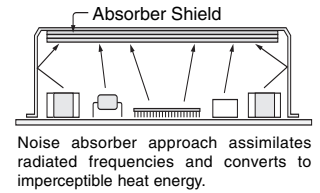
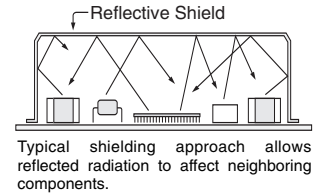


electromagnetic radio wave absorbers

Radio frequencies emanating from electronic components such as the printed circuit board sketch at the right are addressed in three ways: sometimes no shielding is required; a reflective shield in the form of a local cover for the components, or the entire electronic enclosure can be converted up as a shield; an absorber pad shield which soaks up the RF and converts it to imperceptible heat energy.

The latter Absorber Shield method deals with the unwanted RF energy right at the source and prevents re-radiation and reflection of the signals so that neighboring components are unaffected; also, second, third and fourth order harmonics are nullified or greatly minimized.

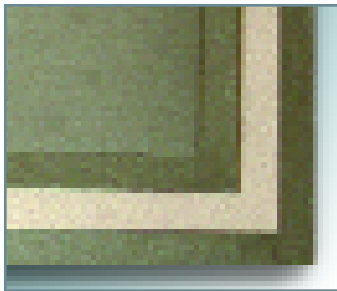


EMC wave absorber 100MHz to 5GHz: EA series

The EA series is a high frequency noise absorber in a range of formulations addressing 40MHz to 5GHz radiations from electronic components. It has a multi-layered structure of screened coating matrixes adjusted for discrete impedance matching to absorb electromagnetic waves at various peak frequencies depending on which of the seven different constructions is used.

applications:

PCB's, PCB components, electronic enclosures, shielded boxes, all microprocessor based electronic, EDP, telecom, scientific, medical, architectural shielding, RF test chambers, shielded facilities



standard series – 50 MHz to 1 GHz

Material Characteristic	Measure		
Frequency range	50 MHz - 1 GHz		
Peak frequency choices	100, 300, 400, 500 or 800 MHz		
Temperature range	-20°C to 100°C		
Flammability rating	UL94-V0		
Adhesive: temperature tack	0°F to 180°F	-18°C to 83°C	ASTM D-3575
shear	8.4 p.s.i. (stainless steel)		ASTM D-3575
	300+ hrs. @ 2 p.s.i. @ 22°C		ASTM D-3575
Dimensions: standard	15.75" W x 15.75" L x .011" max.	400,0 x 400,0 x 0,28	
maximum	3'-0" W x 65'-0" L x .011" max	1,0 x 20,0 M x 0,28	

PART No.	Width	Length*	Thickness	Frequency Range	Peak Frequency – Attenuation			
EA100	15.75	400,0	15.75	400,0	.002	0,05	-5 dB min. @ 50 MHz to 1 GHz	100 MHz @ -17.3 dB
EA300	15.75	400,0	15.75	400,0	.002	0,05	-5 dB min. @ 50 MHz to 1 GHz	300 MHz @ -17.6 dB
EA400	15.75	400,0	15.75	400,0	.002	0,05	-5 dB min. @ 50 MHz to 1 GHz	400 MHz @ -17.2 dB
EA500	15.75	400,0	15.75	400,0	.011	0,28	-5 dB min. @ 50 MHz to 1 GHz	500 MHz @ -17.8 dB
EA800	15.75	400,0	15.75	400,0	.008	0,20	-5 dB min. @ 50 MHz to 1 GHz	800 MHz @ -17.9 dB

*Available in standard rolls 15.75 400mm x 65'-0" 20M

extra wideband series – 40MHz to 5GHz @ 3.2GHz peak

This all-around universal wideband formula is available in a standard temperature type and a high temperature type (up to 200°C). Excellent performance from 40MHz to 5GHz.

Material Characteristic	Measure		
Frequency range	40 MHz - 5 GHz		
Peak frequency	3.2 GHz		
Temperature range	-20°C to 100°C and -10°C to 200°C (high temp)		
Flammability rating	UL94-V0		
Adhesive: standard temp. high temp. tack	0°F to 180°F	-18°C to 83°C	ASTM D-3575
shear	50°F to 312°F	10°C to 200°C	ASTM D-3575
	8.4 p.s.i. (stainless steel standard)		ASTM D-3575
	8.3 p.s.i. (stainless steel high temperature)		ASTM D-3575
	300+ hrs. @ 2 p.s.i. @ 22°C		ASTM D-3575
Dimensions: standard	8.25" W x 15.75" L x .004" max.	209,6 x 400,0 x 0,10	
maximum	3'-0" W x 65'-0" L x .004" max	1,0 x 20,0 M x 0,10	

PART No.	Width	Length*	Thickness	Frequency Range	Peak Frequency – Attenuation			
EA3200	8.25	209,6	15.75	400,0	.004	0,10	40 MHz to 5 GHz	3.2 GHz @ -31.3 dB
EA3200H (hi temp)	8.25	209,6	15.75	400,0	.004	0,10	40 MHz to 5 GHz	3.2 GHz @ -31.3 dB

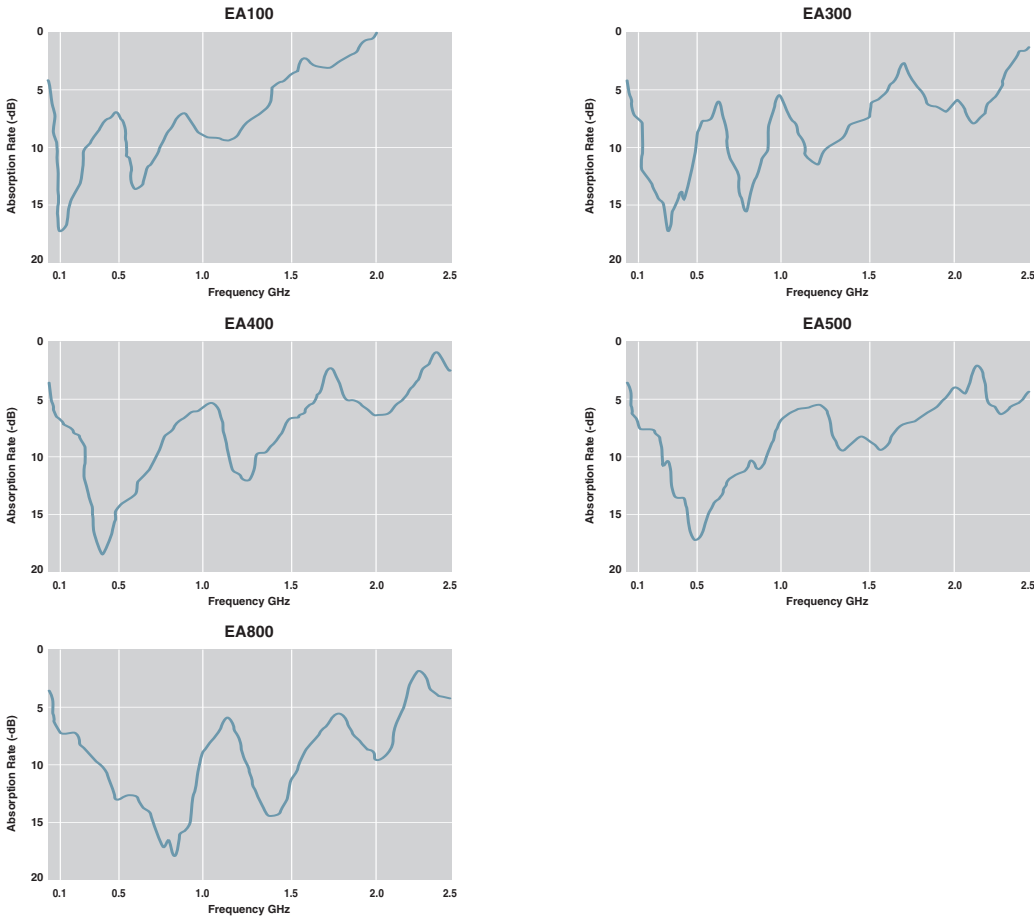
*Available in standard rolls 8.25" 210mm x 65'-0" 20M

typical absorption rate by part number

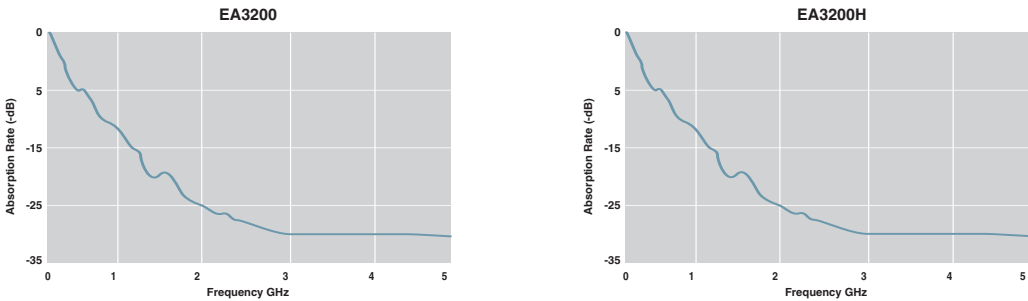
The following data displays the insertion loss characteristics of each formula of absorber material by part number. Of particular interest in engineering a given application is the peak absorption frequency and its correlation to the part number nomenclature; i.e., the peak frequency of the EA300 material is 300MHz. Of course, any of the formulations can be used for neighboring frequencies – in the case of EA300, a logical selection can be made for 200MHz or 400MHz situations.

Note that laminations of multiple part numbers will effectively yield a combination of results.

EMC standard series: typical absorption rate by part number



Extra wideband EMC series: typical absorption rate by part number



FerriShield[®] INC.
Interference Control Components

Mulberry Professional Plaza • 426 Mulberry Street, Suite 300 • Scranton, PA 18503
Tel: 570.961.5617 • Fax: 570.969.6274 • e-mail: info@ferrishield.com • www.ferrishield.com

ISO 9001:2000 registered

All dimensions in inches millimeters ±1.6%, or ±0.005" 0,13 mm minimum