

FERRITES

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- Cable Size by Part Number
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RF ABSORBERS & PCB SHIELDS

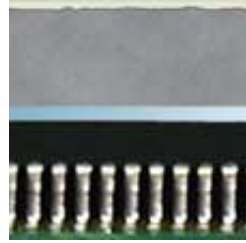
- EMC Noise Absorber Pads
- Microwave Noise Absorber Pads
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RFID SHIELDING

- Quotes and Ordering
- Find-A-Part by Part Number
- Distributors / Sales Reps
- EMC Industry Links
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EMC noise absorber pads

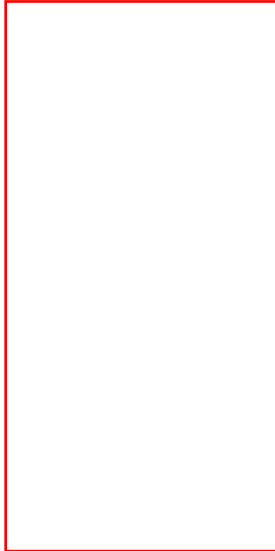
ELECTROMAGNETIC RADIO WAVE ABSORBERS



Radio frequencies emanating from electronic components such as the printed circuit board sketch at the left 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 fitted up as a shield using 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.

[click technical drawing for pdf file - Acrobat 4.0 req'd*](#)



**EMC WAVE ABSORBER
40 MHZ TO 5 GHZ**

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 electronics, EDP, telecom, scientific, medical, architectural shielding, RF test chambers, shielded facilities

**EXTRA WIDEBAND SERIES
40 MHZ TO 5 GHZ @ 3.2 GHZ PEAK**

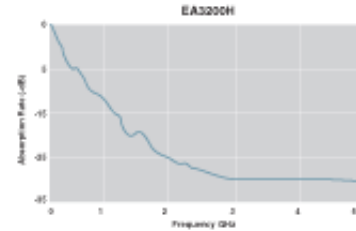
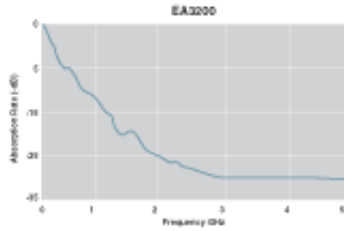
This all-around universal wideband formula is available in a standard temperature type and a high temperature type (up to 200°C). Excellent performance from 40MHz to 5GHz.

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.	0°F to 180°F -18°C to 83°C ASTM D-3575
high temp.	50°F to 312°F 10°C to 200°C ASTM D-3575
tack	8.4 p.s.i. (stainless steel standard) ASTM D-3575
shear	8.3 p.s.i. (stainless steel high temperature) ASTM D-3575
	300+ hrs. @ 2 p.s.i. @ 72°F ASTM D-3575
Dimensions: standard	8.25" W x 15.75" L x .004" max. 210.0 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	.005 0,13	40 MHz to 5 GHz	3.2 GHz @ -31.3 dB
EA3200H (hi temp)	8.25 209,6	15.75 400,0	.005 0,13	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



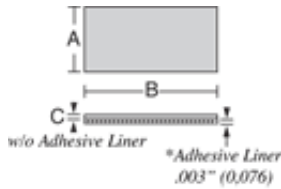
click on graph for larger image



SHIELDING PATCHES®

FOR PCB COMPONENTS AND WIRE CIRCUITS. A quick and easy way to gain 1 to 2 dB without invasive circuit changes. The EA3200H RF absorber matrix provides a measurable effect from 40MHz to 5GHz depending on frequency, existing circuit load, and area covered by the patch®. Peak performance is at 3.2GHz.

Installs simply by removing protective adhesive liner. Convenient 6.00" x 8.00" 152 x 203mm sheets with (24) patches per sheet.



PART No.	A	B	C	Frequency – Attenuation
EA3200H-SP12	1.00 25.4	1.937 49.2	.005 0.13	40MHz - 5GHz: peak @ 3.2GHz @ -31.2dB

* "H" signifies high temperature version. See specifications above.



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	0°F to 180°F -18°C to 83°C
tack	8.4 p.s.i. (stainless steel) ASTM D-3575
shear	300+ hrs. @ 2 p.s.i. @ 72°F 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 200 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

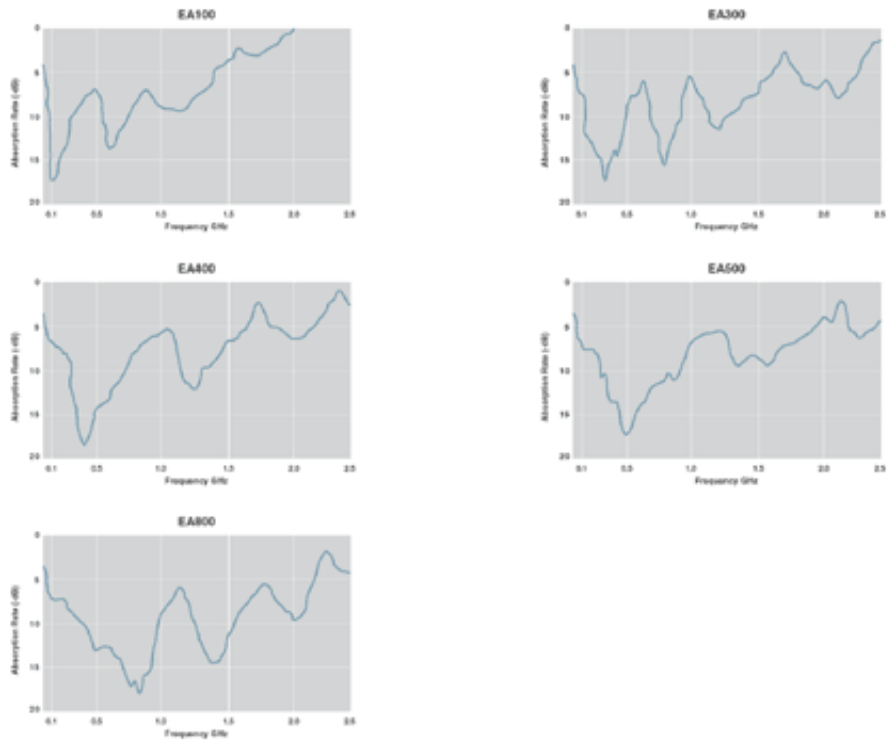
*Available in standard rolls 15.75 **400mm** x 65'-0" **20M**

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



[click on graph for larger image](#)

[click technical drawing for pdf file - Acrobat 4.0 req'd*](#)

All dimensions in inches *millimeters* $\pm 1.6\%$, or $\pm 0.005"$ *0,13 mm* minimum



* [click logo for Acrobat 4.0](#)



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MICROWAVE ABSORBERS](#)