

*Expanding Technology™*

## MICROGRID<sup>®</sup> EXPANDED METAL FOILS FOR EMI/RFI AND ESD APPLICATIONS

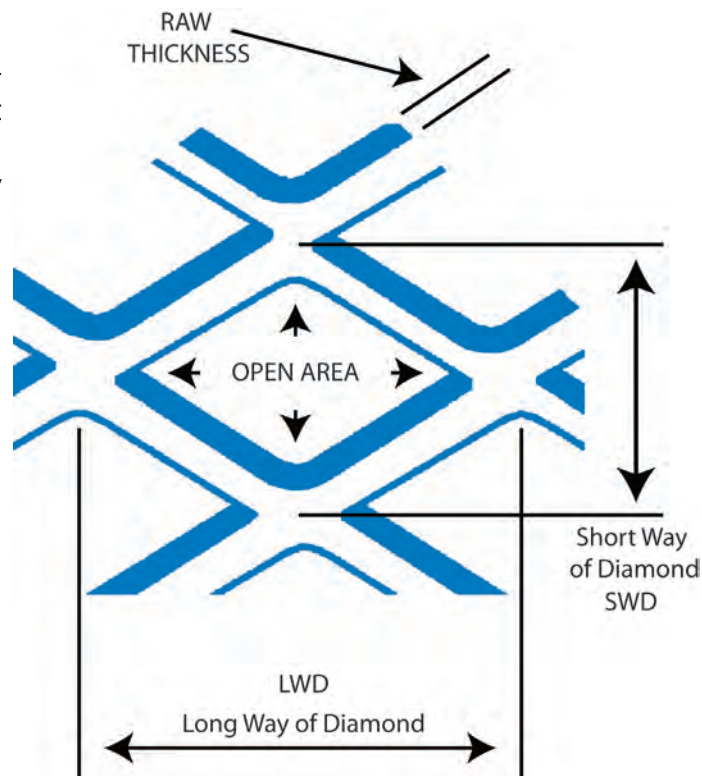
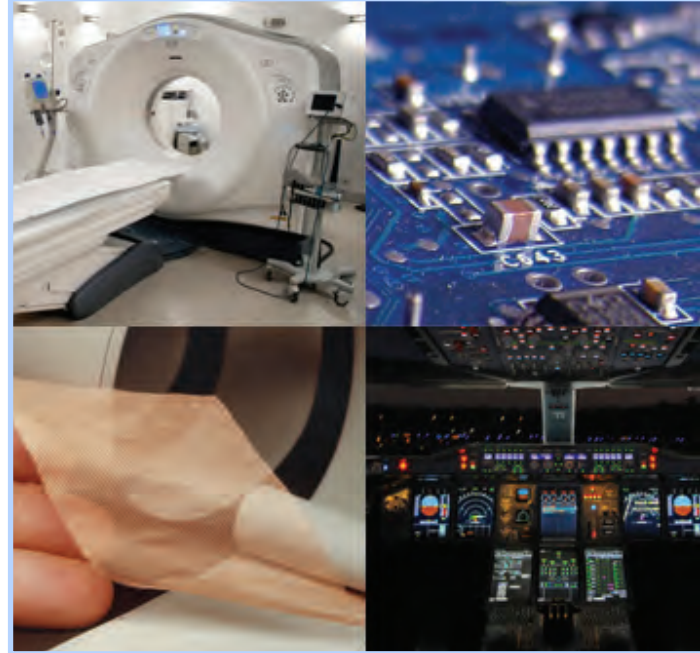
As electronic components become decreasingly smaller in size, engineers are forced with having to compress designs to include more electronics per circuit board surface area. As microelectronic components become closer together, the need for enhanced EMI/RFI shielding that can not only attenuate the EMI/RFI radiation but also provide essential ventilation to dissipate the buildup of heat. Utilizing precision expanded metal foils from Dexmet can provide the solution to both these challenging problems.

Dexmet's highly specialized expansion process provides the ability to produce a configuration to meet specific Shielding Effectiveness requirements as well as meet any physical or mechanical properties desired for an application. The Shielding Effectiveness is determined by the opening size and the corresponding open area of the product. By varying the opening and the strand thickness, which dictates the open area, the expanded material can be designed to meet specific attenuation (dB) requirements.

The thickness of the material has very little effect on the materials shielding capability but is essential when looking at the mechanical aspects of the application. Also, Dexmet can provide expanded products in various materials to meet any physical aspects, such as environmental compatibility and weight reduction, for any application.

### Applications & Advantages

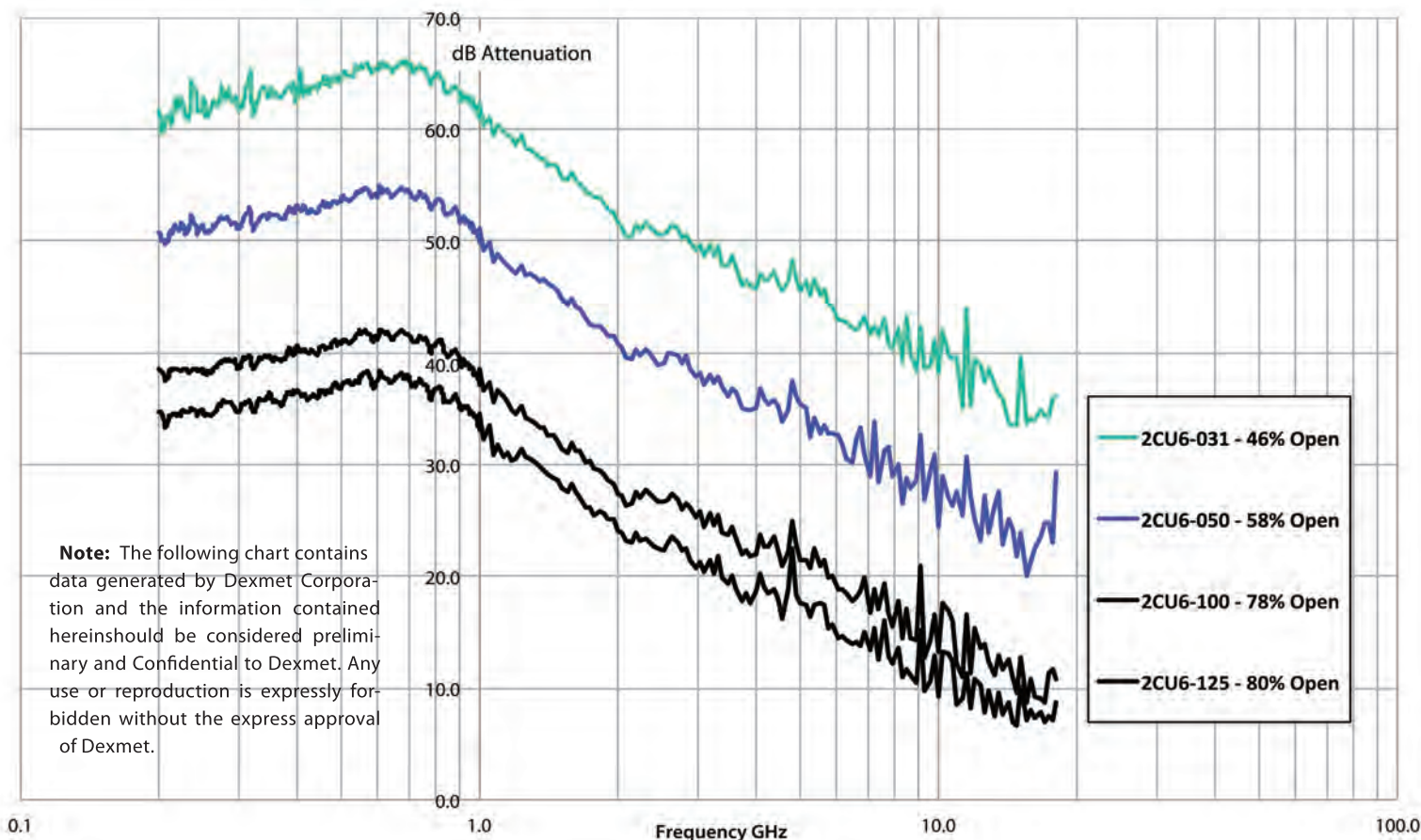
- ▲ Infinite Configurations To Meet Application Requirements For Shielding Effectiveness
- ▲ Above 40 dB, Over 99% Attenuation Of Electro-Magnetic (EMI/RFI) Radiation Can Be Achieved With An Open Area Product
- ▲ Light, Flexible and Strong
- ▲ Raw Material Thickness Down to .0015"
- ▲ Opening Sizes Down To .001" (25 Micron)
- ▲ Typical Materials: Copper, Aluminum, Nickel, Stainless Steel, All Other Materials Available Upon Request



**DEXMET CORPORATION**  
22 BARNES INDUSTRIAL ROAD SOUTH  
WALLINGFORD, CT 06492 • USA

VISIT OUR WEBSITE FOR MORE INFORMATION  
[WWW.DEXMET.COM](http://WWW.DEXMET.COM)  
+1-203-294-4440

### Four Configurations / Varying Open Area



## Shielding Requirements For Commercial Electronics Generally Range from 40 to 60 dB

### Standard Dexmet MicroGrid® Configurations

Tool Code	LWD (in)	SWD (in)		Hole Size (in)		Open Area		Width (in)	Raw Thickness (in)	
		Min	Max	Min	Max	Min	Max		Min	Max
020	0.020	0.0111	0.0133	0.001	0.007	32%	75%	8	0.001	0.002
025	0.025	0.0125	0.0154	0.0012	0.008	32%	75%	8	0.001	0.003
031	0.031	0.0182	0.0244	0.0015	0.01	32%	82%	12	0.001	0.005
040	0.040	0.0222	0.0323	0.002	0.017	24%	85%	12	0.0015	0.006
050	0.050	0.0244	0.0357	0.003	0.022	21%	89%	24	0.0015	0.008
060	0.060	0.0303	0.0435	0.003	0.027	20%	90%	24	0.0015	0.009
075	0.075	0.0303	0.0370	0.0033	0.03	15%	90%	38	0.0015	0.009
077	0.077	0.0333	0.0556	0.004	0.033	15%	90%	36	0.002	0.012
080	0.080	0.0370	0.0667	0.007	0.04	16%	90%	48	0.002	0.014
090	0.090	0.0455	0.0556	0.007	0.045	16%	90%	24	0.002	0.014
100	0.100	0.0400	0.0769	0.007	0.046	16%	90%	38	0.002	0.017
105	0.105	0.0500	0.0769	0.007	0.048	20%	90%	24	0.002	0.018
125	0.125	0.0500	0.1111	0.008	0.052	20%	90%	48	0.002	0.025