

# EMC Display Filters



## Steel Mesh with High Light Transmission

The stainless steel mesh 50 opi and 0.03 mm wire diameter has a very high light transmission of more than 88% in comparison. To transparent acrylic. The PCI standard of 100 openings per inch of  $\varnothing$  0.025 mm s/s wire, has a light transmission of approximately 80%.

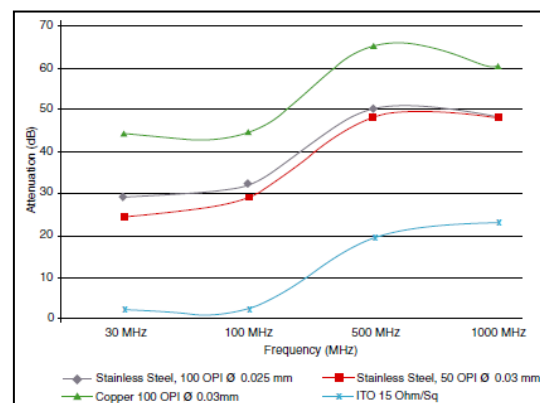
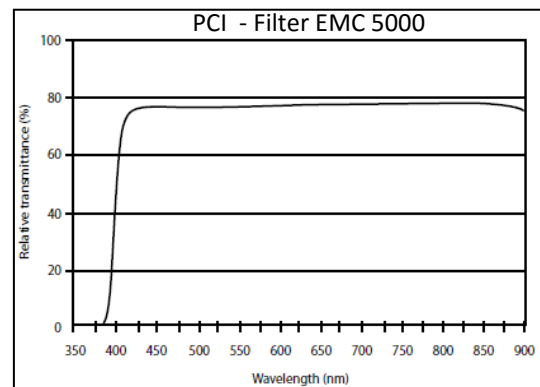
## EMC Display Filters down to 1.5 mm

The PCI EMC Display Filters, both copper and stainless steel meshes, are available from 1.5 - 2 - 2.5 - 3 and 4mm thickness and in dimensions up to 1500 x 1000 mm.

The filters are available with Mat-Finish, silver or nickel bus-bar at the entire perimeter of the display and silkscreened. Furthermore, it is possible to have the filters machined according to the customers' drawings, utilizing laser cutting and CNC milling techniques.

PCI is pleased to present our new line of Electro-magnetic Compatibility (EMC) Display Filters ensuring the optimum balance between light transmission and reducing Electromagnetic Interference (EMC) below levels that disrupt the proper operation of opto-electronic systems.

PCI offers a complete range of contrast enhancement filters embedded with a metal wire mesh for further attenuation of electromagnetic fields. PCI's EMC Display Filters can be produced in more than 40 transparent colors suitable to match the wavelength of your display. The result is optimal light transmission with excellent shielding effectiveness.



Electromagnetic shielding effectiveness for PCI Display Filters with embedded blackened mesh - EM - Field

Measuring Conditions: 200 x 300 mm open window area. Field: Low Impedance Electromagnetic Nearfield. Test setup is optimized to show differences between materials. ITO shielding performance under same test conditions is shown for comparison.

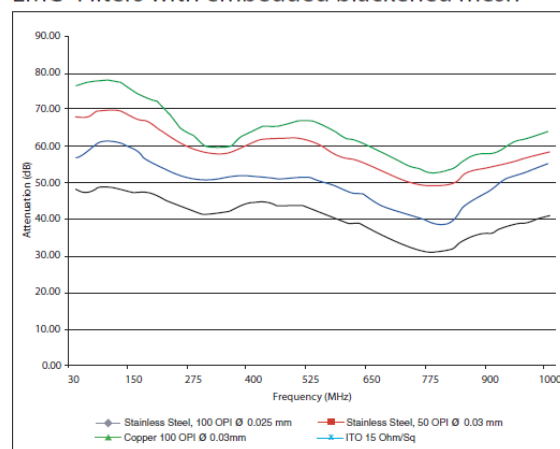
# EMC Display Filters



PCI'S EMC Display Filters include a metal wire mesh (typically stainless steel or copper) as an integral part of the acrylic filter so that unnecessary refraction surfaces are not created.

All EMC shielding is a compromise between the shielding effectiveness (how well the shield attenuates an electromagnetic field) and readability. Color EMC Display filters improve the contrast of your display by absorbing a percentage of the color that matches your display and by eliminating ambient light of all other colors. Furthermore, contrast enhancement filters increase the difference between the display's light level and reflected ambient light, thus making your displays more readable. The mesh is blackened in order to minimize reflection and at the same time increase the display's contrast. Blackening does not alter the shielding characteristics of the mesh.

EMC- Filters with embedded blackened mesh



Mesh	Surface	OPI	Wire diam. (mm)	Dimensions (mm)	Light Transmission	Embedded
Steel	Bright	100	0.025	width max. 1220 length upon request	79%	No*
Steel	Blackened	100	0.025	1570x1070	79%	Yes
Steel	Blackened	50	0.030	NA	88%	Yes
Steel	Bright	100	0.030	width max. 1220 length upon request	76%	No
Steel	Blackened	100	0.030	1570x1070	76%	No
Copper	Blackened	100	0.056	1220x1000**	61%	No
Copper	Blackened	100	0.030	1220x1000**	75%	Yes

\*Can be embedded upon request

\*\* Larger dimensions can be manufactured upon request

PCI's EMC Display Filters can be mounted at any angle between 0" to 45" to eliminate any interference that may occur if the mesh is located directly above the dots in the display (Moiré).

The high optical quality of the EMC Display Filters enables the use of filters for display applications with high requirements for attenuation.

