

FARADAY CAGE HIGH SPEED DATA SYSTEMS**GLOBAL EMC SYSTEM**

A broadband high performance faraday cage will not tolerate conductive shield transitions because the conductive intrusion will re-radiate the radiated Electromagnetic energies (RFI/EMI) - see YouTube video: <http://www.youtube.com/watch?v=zOufM4Nhec0>

Capacitive suppression has frequency limitations because they cannot operate in the frequency of the transmitted data by a factor of 10x data rate otherwise the filter will suppress the data signal itself. When the Faraday Cage data rate requirement becomes high speed the capacitive data filters are no longer suitable and 'over fibre' systems are by far the best option.

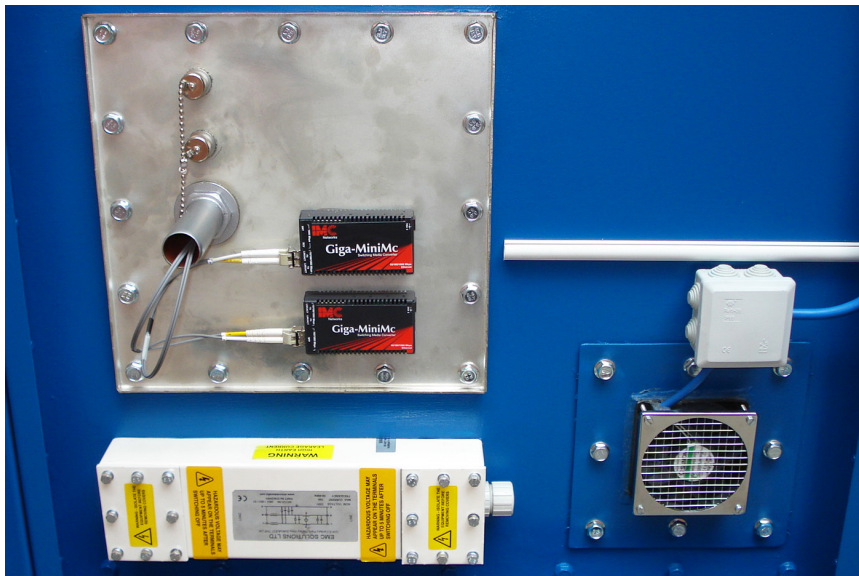
Active (powered) media converters are used to convert the data signal from copper-to-fibre and re-convert the signal back fibre-to-copper on the other side of the shield wall. The Faraday cage wall transitions are over fibre optic cables.

TRANSITION PROTOCOLS

Standard 'over fibre' faraday cage shield transition protocols are:

- » RS232
- » Giga bit Ethernet (various Gb speeds)
- » USB
- » Can Bus

Contact factory for other protocols.



Twin media converter installation, fibre cable entry via wave guide tube

