been installed deep within building infrastructure.

So, having been originally designed to support mission-critical military applications, MPE's EMI, EMP and TEMPEST filters apply liberal design margins to ensure maximum in-service reliability. MPE has also long supplied TEMPEST products which adhere to the onerous specifications of CESG (the Communications Electronics Security Group at GCHQ) and of the US NSA and more recently NATO SDIP-27 Standards.

Filters contain reactive and resistive elements which are all at risk of in-service failure. Although the electrical supply may be expected to be fused to cope with the possibility of a filter failing from a short circuit, it is the prospective loss of service that is of most concern to the data centre manager. The filter component at greatest risk of in-service failure is the capacitor. However, a filter such as MPE's incorporating capacitors manufactured from self-healing, high-reliability, metallised plastic film would generally be expected to remain in service for the intended lifetime of a building.

Low Insertion Loss up to Very High Frequencies

MPE manufactures power line filters which support the highest level of TEMPEST hardening, providing low insertion loss performance (dB against frequency in Hz) across the whole spectrum from Very Low Frequency (VLF) to above SHF. Hence the performance of MPE filters comfortably exceeds the industry benchmarks for mains supply applications – 100dB in a frequency range from 10kHz to 10GHz – and for individual pieces of equipment – 60dB from 100kHz to 1GHz. Housed in electroplated steel cases, TEMPEST filters from MPE are of compact size for easy, flexible, bulkhead or chassis mounting into the rack systems of data centres and include product options where low earth leakage is critical.

MPD, Ltd.