



MPE
Quality, Reliability, Performance

Company Bulletin

for EMC, EMP & TEMPEST Protection

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Examples of MPE filtered connectors with Radsok interface

Manufacturing military connectors with integral EMC suppression

Following on from our article in Issue 6 of the MPE newsletter reporting on the techniques MPE have developed which enable the capacitor to be wound into the backshell of high-power military connectors, MPE is now actively manufacturing prototype connectors that demonstrate this capability.

Many types of high-current connectors are available in the defence marketplace which provide mechanical compliance to MIL-DTL-38999 Series III on a variety of connector interface platforms. Products come from a wide range of established manufacturers – Amphenol, Glenair, ODU, Polamco and Smiths to name but a few.

So, whilst potentially EMC suppression can be provided by MPE on any of those connectors, to demonstrate the technique in practice MPE has manufactured a range using the Amphenol connector on the Radsok® platform. Radsok has been selected to demonstrate the concept, and manufacture is not restricted at all to that specific electrical contact interface.

The demonstration range includes both AC and DC feedthrough capacitors designed to interface to Amphenol Radsok connectors. The products are suitable for all high-performance applications requiring high reliability coupled with good high-frequency performance – such as mains power supplies for servers, communications base stations, switches and of course military vehicle platforms.

Defence vehicles, as previously reported, generally have separate power connectors and EMC filters, which together take up too much valuable space and add weight. Now integrating the required EMC suppression for the first time ever into high-power connectors themselves, the special MPE solution allows the capacitor to be wound into the backshell, where the greater the space for windings, the greater the EMC suppression that can be achieved.

Here is the link to download our datasheet titled [Plastic Film Feedthrough Capacitors with Radsok Interface](#)