



MPE
Quality, Reliability, Performance

Company Bulletin

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New EMP/EMI Gigabit Ethernet filter breaks the mould

MPE has launched a new and ground-breaking EMP/EMI Ethernet filter. It is a surge-protected, low-pass EMI filter, for use on Gigabit Ethernet (GbE) over-copper wiring in applications where optical fibre is not an option.

In computer networking, GbE is a term describing various technologies for transmitting Ethernet frames at a rate of a gigabit per second (1000 million bits per second), as defined by the IEEE 802.3 Standard 2008.

For use on 10/100/1000BASE-T twisted pair cabling of Cat-5, Cat-5e and Cat-6 up to 100 metres long, the new MPE filter incorporates an ultra-low capacitive surge arrester with fast response time. There are eight lines in total, comprising four differential pairs.

Unique technical features include matched common-mode chokes for rejection of differential noise, thereby improving signal symmetry. The EMP/EMI Ethernet filter is easily and conveniently bulkhead mounted on – for example – enclosures and EMC chamber doors, with connection via standard RJ45 sockets.

Comprehensive electrical, pulse and surge arrester, mechanical and environmental specifications for MPE's new EMP/EMI Ethernet filter are included with engineering drawings in the datasheet which you can download from [here](#)

