POWER LINE, CONTROL LINE & SIGNAL LINE FILTERS FOR 40GHz APPLICATIONS

MPE high performance filters all use a MPE proprietary design of feedthrough capacitor which will offer performance to well beyond 40GHz. To achieve full 100dB insertion loss/shielding performance at 40GHz, it is necessary to have an accurate mechanical construction of the filter and a suitable architectural and mechanical installation.

All MPE installation filters use the same MPE proprietary capacitor design so all have intrinsic performance to beyond 40GHz.

For most applications, 10GHz is the maximum frequency required which is why filters are normally specified as 100dB performance up to 10GHz in catalogues, with performance continuing beyond this but not to a specified level.

Where filters are required for 40GHz applications, MPE offer the same catalogue ranges of power, control and signal filters but carrying additional unique part code suffix letter "…/S" to the catalogue part number to support a room/chamber/facility shielding effectiveness performance of greater than 100dB at 40GHz. These "…/S" ranges of filters are subject to additional special manufacturing techniques and inspection performed by MPE during product manufacture to ensure that the design performance of 100dB at 40GHz is achieved and maintained.

These suffix "…/S" filters have been independently tested and demonstrated an insertion loss/shielding effectiveness performance in excess of 100dB at 40GHz.
Some filters used on certain installations have been independently tested up to 100GHz for shielding effectiveness, and demonstrated to still be offering good performance.

All other rating and dimension information is as specified in the relevant catalogue pages. The only difference in the "…/S" suffix filters is the additional manufacturing and testing procedures to ensure that 100dB performance at 40GHz is achieved.

To specify the 40Hz performance version of the catalogue filter, simply add suffix /S to the catalogue part number.