



The three bespoke EMC test chambers installed at Isotropic Systems in Reading

### High-performance solutions for satcoms innovator

NTD Shielding Services have installed three bespoke chamber solutions for Isotropic Systems at Reading, each incorporating MPE's high-performance EMC filters. With offices in the UK and USA, Isotropic Systems is a world-leading developer of transformational broadband terminal technologies named in the Lazard T100 Index.

A pioneer in the satellite communications market, Isotropic Systems has a host of ambitious new satellite constellations from SES, Inmarsat, SpaceX, OneWeb, Telesat and Amazon currently being developed and deployed in conjunction with GEO HTS assets. Central to these development programs, Isotropic required a high-performance in-house EMC testing capability as a critical resource.

NTD Shielding Services installed the three bespoke chambers between January and March 2020, with commissioning completed shortly afterwards. In support of these works MPE supplied a range of its high-performance filter solutions, including extended performance variants which provided high levels of attenuation through to 40GHz.

With headquarters at St Helens, Merseyside, UK, NTD are independent specialist providers of RF/EMC shielding solutions and technical consultancy, with over 25 years of accumulated rich expertise and experience in electronic test and measurement applications across the UK, USA and EMEA region.

The company is proud to have grown to become internationally recognised designers, manufacturers and suppliers of high-performance EMC, EMI, antenna and RF test chambers, Faraday cages, 5G solutions and EMC test and measurement systems. Test chamber upgrades, modifications and relocations are part and parcel of their services, as are overall project management and facility service and maintenance.

So the first chamber at Isotropic Systems measured 9.5m (L) x 4.5m (W) x 4.5m (H), featuring double access doors, access ramps and fire detection systems, with integral 16A and 32A extended performance filters from MPE. Measuring an equally impressive 10.5m (L) x 3.5m (W) x 3.5m (H), the second chamber was equipped with semi-automatic pneumatic doors, USB ports, a media conversion pack and fire detection systems. Again MPE's 32A filter solutions were utilised.

Completing the installation was a 40GHz ultra-performance, millimetre wave, mobile chamber, measuring 2.8m (L) x 1.3m (W) x 1.3m (H) incorporating MPE's DC filter solutions.

MPE's EMC filters were specified on all three applications to ensure the high performance of each EMC chamber and also the EMC compliance of each electrical system and its incoming lines. The power line filters manufactured by MPE for this application provide 100dB of insertion loss performance across a full frequency range to more than 40GHz.

For MPE's high-performance EMC solutions, see the product pages of the company website [www.mpe.co.uk/products](http://www.mpe.co.uk/products) or email [sales@mpe.co.uk](mailto:sales@mpe.co.uk) to seek advice from MPE's team of technical experts. For a wealth of information on NTD Shielding Services, go to [www.ntdshielding.co.uk](http://www.ntdshielding.co.uk) or email [sales@ntdshielding.co.uk](mailto:sales@ntdshielding.co.uk)

