



**MPE**  
Quality, Reliability, Performance

## Company Bulletin

for EMC, EMP & TEMPEST Protection

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Air-to-air refuelling by an Airbus A330 tanker of the Royal Australian Air Force (RAAF)



A Kappa Enhanced Vision System camera as mounted on the A330 refuelling tanker for in-flight surveillance



A range of MPE equipment filters

### Filters for Airbus A330 refuelling tanker

Via its Bronze-Certified territory distributor Electrade GmbH ([www.electrade.com](http://www.electrade.com)), MPE continues to be a trusted supplier to Kappa Optronics GmbH based at Gleichen in north-western Germany. Kappa have been developing and manufacturing application-specific, day-and-night-vision cameras for over 30 years. Kappa provide flexible solutions to meet a broad range of requirements in markets spanning defence, aviation, vehicles, microscopy, power distribution and factory automation.

So MPE is currently manufacturing filter solutions used on Kappa's Enhanced AAR Vision Systems deployed within various airframes including the state-of-the-art Airbus A330 multi-role tanker transport (MRTT) aircraft.

The Airbus A330 MRTT is a military derivative of the A330-200 wide-body, twin-engine jet airliner. It is designed as a dual-role, air-to-air refuelling transport aircraft and has been ordered and commissioned by the Royal Australian Air Force (RAAF), Royal Air Force (RAF), South Korean Air Force, United Arab Emirates Air Force, Royal Saudi Air Force and Republic of Singapore Air Force.

Initially MPE was approached to design a solution that would ensure the integrity of TEMPEST classified systems within the application, specifically within the power supply to this equipment. Alongside the required electrical performance parameters, since the equipment was to be rack-mounted within the airframe, size and weight were also significant factors and proved to be among the most challenging design elements for MPE.

Following design meetings facilitated by Electrade and held at Kappa's Gleichen facility, a development program was conducted at MPE, resulting in a two-line, 28V DC equipment filter solution being delivered by MPE. This solution provides full performance across a 100kHz to 1GHz range, whilst minimising the space envelope required for integration into the optical equipment rack. To date around 100 units have been delivered by MPE, with supply set to continue over the coming years.

In addition to this specialised custom equipment filter, MPE provides many other varied equipment filter solutions, details of which can be found on the product pages of MPE's website [www.mpe.co.uk/category/equipment-filters](http://www.mpe.co.uk/category/equipment-filters) or by downloading the product catalogue link via this link:

[www.mpe.co.uk/wp-content/uploads/2014/10/8318-MPE-Equipment-Filters.pdf](http://www.mpe.co.uk/wp-content/uploads/2014/10/8318-MPE-Equipment-Filters.pdf)