METIS AEROSYSTEMS AG

APEX EYE

ELECTRO-OPTICAL MISSILE WARNING SENSOR (MWS)
COMBINES ADVANCED IR DETECTION FOR HIGH-RESOLUTION AIRCRAFT PROTECTION.

The increasing sophistication of today's next-generation Manpads demands that every aircraft be protected against these threats, including light helicopters, light aircraft, UAVs, and others. Metis Aerosystems has developed the APEX EYE – a compact optical sensor to detect and counter these ever-evolving threats. As the smallest and lightest detection sensor, it allows an enhanced level of protection while increasing pilot and aircraft safety and providing optimal situational awareness. Designed for high performance, the APEX EYE electro-optical sensor employs state-of-the-art IR technology for increased range and angular precision in detecting multiple short and long range Manpads shots.

Optimally configured to work with any countermeasure dispensing system (flares) or to be integrated with a DIRCM system, specifically Metis Aerosystems's indigenous Ray-X DIRCM system, the APEX EYE automatically detects the presence of an approaching missile threat, sends out an alert, and enables immediate confirmation and tracking of the missile's trajectory, while providing pilots with increased situational awareness.

Unique APEX EYE Capabilities

- Unique integration of multiple IR detectors for accurate detection of multiple types of airborne threats
- Extremely high detection sensitivity
- Extended detection range
- Multiple target detection
- The smallest compact MWS
- Cost effective

Compatible with US Platforms

The APEX EYE sensor is mechanically designed to fit the standard US provision-for-round sensor housing installed today by many of the US OEMs' aircraft. This enables a simple and low-cost installation of the APEX EYE sensors with no mechanical or structural changes required.

Technical Specifications

Feature	Specification
Compact size	129 mm depth 86 mm height 86 mm width 120 mm front panel diameter
Power interface & power consumption	28V DC, MIL-STD 704B & RTCA-DO/160G compatible 40W maximum
Qualification Basis	MIL-STD & RTCA/DO-160
Weight	1.3 kg
FOV	1 sensor: 95° AZ X 118°EL 4 sensors: 360° AZ X 118°EL 6 sensors: 360° AZ X 180°EL
Multi-threat handling (simultaneously)	> 8
Communication interfaces	Ethernet & RS-422
Threat angular accuracy	Better than 0.5°
IMU	Embedded inside the sensor
DIRCM compatibility	Provided
Standards conpliance	RTCA/DO178 & 254

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