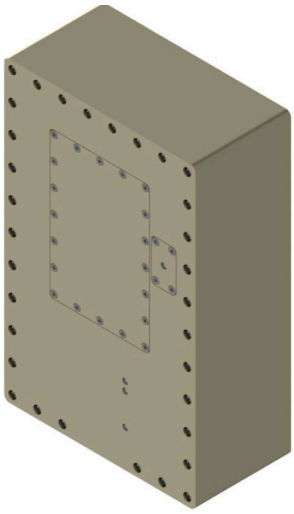
ACTIV POE
Power Over Ethernet EMI Filter



The ACTIV POE is the most advanced EMI filter available for Power Over Ethernet (PoE) applications, providing complete electromagnetic isolation for Ethernet and power signals — from 10 Mbps to 10 Gbps and up to 60W of DC power — without compromising network performance. Proprietary Digital Signal Processing (DSP) techniques ensure Ethernet signals are faithfully reproduced while rejecting interference from 250kHz to 40GHz at better than 100dB. Designed for secure commercial and military-grade environments, the ACTIV POE offers unmatched EMI suppression and rugged reliability.

Proprietary DSP Technology for Ultimate Filtering

- Faithfully reproduces Ethernet signals without introducing latency or distortion.
- Invisible to network negotiation and PoE detection.

Filter + Power in One Penetration

- Passes high-speed Ethernet and up to 60W of 802.3bt PoE power through one filter.
- Ideal for security cameras, access points, and networked sensors.

Built Tough for Demanding Applications

- Machined from solid aluminum for superior mechanical integrity and EMI shielding.
- Robust protection circuitry includes ESD and transient voltage suppressors, gas discharge tubes, and current limiters.
- Suitable for harsh military environments as well as climate-controlled installations.

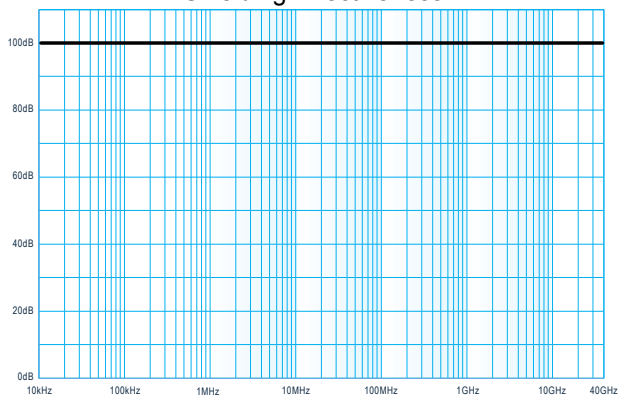
Universal Mounting System

- Mounts easily and securely on RF shielded enclosures with any wall thickness.
- Available in multiple standard penetration lengths (1”, 3”, 9”, 12”, or custom).
- Field-changeable penetrations allow for easy on-the-spot reconfiguration.

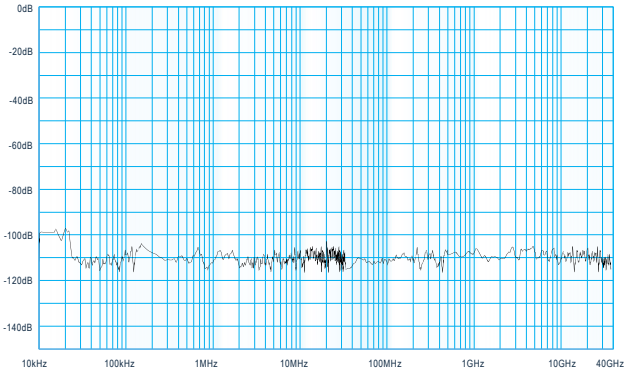
Suitable for ICD 705

- Engineered to meet the physical and technical security controls outlined in Intelligence Community Directive (ICD) 705, DoD and EMSEC Standards.
- Offers a trusted alternative to fiber optic penetrations for SCIF, SAPF, and TEMPEST applications.

Shielding Effectiveness



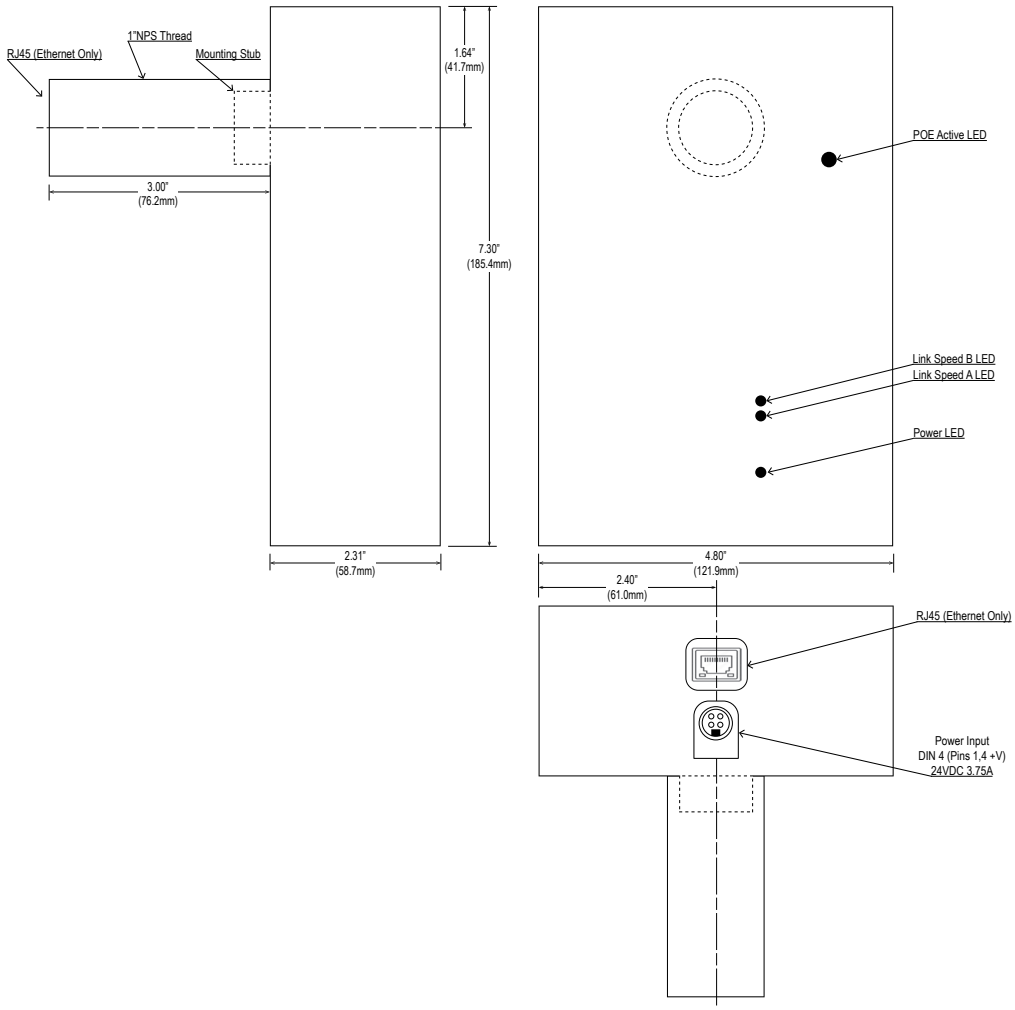
Insertion Loss



Technical Specifications

Filter Performance	Shielding Effectiveness	>100dB from 10kHz to 40GHz (typical) *Note: Tested without cables attached*
	Insertion Loss	>100dB from 250kHz to 40GHz (typical)
	Radiated and Conducted Emissions	Exceeds MIL-STD-461 CE102 Exceeds MIL-STD-461 RE102 Exceeds FCC Part 15 A, B Exceeds EN 55032 Class A, B
Network Performance	Auto MDI/MDI-X	Automatically detects and configures MDI or MDI-X.
	Auto Negotiation	Input and output automatically configure 10Mbps, 100Mbps, 1Gbps, 2.5Gbps, 5Gbps or 10Gbps
	Hot Pluggable	Can be plugged in/out without affecting filter or other links.
	Auto Link Restoration	Automatically re-establishes network link after a link loss.
	Communication Standards	IEEE802.3i 10Base-T (Ethernet) IEEE802.3u 100Base-T (Fast Ethernet) IEEE802.3ab 1000Base-T (Gigabit Ethernet) IEEE802.3an 10GBase-T (10G Ethernet) IEEE802.3bz 2.5GBase-T/5GBase-T (2.5G/5G Ethernet)
	Power Over Ethernet	802.3bt Type 3, 4PPoE or PoE++
	Maximum Power	600mA Per Pair 54VDC; 60 Watts 6 Power Class Levels
Environmental	Operating Temperature	0ºC - 40ºC (32ºF - 104ºF) Continuous
	Humidity	5% - 90% (non condensing)
Construction	Filter Housing	Aluminum w/Electroless Plated Nickel
	Dimensions	7.30” x 4.80” x 2.31”
	Mounting	1-20 UNEF-2A Mounting Stub for Threaded Penetration 1” NPS Threaded Penetration (1.32” Ø x 1”, 3”, 9”, 12” or Custom)
	Power Requirements	+24VDC / 3.75A Minimum; Marked “LPS” or “Class 2” only. Power Supply Pins 1/4 POS, 2/3 GND
	Connectors	RJ-45 8P8C Jack (x2) 4 Pin Mini-DIN Jack
	Indicator LEDs	Power – Red When Power is Present PoE Power – Red When PoE is Present Link Status (Input/Output) • 10Mbit - Red • 100Mbit - Green • 1Gbit – Dark Blue • 2.5Gbit - Yellow • 5Gbit - Purple • 10Gbit – Light Blue

Drawing



Connector Pinout

Pin	Ethernet (T568B)	
	Name	Description
1	BI_DA+	Bi-directional pair A +
2	BI_DA-	Bi-directional pair A –
3	BI_DB+	Bi-directional pair B +
4	BI_DC+	Bi-directional pair C +
5	BI_DC-	Bi-directional pair C –
6	BI_DB-	Bi-directional pair B –
7	BI_DD+	Bi-directional pair D +
8	BI_DD-	Bi-directional pair D -

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