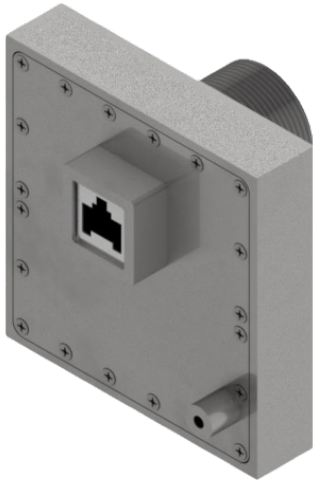# Pasif 1G
Ethernet/RJ45/CAT EMI Filter

The *Pasif 1G* is a passive EMI filter designed to pass Ethernet signals up to Gigabit speeds into electromagnetically shielded enclosures without compromising shielding integrity. Engineered for use in high-performance shielding environments, the filter uses cascading filter designs to suppress conducted and radiated emissions at >80dB up to 40GHz while remaining completely invisible to network performance. The *Pasif 1G* can also be used as a simple 8-line EMI filter for general power and signal applications (up to 500mA per line).

Passive Design for Maximum Flexibility

- No power required — install anywhere without dependence on external power infrastructure.
- Ideal for static or mobile secure environments, where simplicity and reliability are key.

Compact and Rugged Form Factor

- Approximate dimensions of 3.3" x 2.7" x 1.1" (excluding mounting hardware) is slightly larger than a pad of Post-It Notes.
- Housed in precision-machined solid aluminum for durability and mechanical integrity.
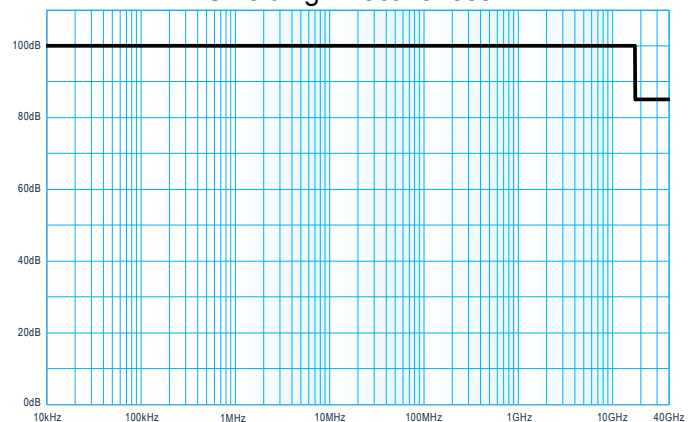
Universal Mounting System

- Designed to mount easily and securely on RF shielded enclosures with any wall thickness.Requires a simple, circular mounting hole for use with multiple standard penetration lengths (e.g., short, medium, long) to accommodate different wall types.
- Field-changeable penetrations allow for easy on-the-spot reconfiguration.
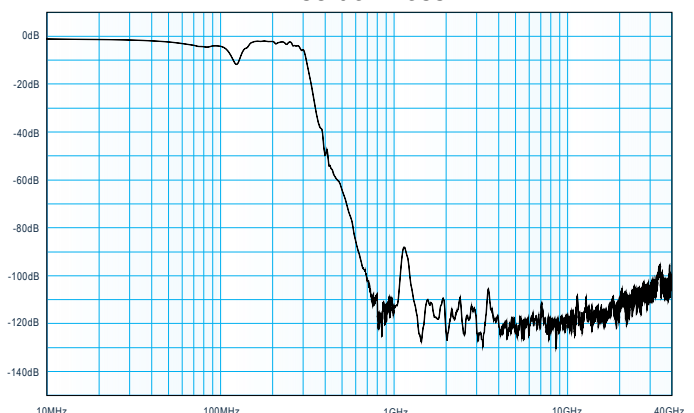
Suitable for ICD 705

- 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 >10GHz (typical) >85dB from 10GHz to 40GHz (typical) *Note: Tested without cables attached*
	Insertion Loss	>80dB from 550MHz to 40GHz (typical) >90dB from 700MHz to 30GHz (typical)
Electrical Performance	Lines	8 Lines
	Max Power	57VDC; 40VAC; 500mA Per Line
	Impedance	100Ω Line to Line 50Ω Line to Ground
Network Performance	Auto Negotiation Hot Pluggable Auto Link Restoration	Invisible to connected network devices. Does not interfere with network link negotiations or operations.
	Communication Standards	IEEE802.3i 10Base-T (Ethernet) IEEE802.3u 100Base-T (Fast Ethernet) IEEE802.3ab 1000Base-T (Gigabit Ethernet)
Environmental	Operating Temperature	0ºC - 40ºC (32ºF - 104ºF) Continuous
	Humidity	5% - 90% (non condensing)
Construction	Filter Housing	Aluminum w/Electroless Plated Nickel
	Dimensions	3.40" x 3.25" x 0.74"
	Mounting	1-20 UNEF-2A Mounting Stub for Threaded Penetration 1" NPS Threaded Penetration (1.32" Ø x 1", 3", 9", 12" or Custom)
	Connectors	RJ-45 8P8C Jack (x2)

Drawing

Visit Us Online At: **www.djmelectronics.com**

DJM Electronics
2907 Shelter Island Dr.
Suite 105-138
San Diego, CA 92106
866-DJM-ELEC