

DIGITAL 10GbE PoE ETHERNET RF ISOLATED INTERFACE

STEETHD10G



Overview

The STEETHD10G is a 10Gbps Ethernet RF Isolated Interface. It will auto-negotiate all BASE-T Ethernet data rates. These data rates include 10Mbps, 100Mbps, 1000Mbps, 2.5Gbps, 5Gbps, and 10Gbps. The filter is designed to pass these data rates while providing greater than 80dB RF isolation from 100MHz to 40GHz.

Applications

The primary application is for use in an RF Shielded Test Enclosure. The STEETHD10G allows up to 10Gbps data speed and 100 watts PoE to pass while maintaining an enclosure's RF isolation. The interface will also work well in RF Screen Room applications, or anywhere you need to pass Ethernet data and or PoE while maintaining RF isolation.

Features

- RJ45 8P8C Input and Output connectors.
- Single Flange Nut for mounting.
- RF Gasket Washers to provide high quality RF bond.
- Includes 12VDC 2 Amp 24 Watt Switching Power supply with 5 different world power plugs.
- Port Savers.
- Strain Relief Post.



STEETHD10G Interface Specifications

Power Requirements:

Voltage:	12VDC (10 o 15VDC).
Current:	1.5 Amps Maximum.
Watts:	18W Maximum.

Ports

Pipe Data Port (PS):	RJ-45, 8P8C Jack.
Non-Pipe Data Port (NPS)	RJ-45, 8P8C Jack.
Power Port:	2.1mm x 5.5mm DC Jack, Center Positive.

Indicators:

Power On:	Red.
Link Status, Pipe Side (PS):	Green.
Link Status, Non-pipe Side (NPS):	Green.
Mode B PoE:	Amber.
Mode A PoE:	Amber.

Compatible Data Protocols:

10BASE-T:	10Mbps, 802.3i.
100BASE-T:	100Mbps, 802.3u.
1000BASE-T:	1000Mbps, Gigabit, 802.3ab.
2.5GBASE-T:	2,500Mbps, 2.5Gbps, 802.3bz.
5GBASE-T:	5,000Mbps, 5Gbps, 802.3bz.
10GBASE-T:	10,000Mbps, 10Gbps, 802.3an.

Communication:

Non-Pipe Data Port:	Ethernet Connection to Outside of Enclosure.
Pipe Data Port:	Ethernet Connection to Inside of Enclosure.
Data Line Impedance:	100 Ohm Balanced, Typical..

RF Isolation (Conductive Insertion Loss All Lines):

DC to 100MHz:	Unspecified.
100MHz to 40GHz:	>80dB Minimum, >90dB typical.



PoE Power Delivery:

Mode of Operation:	Passive, pass-thru only.
Standard/Type:	802.3 af/at/bt, Type 1-4, PoE/PoE+/PoE++, pass-thru
PoE Input Voltage:	48 to 60VDC
PoE Pass-thru Current:	0.5 Amps Maximum per pair.
PoE Maximum Power:	100 Watts maximum Total.

Physical:

Dimensions:	4.5" H (114.3mm) x 3.125" W (79.38mm) x 1.19" D (30.2mm), Plus Pipe and Strain Relief.
Weight:	20oz (0.67kg)
Operating Temperature:	32 to 122 degrees F (0 to 50 degrees C)
Pipe Data:	1.0" Long, 1.25" - 18 Threaded Pipe with Flange Nut

Included Power Supply *:

Description:	AC-DC Switching Power Supply.
Ramsey Part Number:	PS105.
Voltage Output:	12VDC.
Output Current:	2.0 Amps
Voltage Input:	90 to 264VAC.
Input Current:	0.58 Amp.
Output Power Max:	24 Watts
Input Frequency:	47 to 63Hz
Output Connector:	2.1mm x 5.5mm x 9.5mm DC Power Plug
Input Connector:	Interchangeable blades, US, Europe, United Kingdom, Australia, and China.
Operating Temperature:	32 to 104 degrees F (0 to 40 degrees C).
Safety Approvals:	62368, UL/cUL, EN, J, AS/NZS, UKCA
RoHS:	Yes
Efficiency Level:	VI

2 Included Data Cables * :

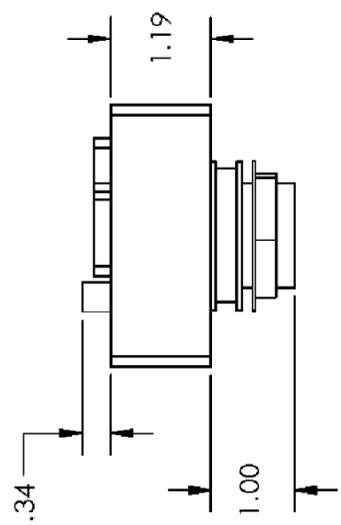
Description:	CAT7, 10Gbps, 600MHz.
Ramsey Part Number:	CABL45.
Cable:	CAT7, 28AWG(1P+AL-Foil)*4+DRAIN+B.
Connectors:	2x, 8P8C Plug.
Contact Resistance:	3 Ohms Maximum.
Insulation Resistance:	5M Ohm Minimum.
Length:	7 Feet.

*** Due to availability, included parts may be substituted without notice.**

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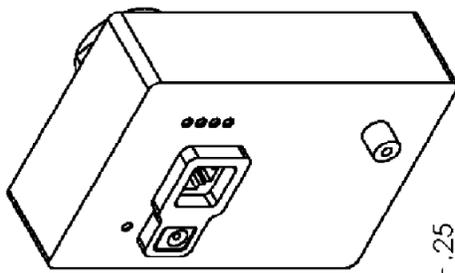
2

1

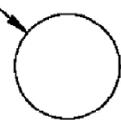


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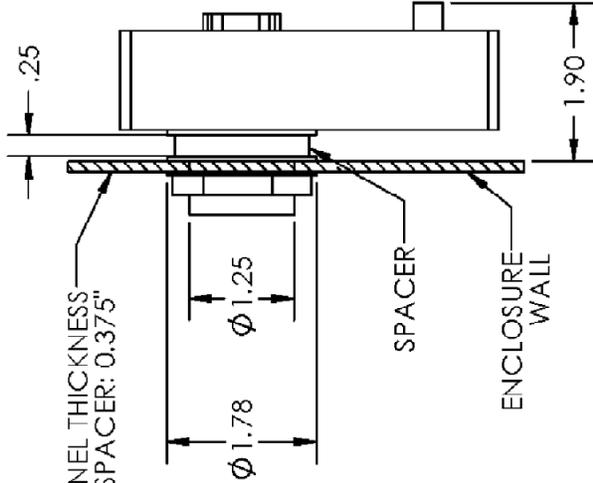
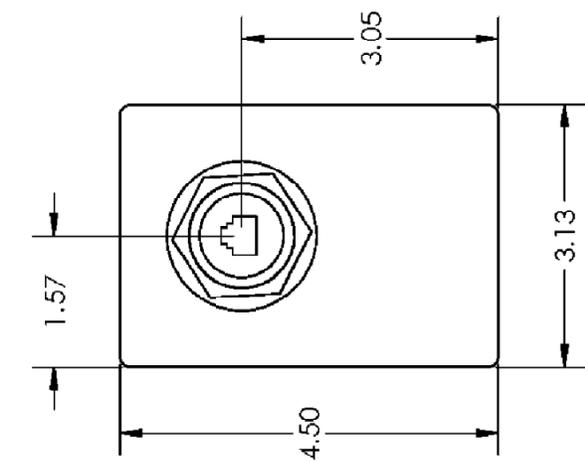
A



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RECOMMENDED
PANEL CUTOUT



MAX PANEL THICKNESS
WITH SPACER: 0.375"

SPACER

ENCLOSURE
WALL

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		FRAGILE COMPONENTS HANDLE WITH CARE		CHECKED: PWT		08/29/21		TITLE: STEETHD10G CUSTOMER DRWG	
		DO NOT SCALE DRAWING		DATE: 06/29/21		REV: A		SCALE: 1:2	
		MODEL NAME: STEETHD10G ASSEMBLY		SHEET DWG. NO. A		SHEET 1 OF 1			