



RAMSEY ELECTRONICS®

590 Fishers Station Drive

Victor, NY 14564

(585) 924-4560 (585) 924-4555 Fax

www.ramseytest.com

HIGH RESOLUTION VIDEO RF FILTERED INTERFACE VERSION 2.0 UHD/HDR

STEHR210



Overview:

The STEHR210 is a Single Channel Lab Grade High Resolution RF Isolated Interface. It is designed to HDMI 2.1 specifications which will allow the unit to pass High Resolution Video communications up to 48Gbps data speed. However at the time of this datasheet, the STEHR210 has only been tested to HDMI 2.0 specifications at 18Gbps data speed. HDMI 2.1 specifications are not guaranteed. The conductive insertion loss will be greater than 90dB within the 500MHz to 40GHz band. This makes the STEHR210 ideal for isolating even those low band LTE and 5G frequencies. The unit is fully backward compatible to HDMI 1.4.

Applications:

The primary application is for use in an RF Shielded Test Enclosure. The STEHR210 allows High Resolution Video data 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 HDMI data and maintain RF isolation.

Features:

HDMI Input and Output connectors.

Single Flange Nut for mounting.

Gasket Washers to provide a high quality RF bond.

Includes 12VDC 2 Amp 24 Watt Switching Power supply with 5 different world plugs.

Port Savers.

Strain Relief Post.



STEHR210 Interface Specifications

Power Requirements:

Voltage:	12VDC (10 - 15VDC)
Current:	500mA Maximum
Watts:	6W Maximum

Ports:

HDMI Input:	Type A (standard) ,19 Pin HDMI Female Connector, Mounting Pipe Side, Typically Inside of Enclosure
HDMI Output:	Type A (standard) ,19 Pin HDMI Female Connector, Label Side, Typically Outside of Enclosure
Power Connector:	2.1mm x 5.5mm DC Power Jack

Data Specifications:

Tested to:	HDMI 2.0, 18Gbs (guaranteed)
Designed to:	HDMI 2.1, 48Gbps (not guaranteed)
Maximum Resolution:	4096 x 2160p @ 60Hz (guaranteed)

Communication Specifications:

Video Pairs:	Unidirectional, pipe port is input, label port is output
Data Line, Clock, and Ethernet:	100 Ohm, Balanced Impedance
Ancillary HDMI Signaling and Control:	Bidirectional
Video Data and Clock:	0dB insertion loss
Ancillary Signals:	<1dB insertion loss

RF Isolation (Conductive Insertion Loss All Lines):

DC to 500MHz:	Unspecified
500MHz to 40GHz:	>90dB typical

Physical:

Dimensions:	3.96" H (100.6mm) x 3.15" W (80.0mm) x 0.85" D (21.6mm), Plus Pipe and Strain Relief
Weight:	13.6oz (0.431kg)
Operating Temperature:	32 to 122 degrees F (0 to 50 degrees C)
Pipe Data:	0.9" Long, 1.25" - 18 Threaded Pipe with Flange Nut
Data Port:	2 Type - 19 Pin Female HDMI Receptacles
Power Port:	2.1mm x 5.5mm DC Power Jack
Indicators:	Red LED, Power Indicator
Flange Nut Torque Spec:	20FT-LBS



Included Power Supply *:

Description:	AC-DC Switching Power Supply
Ramsey Part Number:	PS105
Voltage Input:	90 to 264VAC
Voltage Output:	12VDC
Input Current:	0.58 Amps
Output Current:	2 Amps
Output Power Max:	24 Watts
Input Frequency:	47 to 63Hz
Operating Temperature:	0 to 40 Degrees C
Input Connector:	Interchangeable Blades: US, Europe, United Kingdom, Australia, and China
Output Connector:	2.1mm x 5.5mm x 9.5mm DC Power Plug
Efficiency Level:	VI

2 Included Data Cables * :

Description:	Premium High Speed HDMI Interface Cable
Ramsey Part Number:	CABL52
Cable:	Rated for HDMI 2.0 (18Gbps)
Connectors:	2, Type A (Standard), 19 Pin HDMI Male Connectors
Length:	78.7 Inches (2 Meters)

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

