VHD110 HD-SDI Digital Video Optical Transceiver

1SDI+1RS485

1ch one way HD-SDI Video+ One reverse RS485 Data Digital Video Optical T/R

Feature:

- 1ch one way HD-SDI signal and 1 reverse RS485 control data over one single-core fiber
- Dual receiving unit design for receiver.
- Exquisite workmanship and high reliability.
- Re-Clock is optional
- 3G-SDI is optional
- Supporting pathological signals optional
- SNMP network management system is optional
- Lightning-proof design for all I/O ports

Brief

With patented design, VHD210 HD-SDI video optical products ensure the reliability while reducing its volume for easier installation. The receiver supports the same independent miniaturized dual output structure, and centralized power supply 2U rack mounting chassis or 4U with one output and two inputs. All receivers have dual outputs. Without 1 into 2 signal splitter, VHD210 can simplify system and save the cost for customers

VAD aims to produce international boutique and focus on providing high-quality products and service. Its superb quality and high durability serve for image monitoring system which has higher requirements.

Order Information

Model	Description
VHD110-T	Transmitter, SM, 1V+1RS485, 20km, stand-alone
VHD110-R	Receiver, SM,1V+1RS485, 20Km, 4U rack mode

Note:

1. Stand-alone by default. Suffix “-U” means rack mount which needs a 19’’ 2U/4U backend receive chassis.
2. Suffix “C”: Re-clock; “P”: support pathological signals optional; “G”: support 3G
3. The default transmission distance is 0- 20km. The maximum distance is 60km. 40/60/80/100Km for optional.

   Note: The distance is based on the link-loss less than 0.4dB/Km@ 1310nm, 0.25dB/Km@1550nm.

VHD110 Series HD-SDI Digital Video Optical Transceiver

Specifications

HD-SDI Video

Channels	Transmitter-1 input. Receiver-2 output
Signal Format	SMPTE292M/259M/297M/305M/310M/344M (SMPTE424M optional)
Signal rate	270Mbps~1.485Gbps (2.97Gbps optional)
Input / output level	0.8Vp-p±10%
Return loss	>15dB
Cable transmission (Belden 1694A)	0~150m (1.485Gbps)
Rise/fall time	< 270pS (1.485Gbps)
Jitter	< 0.2UI
Overshoot	< 10%
Connecter	BNC 75Ω

Data

Channel	One (reverse)
Data format	RS422，485 (2 or 4line) Manchester code
Data rate	DC-115Kbps (NRZ)
Operating Mode	Full Duplex or Half Duplex
BER	$<10^{-9}$ (max link loss)
Connector Type	Phoenix terminal

Optics

Operating wavelength	1310/1550nm or CWDM
Fiber type	SM or Multimode
Lp	12~30dB
Fiber	1
Connecter Type	LC (FC/SC/ST optional)
Distance	20~120 km

Power

Stand-alone	0.4A@5VDC
Power Consumption	3W

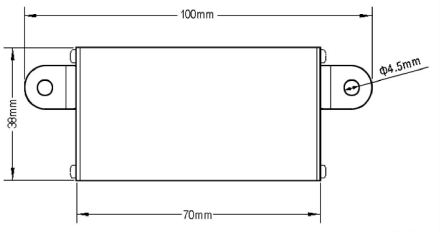
Physics

Stand-alone (mm)	30×38×70
Rack-mount (kg)	<0.2

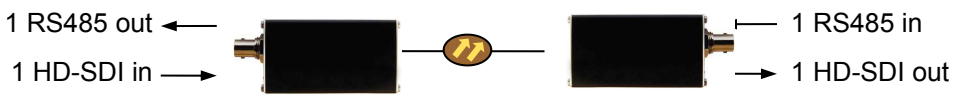
Environment

Operation	-40°C to +70°C
Storage	-40°C to +85°C
Operating humidity	< 95% (non-condensing)

Dimensional Drawings (mm)



Application Diagram



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