

## 8ch one way HD-SDI + 16 bi-direction data + Ethernet Digital Video Optical Transceiver

### Feature:

- ◆ 8ch HD-SDI, 16ch bi-direction data and Ethernet on one single-core fiber
- ◆ Support SMPTE292M/259M/297M/305M/310M/344M
- ◆ Support 270~1485Mbps
- ◆ Dual receiving unit design for receiver without 1x2 splitter
- ◆ Patented high-performance cooling dustproof structure design.
- ◆ High quality, reliability, and Performance /Cost
- ◆ Stand-alone products can be plugged into a 4U chassis with redundant power or a passive one. Easy for installation.
- ◆ Re-Clock
- ◆ 12VDC~24VAC Wide-range power supply design
- ◆ Compatible with SDI/ASI/HD-SDI
- ◆ Optional 3G-SDI
- ◆ Optional SNMP network management system
- ◆ Lightning-proof design for all I/O ports



### Brief

VHD300 series provides various functions for customers with innovative design. It provides a wide range of services covering video, audio, RS232, RS422/485, contact closure, phone, Aiphone, 10/100M Ethernet, B code, explosion-proof hotline, and E1 with the capacity of up to 16 point-to-point HD-SDI transmission on one single fiber.

With patented design, VHD300 series can support various functions while greatly reducing the volume for easier installation. The stand-alone module can be plugged into the 4U 19" chassis with redundant power or the 4U 19" passive chassis.

### Order Information:

Mode	Description
VHD300T-8V16D	Transmitter, SM, 8V+16D, 20Km, 4 slots, Stand-alone
VHD300R-8V16D	Receiver, SM, 8V+16D, 20Km, 4 slots, Stand-alone
VHD300T-8V16D-IP	Transmitter, SM, 8V+16D+IP, 4 slots, Stand-alone
VHD300R-8V16D-IP	Receiver, SM, 8V+16D+IP, 4 slots, Stand-alone

### Note:

1. Stand-alone by default. Suffix "-U" means rack-mount which needs a 19" 4U backend receive chassis.
2. D: optional bi-direction data; A: bi-direction audio; Suffix "-IP": 10/100M Ethernet channel.
3. The data channels can be customized to the combination of audio, RS232, RS422/485, contact closure, phone, aiphone, Ethernet, B code, or explosion-proof hotline, E1, etc.. For example, 2D+2A+4C. Please inquiry us the model.
4. 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.

# VHD300 series HD-SDI Digital Video Optical Transceiver

## Specifications

### HD-SDI Video

Channels	8
Signal Format	SMPTE292M/259M/297M/305M/310M/344M
Input / output level	0.8Vpp±10%
Reflection Loss	>15dB
Cable transmission (Belden 1694A)	0~150 米 (1.485Gbps)
Rise/fall time	< 270pS (1.485Gbps)
Jitter	< 0.2UI
Overshoot	< 10%
Connecter	BNC 75Ω

### Data

Channel	16 (maximum)
Data format	RS-232, RS422, 485 (2 or 4line) Manchester code
Data rate	DC-100Kbps (NRZ)
Operating Mode	Full Duplex or Half Duplex
BER	<10 <sup>-9</sup> (max link loss)
Connecter	Terminal Blocks

### Optical

Operating wavelength	1310/1550nm or CWDM
Fiber type	SM or MM
Link loss	12~30dB
Fiber	1
Connecter Type	LC (FC/SC/ST Optional)
Distance	20~60Km

### Audio

Channels	0~4 (optional)
Input / output level	Typical peak 1.0V,
Coding	24bit
Input / output impedance	600Ω (balance/ unbalance)
Bandwidth	10Hz~20kHz
SNR	>80dB
THD	<1%
Connecter	Terminal Blocks

### Ethernet

Rate	10/100Mbps
RJ45	UTP-100-ΩCAT5
Standard	IEEE802.3u, IEEE802.3x

### Power

Stand-alone	0.6A@12VDC
Rack-mount	0.6A@12VDC
Power Consumption	6W

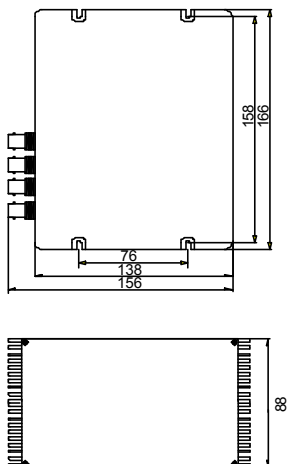
### Physics

Stand-alone (mm)	156D x 166W x 88H
Rack-mount (mm)	156D x 150W x 88H
Stand-alone(kg)	1.8
Rack-mount (kg)	1.2

### Environment

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

## Dimensional Drawings (mm)



## Application Diagram

