



CVBXW-HDSDI

Conversion Box – SDI to TMDS Fiber Wall Plate Type

Customer :

Specification for
Model : CVBXW-HDSDI

Revised : Feb. 11. 2011
Original Release Date : Dec. 01. 2009

OPHIT



Revision History

Version Number	Revision Date	Author	Description of Changes
1.0	Dec. 01. 2009	H.S PARK	Initial Version
1.1	Dec. 08. 2009	H.S PARK	Format convert
1.2	Dec. 15. 2009	H.S PARK	Spec revision
2.0	Feb. 11. 2011	J.H LEE	Electrical Specification / Case Dimension Modify



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1. General Description

CVBXW-HDSDI, is signal converter from SDI to TMDS optical signal, specially 1 fiber output to support maximum resolutions up to 1080p/60Hz.

This unit is enclosed by some box for wall mount.

- 1 SD/HD-SDI video input, 1 fiber output to deliver TMDS signal
- Supports 480P, 576P, 720p, 1080i at 50~60 rates, 1080p at 30Hz
- Automatically detects the input signal and transmit TMDS output signal
- No input signal is automatically Power-down mode(LD Turn-off)
- High Speed and long distance transmission by 1 channel SC type Multi-Mode Fiber
- DVI Specification 1.0 Compliant
- Product state define : Power ON : Green color LED ON

Input signal detect : Yellow color LED ON

2. General Specification

Input Format	SD/HD-SDI
Input Signal	SMPTE 259M-C (270Mbps) SMPTE 292M (1.485, 1.485/1.001Gbps)
Optical Output	SC type optical connector
Fiber	Multi-mode 50/125 or 62.5/125 μ m SC fiber
Transmission distance	1,650 ft(500M)
Connector	
Input	BNC
Output	SC Type Optical
Power	3.5 mm pitch 3 position terminal (Phoenix Contact)
General	
Dimensions	115(W) x 70(H) x 90.6(D) mm
Weight	--
Enclosure Color	Silver
Power	DC +12V, 1.5A



3. Absolute Maximum Ratings

Parameter	Rating
Storage temperature	-20°C ~ +70°C
Operating temperature	0°C ~ +50°C
Power Supply	-0.3 ~ +12 V
Relative Humidity	10 ~ 80 %
Lead solder temperature	380°C +/-30°C, 10 seconds

NOTICE

Stresses greater than those listed under “Absolute Maximum Ratings” may cause permanent damage to the device. This is a stress rating only and functional operation of the device at these or any other conditions above those indicated in the operations section for extended periods of time may affect reliability.

4. Electrical & Optical Specification

4.1 Electrical Specification

Parameter		Symbol	Min	Typ	Max	Units	Condition
P O W E R	Supply Voltage (Option External Power)	Vcc		+ 12		V	
	Supply Current	Icc		180		mA	Standby
				220			Working
	Power Dissipation	Po		2.16		W	Standby
				2.64			Working

4.2 Optical Specification

Parameter (per Channel)	Symbol	Min	Typ	Max	Units
Optical Power ¹	Pout	-3.0	0.0		dBm
Optical Modulation Amplitude		-6.25			dBm
Center Wavelength – Lane 0		771.5	778	784.5	nm
Center Wavelength – Lane 1		793.5	800	806.5	nm
Center Wavelength – Lane 2		818.5	825	831.5	nm
Center Wavelength – Lane 3		843.5	850	856.5	nm
Optical Rise/Fall Time ² (P1TX4B-SX4V-01)			200		Ps
RMS Spectral Width			0.5		nm

Notes:

Transmitter module of Model CVBXW-HSDI includes VCSEL (Vertical Surface Emitting Laser Diode) with 850 nm invisible laser radiation.

Do not view directly laser module of transmitter or the end of the other side of optical cable connected to transmitter with optical instrument.

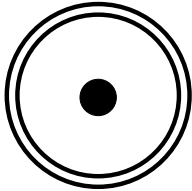
Transmitter module of CVBXW-HSDI is Class 1M Laser Product.

¹ Total power at measured at 4ch on the end of 2m optical cable (62.5µm fiber).

² Rise and fall times measured from 20 - 80%

4.3 Connector Pin Assignment

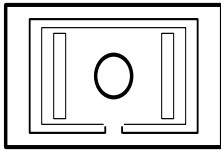
4.3.1 Input Connector



Female Connector
<SDI BNC type>

Pin	Signal Assignment
1	1 plus screen

4.3.2 Output Connector

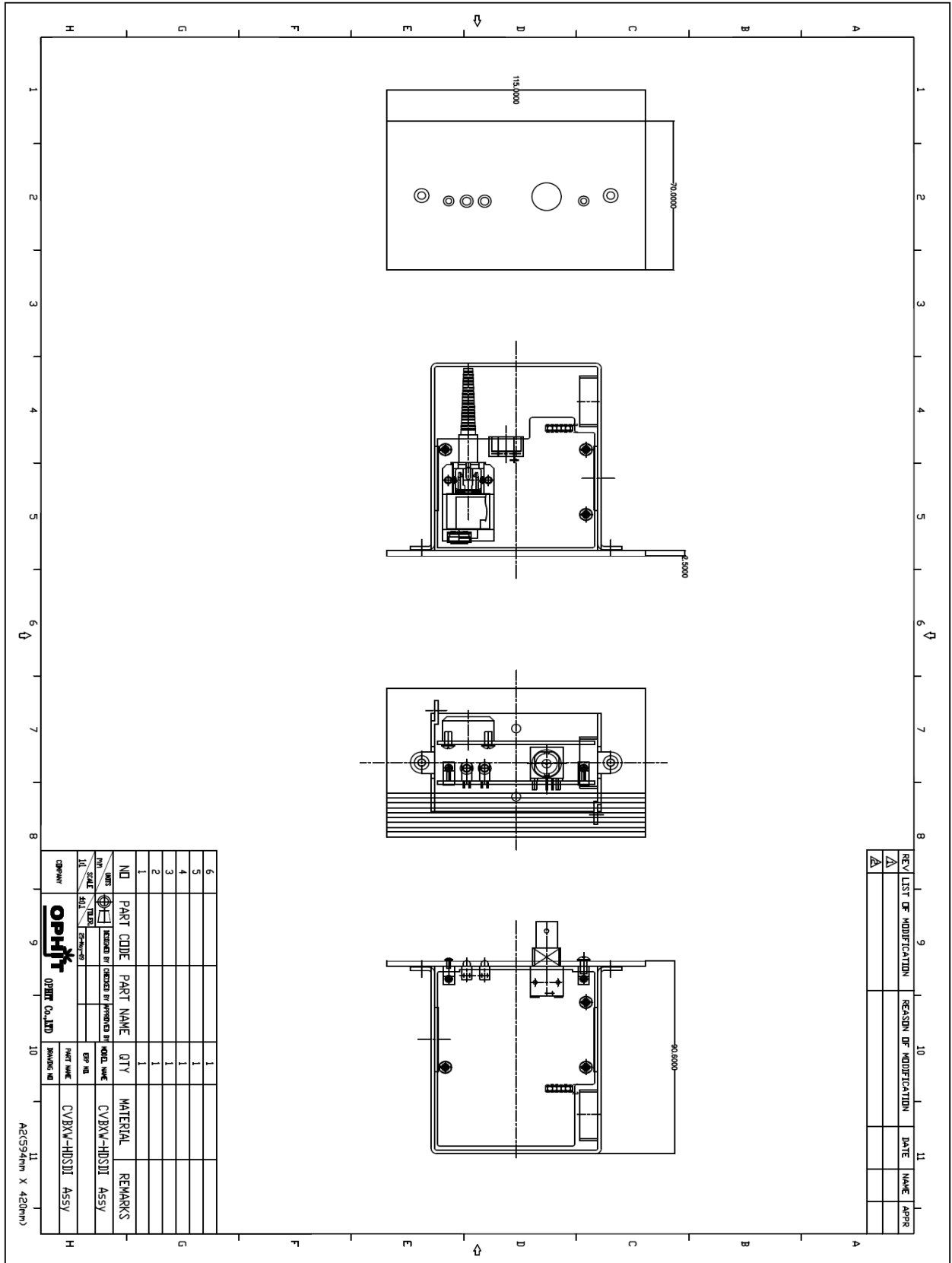


Female Connector
<SC Connector type>

Pin	Signal Assignment
1	T.M.D.S. optical output

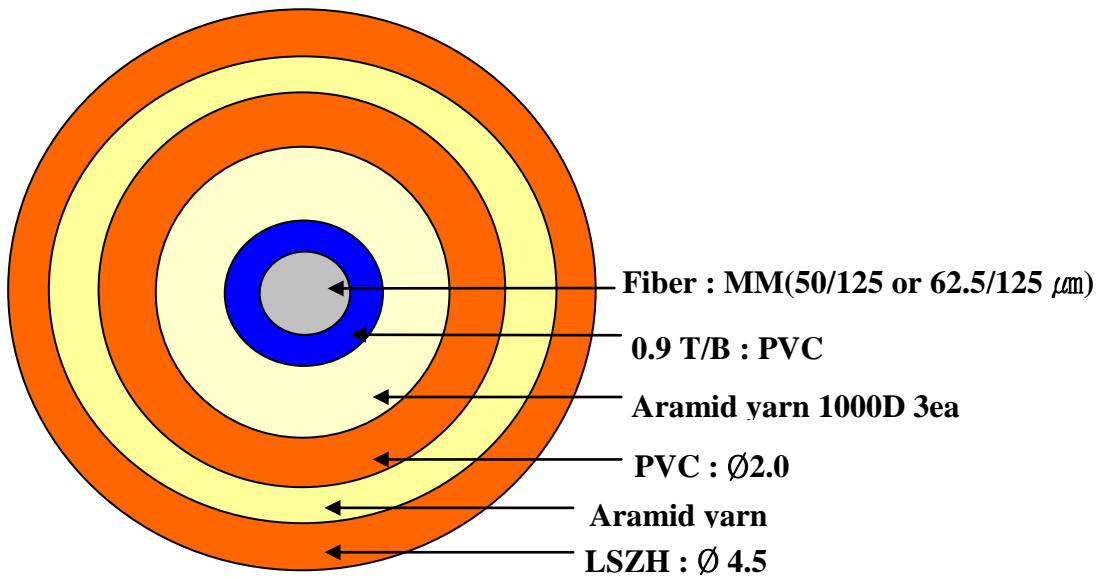
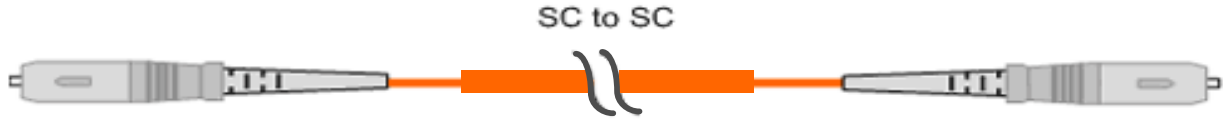
5. Mechanical Specification

5.1 Case Dimension



5.2 Optical Cable Information

- Outdoor Type Cable



6. RoHS**Certificate of Conformance RoHS**

Dear Customer,

On January 27, 2003, the European Parliament and the Administrative Council adopted Directive 2002/95/EC (RoHS) that concerns the “Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment”.

The parts currently delivered by **OPHIT CO., LTD.** are already free of lead (Pb), mercury (Hg), cadmium (Cd), hexavalent chromium (Cr 6), polybrominated biphenyl (PBB) and poly brominated diphenyl (PBDE).

This Certification of Conformance is to certify that the products listed below comply with RoHS Directive mentioned above:

- CVBXW-HSDSI

If you have any further questions regarding the RoHS compliance of parts delivered by **OPHIT CO., LTD.**, please do not hesitate to contact us at support@ophit.com.

Best regards,

JONG-KOOK MOON/CEO

OPHIT CO., LTD.