

# Specification for

**Model : SHC**

Revised : Apr. 20. 2012  
Original Release Date : May. 25. 2011

# OPHIT

## Revision History

Version Number	Revision Date	Author	Description of Changes
1.0	May. 25. 2011	J.H Lee	Initial Version
1.1	Dec. 13. 2011	J.H Lee	Support resolution modified
1.2	Mar. 15. 2012	J.H Lee	Support resolution added
1.3	Apr. 20. 2012	J.H Lee	Ordering Information Removed

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## 1. General Description

OPHIT 's SHC is perfect solution for converting SDI signal to HDMI signal.

It enables SDI compliant device to be connected to digital display with HDMI input.

- Converts SDI signal to HDMI signal
- Input : 1 x SDI / Output : 1 x HDMI, 1 SDI
- Compliant with HDMI1.3
- Support one SDI output for cascade function
- Input signal detection monitoring function (LED)

## 2. General Specification

<b>Input port</b>	SD/HD/3G-SDI
SDI Input Signal Resolution	525i, 625i, 720p @ 50, 59.94/60Hz, 1080i @ 50, 59.94/60Hz, 1080p @ 23.98/24, 25, 29.97/30, 50 and 59.94/60Hz
<b>Output port</b>	TMDS, SD/HD/3G-SDI
HDMI Output Signal Resolution	480i @ 60Hz, 720p @ 50, 59.94/60Hz, 1080i @ 50, 59.94/60Hz, 1080p @ 23.98/24, 25, 29.97/30, 50 and 59.94/60Hz
SDI Output Signal Resolution	525i, 625i, 720p @ 50, 59.94/60Hz, 1080i @ 50, 59.94/60Hz, 1080p @ 23.98/24, 25, 29.97/30, 50 and 59.94/60Hz
<b>Connector</b>	
Input	BNC
Output	HDMI, BNC
Power	DC-JACK 2.1 pie
<b>General</b>	
Dimensions	85x100x25mm (W x D x H)
Weight	250g
Enclosure Color	Navy
Power	DC +12V, 1.0 A

### 3. Absolute Maximum Ratings

Parameter	Rating
Storage temperature	-20°C ~ +70°C
Operating temperature	0°C ~ +50°C
Power Supply	-0.3 ~ 12.0 V
Relative Humidity	10 ~ 80 %
Lead-free solder temperature	260°C, 10 seconds

#### **NOTICE**

Stresses greater than those listed under “Absolute Maximum Ratings” may cause permanent damage to the device. These are stress ratings 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.

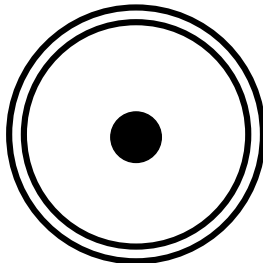
## 4. Electrical Specification

### 4.1 Electrical Specification

	Parameter	Symbol	Min	Typ	Max	Units	Condition
P O W E R	Supply Voltage	Vcc		+12.0		V	
	Supply Current	Icc		0.2		A	1080p/60Hz
	Power Dissipation	Po		2.4		W	1080p/60Hz
T M D S	Reference voltage for graphic signal	Vref	+3.1	+3.3	+3.5	V	
	Single-ended high level input voltage	VH	Vref-0.01		Vref+0.01	V	
	Single-ended low level input voltage	VL	Vref-0.6		Vref-0.4	V	
	Single-ended input swing voltage	Vswing	0.4		0.6	V	
	Single-ended standby input voltage		Vref-0.01		Vref+0.01	V	
	Data Output Load	RLD		50		Ohms	

### 4.2 Connector Pin Assignment

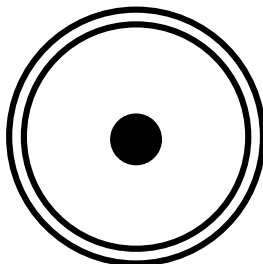
#### 4.2.1 Input port



Female Connector  
< BNC type >

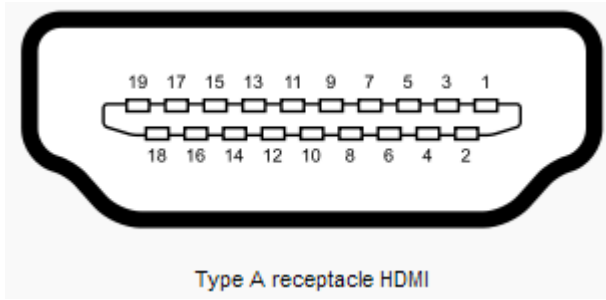
Pin	Signal Assignment
1	SMPTE Signal Input

#### 4.2.2 Output port



Female Connector  
< BNC type >

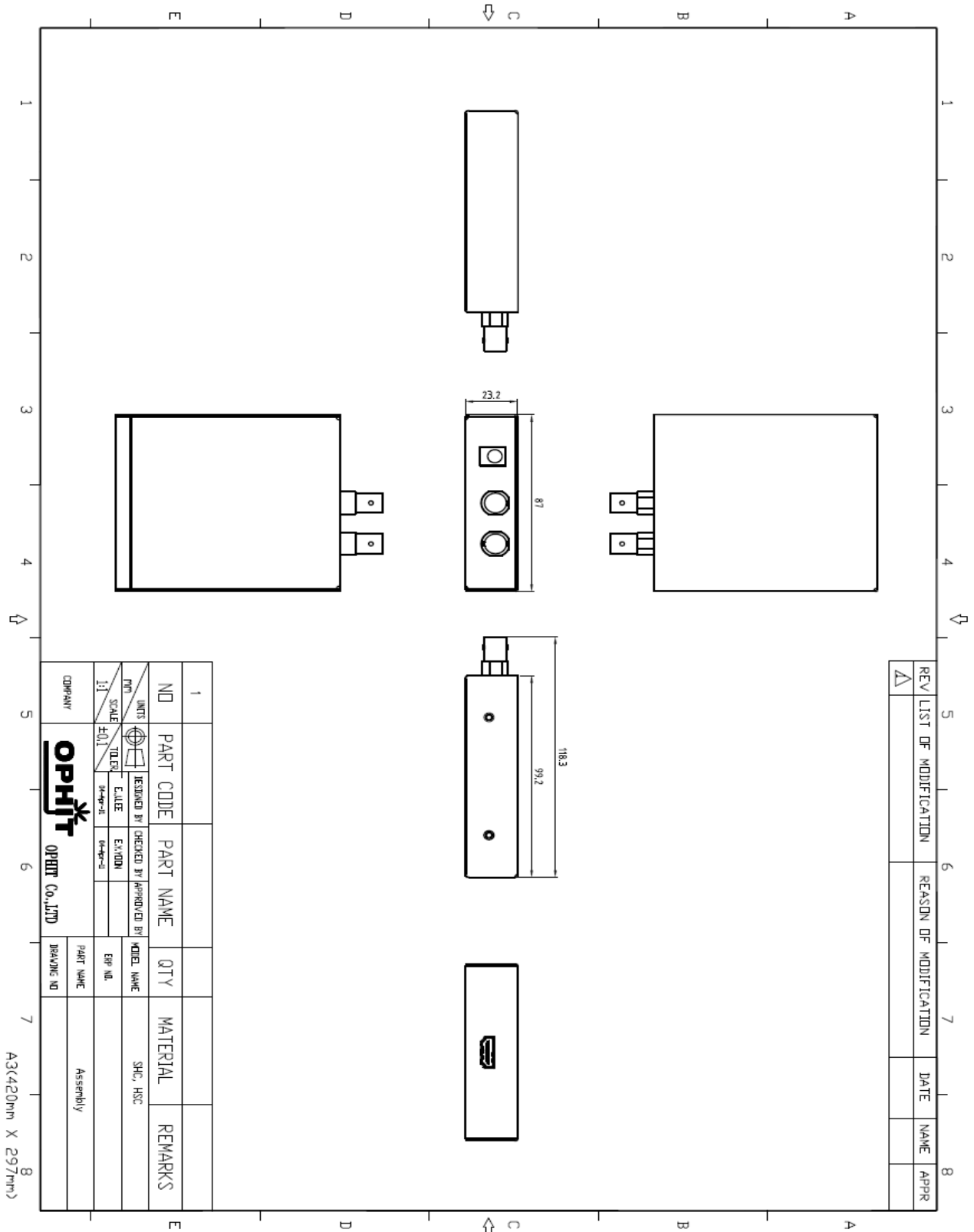
Pin	Signal Assignment
1	SMPTE Signal Output



Pin	Signal Assignment	Pin	Signal Assignment
1	T.M.D.S. Data 2+	2	T.M.D.S. Data 2 Shield
3	T.M.D.S. Data 2-	4	T.M.D.S. Data 1+
5	T.M.D.S. Data 1 Shield	6	T.M.D.S. Data 1-
7	T.M.D.S. Data 0+	8	T.M.D.S. Data 0 Shield
9	T.M.D.S. Data 0-	10	T.M.D.S. Clock+
11	T.M.D.S. Clock Shield	12	T.M.D.S. Clock-
13	CEC	14	Reserved (N. C on device)
15	SCL	16	SDA
17	DDC/CEC Ground	18	+5V Power
19	Hot Plug Detect		

## 5. Mechanical Specification

### 5.1 Case Dimension





## 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<sup>6+</sup>), polybrominated biphenyl (PBB) and polybrominated diphenyl (PBDE).

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

- SHC

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](mailto:support@ophit.com).

Best regards,

JONG-KOOK MOON/CEO

OPHIT CO., LTD.