## 2013



# Analogue Surveillance

http://www.tsict.com



#### **TSCB4301**

## **HD WDR 720p HDCCTV Box Camera with SDI Output**

 $Box,720p\ real\ time, H.264, WDR, day\ and\ night\ ICR, privacy\ zone\ mask, multishutter\ speed,\ without\ lens$ 



#### **Features**

- HD 720p HD-SDI CCTV camera
- HDV and SDV video out simultaneously
- Day and night-IR-cut removable control
- AES/ALC/BLC
- MIRROR/FLIP/Eclipse/XDR
- White balance-ATW/AWB/R-Y/R-B
- OSD
- Support HDV-I/F out
- YUV422(BT.1120) application
- Optic-Fiber out SMPTE 297
- HDMI
- HD-SDI coaxial connector

TSCB4301
PAL/NTSC
1/3-inch Panasonic 1.3-megapixel progressive CMOS
sensor
$1280 \times 720$
720p at 25/30 frames per second
HD-SDI (SMPTE 292M)
0.05 lux at AGC on/sense-up off/F1.2
128X normal camera
HD-SDI (without cable driver)
• YUV: 422 (optional)

26.23	ma on 1204
Model	TSCB4301
Analog Video Output	
Audio	Not applicable
Mechanical IR Cut	Automatically switches (switching lux level can be
Filter (ICR)	adjusted)/external
IR LED; Working	Compatible with infrared illuminator
Distance	
OSD Menu	OSD control (by RS-485 remote control or by coaxial
	control)
Day and Night	Color/black and white/auto/external
Mode	
Multi-Electronic	• Auto shutter: 1/50 (60) s to 1/120,000 s
Shutter	<ul> <li>Manual shutter: Off (1/50 (60) s), FL 1/100 (120)</li> </ul>
	s, 1/250 s, 1/500 s, 1/1,000 s, 1/2,500 s, 1/5,000 s,
	1/10,000 s, 1/30,000 s
Automatic Gain	0 dB to 42 dB
Control	
White Balance	ATW1/ATW2/AWC/manual/indoor/outdoor
WDR; BLC	High/middle/low/off; On/HLC/off
Fog Reduction	Auto/high/middle/low/off
Flickerless	Not applicable
Dynamic Noise	3D (high/middle/low)
Reduction	(Inglifithation tow)
Sense Up	Off/on ( $\times$ 2 to $\times$ 255)
	English/Simplified Chinese/Japanese
Language Image Setting	Negative/sharpness/mirror
Privacy Zone Mask	On/off, Zone Num, Zone Disp, H-POS, V-POS, H-Size, V-
Privacy Zone Mask	
I/O Connector	Size, Y Level, CR level, CB level
1/O Connector	• HD-SDI type
	HD-SDI coaxial connector (Power, Ctrl and HD-
	video are over coaxial cable)
	Optical fiber-out SMPTE 297
	• HDMI
	HD fiber connector for 2 wavelengths onto a
	single optical fiber
Automatic Iris;	DC; D4 IRIS jack
Connector	00.00
Lens	CS/C mount
Water Resistance	Not applicable
Maximum Breaking	Not applicable
Strength	
Power Supply;	12 V DC; 4.2 W
Consumption	
Operation; Storage	-10 °C to 50 °C (14 °F to 122 °F); -20 °C to 50 °C (-4 °F
Temperature	to 122 °F)
Operation; Storage	Maximum: RH 80 %; RH 90 %
Humidity	
Dimensions (W × H	51 mm × 51 mm × 100 mm (2.01 in × 2.01 in × 3.94 in)
×L)	
Weight	0.4 kg (0.88 lb)
Accessories Option	Lens: TSAL0130

<sup>\*</sup>Design and specifications are subject to change without prior notice.



#### **TSCB4602**

#### Full HD WDR 1080p 30 fps HDCCTV Box Camera

Box, 1080p real time, H.264, WDR, day and night ICR, privacy zone mask, multi shutter speed, without lens



#### **Features**

- Full HD 1080p HD-SDI CCTV camera
- HDV and SDV video out simultaneously
- WDR (long with short exposure tech)
- Day and night IR-cut removable control
- DNR/AGC/3DNR/BLC/HLC/XDR/MIRROR/FLIP
- White balance-ATW/AWB/R-Y/R-B
- OSD
- YUV422(BT.1120) Module application
- HD-SDI SMPTE 292M
- coaxial cable)
- HD fiber connector for 2 wavelengths onto a single optical fiber

- HD coaxal connector for (HD-video/RS-485/Power transmitting by a
- · Optic-fiber out supporting for SFP pathological pattern

Model	TSCB4602
Video System	PAL/NTSC
Image Sensor	1/3-inch Panasonic 1.3-megapixel progressive CMOS
	sensor
Resolution (H × V)	1920 × 1080
Frame Rates	1080p at 25/30 frames per second
SDI Standards	HD-SDI (SMPTE 292M)
Minimum	0.05 lux at AGC on/sense-up off/F1.2
Illumination	
Digital Wide	128X normal camera
Dynamic Range	
Digital Video	HD-SDI (without cable driver)
Output	• YUV: 422 (optional)

**TSCB4602** Analog Video Output CVBS Not applicable Audio **Mechanical IR Cut** Automatically switches (switching lux level can be adjusted)/external Filter (ICR) IR LED; Working Compatible with infrared illuminator Distance OSD Menu OSD control (by RS-485 remote control or by coaxial control) Color/black and white/auto/external Day and Night Mode **Multi-Electronic** • Auto shutter: 1/50 (60) s to 1/120,000 s Shutter • Manual shutter: Off (1/50 (60) s), FL 1/100 (120) s, 1/250 s, 1/500 s, 1/1,000 s, 1/2,500 s, 1/5,000 s, 1/10,000 s, 1/30,000 s Automatic Gain 0 dB to 42 dB Control White Balance ATW1/ATW2/AWC/manual/indoor/outdoor WDR; BLC High/middle/low/off; On/HLC/off Fog Reduction Auto/high/middle/low/off Flickerless Not applicable **Dynamic Noise** 3D (high/middle/low) Reduction Sense Up Off/on ( $\times$  2 to  $\times$  255) English/Simplified Chinese/Japanese Language Image Setting Negative/sharpness/mirror On/off, Zone Num, Zone Disp, H-POS, V-POS, H-Size, V Privacy Zone Mask Size, Y Level, CR level, CB level I/O Connector • HD-SDI type • HD-SDI coaxial connector (Power, Ctrl and HDvideo are over coaxial cable) • Optical fiber-out SMPTE 297 HDMI • HD Fiber connector for 2 wavelengths onto a single optical fiber **Automatic Iris**; DC; D4 IRIS jack Connector CS/C mount Lens Water Resistance Not applicable **Maximum Breaking** Not applicable Strength 12 V DC; 4.2 W Power Supply; Consumption Operation; Storage -10 °C to 50 °C (14 °F to 122 °F); -20 °C to 50 °C (-4 °F Temperature to 122 °F) Maximum: RH 80 %; RH 90 % **Operation**; Storage Humidity Dimensions (W × H  $51 \text{ mm} \times 51 \text{ mm} \times 100 \text{ mm} (2.01 \text{ in} \times 2.01 \text{ in} \times 3.94 \text{ in})$  $\times L$ ) Weight 0.4 kg (0.88 lb) **Accessories Option** Lens: TSAL0130

<sup>\*</sup>Design and specifications are subject to change without prior notice.



## Full HD WDR 1080p 30 fps HDCCTV Vandal Dome Camera

Outdoor dome, 1080p at 30 fps, H.264, WDR, day and night ICR, privacy zone mask, multi shutter speed, IP66, f=2.8 to 12 mm vari-focal auto iris lens, IR illuminator with distance up to 20 m  $\,$ 



#### **Features**

- Full HD 1080p HD-SDI CCTV camera
- $\bullet$  HDV and SDV video out simultaneously
- WDR(long with short exposure tech)
- Day and night IR-cut removable control
- DNR/AGC/3DNR/BLC/HLC/XDR/MIRROR/FLIP
- White balance-ATW/AWB/R-Y/R-B
- OSD
- Available HDV-I/F out as below
- YUV422 (BT.1120) Module application
- HD-SDI SMPTE 292M
- HD coaxal connector for (HD-video/RS-485/power transmitting by a coaxial cable)
- Optic-fiber out supporting for SFP pathological pattern
- HD fiber connector for 2 wavelengths onto a single optical fiber
- IP66

Model	TSCD1602
Video System	PAL/NTSC
Image Sensor	1/3-inch Panasonic 1.3-megapixel progressive CMOS
	sensor
Resolution (H × V)	1920 × 1080
Frame Rates	1080p at 25/30 frames per second
SDI Standards	HD-SDI (SMPTE 292M)
Minimum	0 lux
Illumination	

24.11	ma on 4 (04
Model	TSCD1602
Digital Wide	128X normal camera
Dynamic Range	- HD CDI ( '.4
Digital Video	HD-SDI (without cable driver)  NHW 422 ( - t - 1)
Output	• YUV: 422 (optional) CVBS
Analog Video	CARS
Output Audio	Not applicable
Mechanical IR Cut	Not applicable Automatically switches (switching lux level can be
Filter (ICR)	adjusted)/external
IR LED; Working	30 units (IR LEDs on < 2 lux, IR LEDs off > 5 lux); 10 m
Distance	to 20 m (32.8 ft to 65.6 ft)
OSD Menu	OSD control (by RS-485 remote control or by coaxial
OSD Wichu	control)
Day and Night	Color/black and white/auto/external
Mode	Color black and winter actor external
Multi-Electronic	• Auto shutter: 1/50 (60) s to 1/120,000 s
Shutter	• Manual shutter: Off (1/50 (60) s), FL 1/100 (120)
	s, 1/250 s, 1/500 s, 1/1,000 s, 1/2,500 s, 1/5,000 s,
	1/10,000 s, 1/30,000 s
Automatic Gain	0 dB to 42 dB
Control	
White Balance	ATW1/ATW2/AWC/manual/indoor/outdoor
WDR; BLC	High/middle/low/off; On/HLC/off
Fog Reduction	Auto/high/middle/low/off
Flickerless	Not applicable
Dynamic Noise	3D (high/middle/low)
Reduction	
Sense Up	Off/on ( $\times$ 2 to $\times$ 255)
Language	English/Simplified Chinese/Japanese
Image Setting	Negative/sharpness/mirror
Privacy Zone Mask	On/off, Zone Num, Zone Disp, H-POS, V-POS, H-Size, V-
T/O G	Size, Y Level, CR level, CB level
I/O Connector	• HD-SDI type
	HD-SDI coaxial connector (Power, Ctrl and HD- prides are associated to black).
	video are over coaxial cable)  Optical fiber-out SMPTE 297
	Optical fiber-out SWIF TE 297     HDMI
	HD fiber connector for 2 wavelengths onto a
	single optical fiber
Automatic Iris;	DC
Connector	
Lens	Built-in f = 2.8 to 12 mm DC auto iris lens
Water Resistance	IP66
Maximum Breaking	Not applicable
Strength	
Power Supply;	12 V DC; 9W
Consumption	
Operation; Storage	-10 °C to 50 °C (14 °F to 122 °F); -20 °C to 50 °C (-4 °F
Temperature	to 122 °F)
Operation; Storage	Maximum: RH 80 %; RH 90 %
Humidity	
Dimensions (Ø × H)	140 mm × 112 mm (5.51 in × 4.41 in)
Weight	0.55 kg (1.21 lb)
Accessories Option	-

<sup>\*</sup>Design and specifications are subject to change without prior notice.



#### Full HD WDR 1080p 60 fps HDCCTV Indoor Dome Camera with IR LED Illuminator

Indoor dome, 1080p at 60 fps, H.264, WDR, day and night ICR, privacy zone mask, multi shutter speed, with f=3 to 10 mm vari-focal auto iris lens



#### **Features**

- Full HD 1080p at 50/60 frames per second (3G-SDI) infrared camera
- 1/2.8-inch Sony 3-megapixel Progressive Exmor™ CMOS sensor
- 0.00 lux (IR LEDs on at 2 lux)
- Simultaneous video output: SDI/composite BNC
- OSD menu control
- OSD control (by RS-485 remote control or by coaxial control)
- Fog reduction & 2D noise reduction & sense up functions
- Shutter mode (auto/manual)
- Mechanical IR cut filter (ICR)
- RS-485 × 1, DI × 1, DO × 1

TSCD1704
PAL/NTSC selectable
1/2.8-inch Sony 3-megapixel Progressive Exmor™ CMOS
sensor
1920 × 1080
1080p at 50/60 frames per second (adjustable to 1080p at
25/30 frames per second, 1080i at 50/60 frames per
second)
3G-SDI (SMPTE 424M)
0.00 lux
512X normal camera (54 dB)
BNC connector (SDI) × 1

Model	TSCD1704
Analog Video	BNC connector (1.0 Vp-p composite, 75 ohm) × 1
0	BIVE connector (1.0 vp-p composite, 73 omin) x 1
Output	N-4 1: 1: -
Audio	Not applicable
Mechanical IR Cut	Automatically switches (black and white mode < 2 lux,
Filter (ICR)	Color mode > 5 lux)
IR LED; Working	30 units (IR LEDs on < 2 lux, IR LEDs off > 5 lux); 10 m
Distance	to 20 m (32.8 ft to 65.6 ft)
OSD Menu	OSD control (by RS-485 remote control or by coaxial
	control)
Day and Night	Color/black and white/auto
Mode	
Multi-Electronic	Auto shutter: Self defined auto shutter speed range
Shutter	programmable
	• Manual shutter: 1/50 (60) s, 1/100 (120) s, 1/150
	(180) s, 1/200 (240) s, 1/250 s, 1/300 s, 1/350 s,
	1/400 s, 1/450 s, 1/500 s, 1/600 s, 1/750 s, 1/1,000
	s, 1/2,000 s, 1/3,000 s, 1/4,000 s, 1/10,000 s
Automatic Gain	128 levels (adjustable level settings)
Control	
White Balance	ATW/AWB/manual/push lock/3200 K/6300 K
WDR; BLC	WDR/BLC/off
Fog Reduction	16 levels (0 to 15)
Flickerless	PAL 50 Hz/NTSC 60 Hz/off
Dynamic Noise	2D
Reduction	
Sense Up	On (2 to 6X)/off
Language	English/Japanese, Traditional Chinese, Simplified Chinese
	(option not changable)
Image Setting	Sharpness/contrast/saturation/hue/mirror
Privacy Zone Mask	On/off (16 zones programmable, Mosaic)
I/O Connector	• RS-485 (Pelco-D/P) × 1
	• DI × 1
	• DO × 1
Automatic Iris;	DC
Connector	-
Lens	Built-in f = 3 to 10 mm DC auto iris lens
Water Resistance	Not applicable
Maximum Breaking	Not applicable
Strength	11
Power Supply;	12 V DC; 9 W
Consumption	
Operation; Storage	-10 °C to 50 °C (14 °F to 122 °F); -20 °C to 50 °C (-4 °F
Temperature	to 122 °F)
Operation; Storage	Maximum: RH 80 %; RH 90 %
Humidity	
Dimensions (Ø × H)	140 mm × 112 mm (5.51 in × 4.41 in)
Weight	0.55 kg (1.21 lb)
Accessories Option	0.55 Kg (1.21 10)
Accessories Option	-

<sup>\*</sup>Design and specifications are subject to change without prior notice.



#### Full HD WDR 1080p 60 fps HDCCTV Weather Proof Dome Camera with IR LED Illuminator

Outdoor dome, 1080p at 60 fps, H.264, WDR, day and night ICR, privacy zone mask, multi shutter speed, IP66, with f=3 to 10 mm vari-focal auto iris lens, IR illuminator with distance up to 20 m



#### **Features**

- Full HD 1080p at 50/60 frames per second (3G-SDI) infrared camera
- 1/2.8-inch Sony 3-megapixel Progressive Exmor™ CMOS sensor
- 0.00 lux (IR LEDs on at 2 lux)
- Simultaneous video output: SDI/composite BNC
- OSD menu control
- OSD control (by RS-485 remote control or by coaxial control)
- Fog reduction & 2D noise reduction & sense up functions
- Shutter mode (auto/manual)
- Mechanical IR cut filter (ICR)
- RS-485  $\times$  1, DI  $\times$  1, DO  $\times$  1

Model	TSCD1706
Video System	PAL/NTSC selectable
Image Sensor	1/2.8-inch Sony 3-megapixel Progressive Exmor™ CMOS
	sensor
Resolution (H × V)	1920 × 1080
Frame Rates	1080p at 50/60 frames per second (adjustable to 1080p at
	25/30 frames per second, 1080i at 50/60 frames per
	second)
SDI Standards	3G-SDI (SMPTE 424M)
Minimum	0.00 lux
Illumination	
Digital Wide	512X normal camera (54 dB)
Dynamic Range	
Digital Video	BNC connector (SDI) × 1
I	I .

**TSCD1706** Output Analog Video BNC connector (1.0 Vp-p composite, 75 ohm)  $\times$  1 Output Audio Not applicable Mechanical IR Cut Automatically switches (black and white mode < 2 lux, Filter (ICR) Color mode > 5 lux) IR LED; Working 30 units (IR LEDs on < 2 lux, IR LEDs off > 5 lux); 10 m to 20 m (32.8 ft to 65.6 ft) Distance OSD control (by RS-485 remote control or by coaxial **OSD Menu** control) Day and Night Color/black and white/auto Mode Multi-Electronic • Auto shutter: Self de?ned auto shutter speed range Shutter programmable • Manual shutter: 1/50 (60) s, 1/100 (120) s, 1/150 (180) s, 1/200 (240) s, 1/250 s, 1/300 s, 1/350 s, 1/400 s, 1/450 s, 1/500 s, 1/600 s, 1/750 s, 1/1,000 s, 1/2,000 s, 1/3,000 s, 1/4,000 s, 1/10,000 s **Automatic Gain** 128 levels (adjustable level settings) Control ATW/AWB/manual/push lock/3200 K/6300 K White Balance WDR; BLC WDR/BLC/off Fog Reduction 16 levels (0 to 15) PAL 50 Hz/NTSC 60 Hz/off Flickerless Dynamic Noise 2D Reduction On (2 to 6X)/off Sense Up English/Japanese, Traditional Chinese, Simplified Chinese Language (option not changable) Image Setting Sharpness/contrast/saturation/hue/mirror Privacy Zone Mask On/off (16 zones programmable, Mosaic) I/O Connector • RS-485 (Pelco-D/P)× 1 • DI x 1 • DO x 1  $\overline{\mathrm{DC}}$ **Automatic Iris;** Connector Lens Built-in f = 3 to 10 mm DC auto iris lens Water Resistance **IP66** Maximum Breaking 656.1 kgf Strength 12 V DC; 9 W Power Supply; Consumption Operation; Storage -10 °C to 50 °C (14 °F to 122 °F); -20 °C to 50 °C (-4 °F Temperature Maximum: RH 80 %; RH 90 % **Operation**; Storage Humidity 140 mm × 112 mm (5.51 in × 4.41 in) Dimensions  $(\emptyset \times H)$ Weight 1 kg (2.20 lb) **Accessories Option** 

<sup>\*</sup>Design and specifications are subject to change without prior notice.



#### Full HD WDR 1080p 30 fps HDCCTV Outdoor Dome Camera

Outdoor dome, 1080p at 30 fps, H.264, WDR, day and night ICR, Privacy zone mask, multi shutter speed, IP66, f=2.8 to 12 mm vari-focal auto iris lens



#### **Features**

- Full HD 1080p HD-SDI CCTV camera
- HDV and SDV video out simultaneously
- WDR (long with short exposure tech)
- Day and night IR-cut removable control
- DNR/AGC/3DNR/BLC/HLC/XDR/MIRROR/FLIP
- White balance-ATW/AWB/R-Y/R-B
- OSD
- Available HDV-I/F out as below
- YUV422 (BT.1120) module application
- HD-SDI SMPTE 292M
- HD coaxal connector for (HD-video/RS-485/power transmitting by a coaxial cable)
- Optic-fiber out supporting for SFP pathological pattern
- HD fiber connector for 2 wavelengths onto a single optical fiber

Model	TSCD2601
Video System	PAL/NTSC
Image Sensor	1/3-inch Panasonic 1.3-megapixel progressive CMOS
	sensor
Resolution $(H \times V)$	1920 × 1080
Frame Rates	1080p at 25/30 frames per second
SDI Standards	HD-SDI (SMPTE 292M)
Minimum	0.05 lux at AGC on/Sens-up off/F1.2
Illumination	
Digital Wide	128X normal camera
Dynamic Range	

Model	TSCD2601
Digital Video	HD-SDI (without cable driver)
Output	• YUV: 422 (optional)
Analog Video	CVBS
Output	CVBS
Audio	Not applicable
Mechanical IR Cut	Automatically switches (switching lux level can be
Filter (ICR)	adjusted)/external
IR LED; Working	Compatible with infrared illuminator
Distance	Compandie with infrared munificator
OSD Menu	OSD control (by RS-485 remote control or by coaxial
OSD Wienu	control)
Day and Night	Color/black and white/auto/external
Day and Night Mode	Color/black and winte/auto/external
	• A
Multi-Electronic	• Auto shutter: 1/50 (60) s to 1/120,000 s
Shutter	• Manual shutter: Off (1/50 (60) s), FL 1/100 (120)
	s, 1/250 s, 1/500 s, 1/1,000 s, 1/2,500 s, 1/5,000 s,
A4	1/10,000 s, 1/30,000 s 0 dB to 42 dB
Automatic Gain	U UD 10 42 UB
Control	ATWITATWO/AWC/
White Balance	ATW1/ATW2/AWC/manual/indoor/outdoor
WDR; BLC	High/middle/low/off; On/HLC/off
Fog Reduction	Auto/high/middle/low/off
Flickerless	Not applicable
Dynamic Noise	3D (high/middle/low)
Reduction	0.000 ( 0 . 0.55)
Sense Up	Off/on (× 2 to × 255)
Language	English/Simplified Chinese/Japanese
Image Setting	Negative/sharpness/mirror
Privacy Zone Mask	On/off, Zone Num, Zone Disp, H-POS, V-POS, H-Size, V-
I/O Connector	Size, Y Level, CR level, CB level
1/O Connector	HD-SDI type     HD SDI consist connector (Recover Circle and HD)
	HD-SDI coaxial connector (Power, Ctrl and HD-
	video are over coaxial cable)  Optical fiber-out SMPTE 297
	Optical fiber-out SMP1E 297     HDMI
	HD fiber connector for 2 wavelengths onto a
Automotic Trice	single optical fiber DC
Automatic Iris; Connector	
Lens	Built-in f = 2.8 to 12 mm DC auto iris lens
Water Resistance	IP66
Maximum Breaking	Not applicable
Strength	Two applicable
Power Supply;	12 V DC; 4.2 W
Consumption	12 , 20, 12 ,
Operation; Storage	-10 °C to 50 °C (14 °F to 122 °F); -20 °C to 50 °C (-4 °F
Temperature	to 122 °F)
Operation; Storage	Maximum: RH 80 %; RH 90 %
Humidity	Maximum. NII 00 /0, NII 70 /0
Dimensions (Ø × H)	142 mm × 84 mm (0.47 in × 0.28 in)
Weight	0.5 kg (1.10 lb)
Accessories Option	- Kg (1.10 to)
Accessories Option	[ <del>-</del>

<sup>\*</sup>Design and specifications are subject to change without prior notice.



#### Full HD WDR 1080p 60 fps HDCCTV Weather **Proof Dome Camera**

Outdoor dome, 1080p at 60~fps, H.264, WDR, day and night ICR, privacy zone mask, multi shutter speed, IP66, with f = 3 to 10 mm vari-focal auto iris lens



#### **Features**

- Full HD 1080p at 50/60 frames per second (3G-SDI) color camera
- 1/2.8-inch Sony 3-megapixel Progressive Exmor™ CMOS sensor
- Color: 0.1 lux at F1.3, Black and white: 0.01 lux at F1.3, Sense-up: 0.001
- Simultaneous video output: SDI/composite BNC
- OSD menu control
- OSD control (by RS-485 remote control or by coaxial control)
- Fog reduction & 2D noise reduction & sense up functions
- Shutter Mode (auto/manual)
- Mechanical IR cut filter (ICR)
- RS-485  $\times$  1, DI  $\times$  1, DO  $\times$  1/Option: PoC + Audio

Model	TSCD2705
Video System	PAL/NTSC selectable
Image Sensor	1/2.8-inch Sony 3-megapixel Progressive Exmor™ CMOS
	sensor
Resolution (H × V)	1920 × 1080
Frame Rates	1080p at 50/60 frames per second (adjustable to 1080p at
	25/30 frames per second, 1080i at 50/60 frames per
	second)
SDI Standards	3G-SDI (SMPTE 424M)
Minimum	• Color: 0.1 lux at F1.3,
Illumination	<ul> <li>Black and white: 0.01 lux at F1.3,</li> </ul>
	<ul> <li>Sense-up: 0.001 lux at F1.3</li> </ul>
Digital Wide	512X normal camera (54 dB)
Dynamic Range	

Model	TSCD2705
Digital Video	BNC connector (SDI) × 1
Output	
Analog Video	BNC connector (1.0 Vp-p composite, 75 ohm) × 1
Output	
Audio	Option: Two-way audio
Mechanical IR Cut	Automatically switches (switching lux level can be
Filter (ICR)	adjusted)/external
IR LED; Working	Compaible with infrared illuminator
Distance	
OSD Menu	OSD control (by RS-485 remote control or by coaxial
	control)
Day and Night	Color/black and white/auto/external
Mode	
Multi-Electronic	Auto shutter: Self de?ned auto shutter speed range
Shutter	programmable
	• Manual shutter: 1/50 (60) s, 1/100 (120) s, 1/150
	(180) s, 1/200 (240) s, 1/250 s, 1/300 s, 1/350 s,
	1/400 s, 1/450 s, 1/500 s, 1/600 s, 1/750 s, 1/1,000
	s, 1/2,000 s, 1/3,000 s, 1/4,000 s, 1/10,000 s
Automatic Gain	128 levels (adjustable level settings)
Control	
White Balance	ATW/AWB/manual/push lock/3200 K/6300 K
WDR; BLC	WDR/BLC/off
Fog Reduction	16 levels (0 to 15)
Flickerless	PAL 50 Hz/NTSC 60 Hz/off
Dynamic Noise	2D
Reduction	
Sense Up	On (2 to 6X)/off
Language	English/Japanese, Traditional Chinese, Simplified Chinese
	(option not changable)
Image Setting	Sharpness/contrast/saturation/hue/mirror
Privacy Zone Mask	On/off (16 zones programmable, Mosaic)
I/O Connector	• RS-485 (Pelco-D/P)× 1
	• DI × 1
	• DO × 1
	• Option: Audio in (3.5 mm) × 1/Audio out (3.5
	mm) × 1
Automatic Iris;	DC
Connector	
Lens	Built-in f = 3 to 10 mm DC auto iris lens
Water Resistance	IP66
Maximum Breaking	656.1 kgf
Strength	
Power Supply;	12 V DC, (option: 12 V DC/24 V AC, PoC (Power over
Consumption	Cable); 4.2 W
Operation; Storage	-10 °C to 50 °C (14 °F to 122 °F); -20 °C to 50 °C (-4 °F
Temperature	to 122 °F)
Operation; Storage	Maximum: RH 80 %; RH 90 %
Humidity	
Dimensions (Ø × H)	140 mm × 112 mm (5.51 in × 4.41 in)
Weight	0.95 kg (2.09 lb)
Accessories Option	-

<sup>\*</sup>Design and specifications are subject to change without prior notice.



#### 4 Channels HD-SDI DVR

4 channels HD-SDI DVR supporting 7 SATA devices



#### **Features**

- Support 4 HD-SDI Cameras (1080p/720p)
- Record 1080p at 30/25 frames per second
- Full HD 1080p picture quality
- 1080p HDMI/VGA for display
- Dual monitor 1080p output and operation independent
- Intelligent video system supported
- Triple streaming for live display, playback, and recording
- Support Mac system
- Support 3G mobile system
- Support touch-panel LCD monitor

Model	TSCR5601
Video Input	$4 \times \text{HD-SDI}$ (1080p at 60/50/30/25 frames per second,
	1080i at 60/50 frames per second, 720p at 60/50 frames
	per second)
Video Output	Maximum 1920 × 1080 pixels
	• 2 independent output: 1 HDMI with audio, 1 VGA
	<ul> <li>1 BNC (NTSC/PAL) bindable to either HDMI or</li> </ul>
	VGA
Audio Input	• 4 HD-SDI
	<ul> <li>4 RCA (1 shared RCA for 2-way audio)</li> </ul>
Audio Output	2 RCA
Operating System	Embedded Linux OS
SATA Devices	Supports maximum 7 SATA devices (HDD × 6 + eSATA
	$\times$ 1, HDD $\times$ 4 + DVD $\times$ 1 + eSATA $\times$ 1)
External HDD	Yes (eSATA)
Sensor In (NO, NC)	Sensor-in × 4
Relay Out	Relay-out × 4

Model	TSCR5601
Serial Interface	RS-485
USB	2 × USB2.0
Dimensions (W × H	442 mm × 92 mm × 438 mm (17.40 in × 3.62 in × 17.24
× D)	in)
Weight	5 kg (11.02 lb) (without HDD/DVD±RW)
Power Supply	220 V AC/110 V AC
Power Rating	220 W
Display Speed	1080p/720p at 120 frames per second
Display Split Screen	1, 4, SEQ.
Display Auto	Switching time: 1 to 99 second
Channel Switching	
Display Mode	Zoom (digital $\times$ 2 to $\times$ 8 ), PIP, auto SEQ.
Recording	H.264 high profile
Compression	
Main Recording	1920 × 1080 pixels/1280 × 720 pixels
Resolution	
Sub (Network)	640 × 360 pixels/320 × 180 pixels
Recording	
Resolution	
Recording Picture	10 to 100 levels for adjustment
Quality	
Recording Mode	Normal, manual, event, schedule
Recording Speed	120 frames per second
Recording Pre-	1 s to 10 s
Alarm	1 100
Recording Post-	1 s to 100 s
Alarm	
Playback Display	1,4
Playback Search	Date/time, event
Mode	Digital (v. 2 to v. 9)
Playback Zoom	Digital (× 2 to × 8)
Playback Snapshot	Yes  Play page step slaw (1/2 1/4 1/9) FF (4 9 16 22)
Playback Speed	Play, pause, stop, slow (1/2, 1/4, 1/8), FF (4, 8, 16, 32),
Dlayback Davisa	REW (4, 8, 16, 32), frame step Int. HDD/eSATA
Playback Device Network Interface	10/100/1000 Ethernet
Protocol	TCP/IP, SMTP, HTTP, DHCP, PPPoE (ADSL), NTP,
1 1010001	DDNS
Application	Windows XP/VISTA/7, Mac OS X
Remote Software	iWatch DVR, IE Browser
Account	1 admin + 8 users
CMS	CMS for Windows XP, Windows Vista, Windows 7
Mobile Device	Windows Phone, Blackberry, iPhone, iPad, Android
Event Transport	E-mail
Backup Interface	USB 2.0 or SATA
Audio Backup	Yes
Network	Yes
Backup Device	iWatch DVR, USB flash drive, USB DVD±RW, SATA
(Optional)	DVD±RW, blueray-R
Motion Detection	Sensitivity: 100 levels for each channel
	Area: Programmable individually
Event Log	Up to the 10000 events (sensor, motion, video loss, power
	on, remote login, logout, HDD error, HDD full)
GUI	32-bit true color
Multi-Language	Supported
Camera Title	Multi-language
USB Mouse	Yes
Touch Panel	Touch panel LCD monitor (USB interface, EETI chipset
	only)
Remote Controller	IR remote control
System Upgrade	USB flash drive, iWatch DVR
Hard Key	Front panel
Pan/Tilt/Zoom	Control from RS-485 interface (Pelco P, Pelco D,
la .	Samsung, LG, LiLin)
Control	Sallisung, LO, LiLin)

<sup>\*</sup>Design and specifications are subject to change without prior notice.



#### 4 Channels HD-SDI DVR

4 channels HD-SDI DVR supporting 4 SATA devices



#### **Features**

- 4 channel HD-SDI 1080p/720p inputs
- Almost 30 % storage space saved by using H.264 AVC
- Record 1080p at 120/100 frames per second
- Dual monitor 1080p output and operation independent
- Intelligent video system supported
- 2-way audio communication
- HD multiplexer
- Display aspect ration 4:3/16:9 switchable
- 1080p HDMI/VGA output for display, playback, and recording
- Support Mac system
- Support 3G mobile system
- Support touch-panel LCD monitor

Model	TSCR5602
Video Input	$4 \times \text{HD-SDI}$ (1080p at 60/50/30/25 frames per second,
	1080i at 60/50 frames per second, 720p at 60/50 frames
	per second)
Video Output	Maximum 1920 × 1080 pixels
	• 2 independent output: 1 HDMI with audio, 1 VGA
	• 1 BNC (NTSC/PAL) bindable to either HDMI or
	VGA
Audio Input	• 4 HD-SDI
	<ul> <li>4 RCA (1 shared RCA for 2-way audio)</li> </ul>
Audio Output	2 RCA
Operating System	Embedded Linux OS
SATA Devices	Supports maximum 4 SATA devices (HDD $\times$ 3 + eSATA
	$\times$ 1, HDD $\times$ 2 + DVD±RW $\times$ 1 + eSATA $\times$ 1)
External HDD	Yes (eSATA)

sor-in × 4 ay-out × 2
ÿ
485
USB2.0
mm × 55 mm × 293 mm (16.93 in × 2.17 in × 11.54
g (4.41 lb) (without HDD/DVD±RW)
• Input: AC 100 to 240 V,
• Output: 12 V DC, 6 A
W
0p/720p at 120 frames per second
, SEQ.
tching time: 1 s to 99 s
telling time. 13 to 37 3
om (digital $\times$ 2 to $\times$ 8), PIP, auto SEQ.
64 high profile
04 nign prome
0 1000
$0 \times 1080$ pixels/ $1280 \times 720$ pixels
260 -:1-/220 190 -: 1
$\times$ 360 pixels/320 $\times$ 180 pixels
1001 1 0 1
o 100 levels for adjustment
mal, manual, event, schedule
frames per second
to 10 s
to 100 s
e/time, event
ital (× 2 to × 8)
y, pause, stop, slow (1/2, 1/4, 1/8), FF (4, 8, 16, 32),
W (4, 8, 16, 32), frame step
HDD/eSATA
100/1000 Ethernet
P/IP, SMTP, HTTP, DHCP, PPPoE (ADSL), NTP,
NS
ndows XP/VISTA/7, Mac OS X
atch DVR, IE Browser
lmin + 8 users
S for Windows XP, Windows Vista, Windows 7
ndows Phone, Blackberry, iPhone, iPad, Android
nail
B 2.0 or SATA
otah DVD JISD flash drive JISD DVD DW SATA
atch DVR, USB flash drive, USB DVD±RW, SATA
D±RW, blueray-R
0 11 1 1001 1 0 1 1 1
Sensitivity: 100 levels for each channel
Area: Programmable individually
Area: Programmable individually to the 10000 events (sensor, motion, video loss, power
Area: Programmable individually to the 10000 events (sensor, motion, video loss, power remote login, logout, HDD error, HDD full)
Area: Programmable individually to the 10000 events (sensor, motion, video loss, power remote login, logout, HDD error, HDD full) bit true color
Area: Programmable individually to the 10000 events (sensor, motion, video loss, power remote login, logout, HDD error, HDD full) bit true color ported
Area: Programmable individually to the 10000 events (sensor, motion, video loss, power remote login, logout, HDD error, HDD full) bit true color ported lti-language
Area: Programmable individually to the 10000 events (sensor, motion, video loss, power remote login, logout, HDD error, HDD full) bit true color ported lti-language
Area: Programmable individually to the 10000 events (sensor, motion, video loss, power remote login, logout, HDD error, HDD full) bit true color ported lti-language
Area: Programmable individually to the 10000 events (sensor, motion, video loss, power remote login, logout, HDD error, HDD full) bit true color ported lti-language
Area: Programmable individually to the 10000 events (sensor, motion, video loss, power remote login, logout, HDD error, HDD full) bit true color ported lti-language ich panel LCD monitor (USB interface, EETI chipset
Area: Programmable individually to the 10000 events (sensor, motion, video loss, power remote login, logout, HDD error, HDD full) bit true color ported lti-language ich panel LCD monitor (USB interface, EETI chipset y)
Area: Programmable individually to the 10000 events (sensor, motion, video loss, power remote login, logout, HDD error, HDD full) bit true color ported lti-language the panel LCD monitor (USB interface, EETI chipset by) remote control
Area: Programmable individually to the 10000 events (sensor, motion, video loss, power remote login, logout, HDD error, HDD full) bit true color ported lti-language the panel LCD monitor (USB interface, EETI chipset by) remote control B flash drive, iWatch DVR int panel
Area: Programmable individually to the 10000 events (sensor, motion, video loss, power remote login, logout, HDD error, HDD full) bit true color ported lti-language ich panel LCD monitor (USB interface, EETI chipset by) remote control B flash drive, iWatch DVR

Design and specifications are subject to change without prior notice.



#### 8 Channels HD-SDI DVR

8 channels HD-SDI DVR supporting 7 SATA devices



#### **Features**

- Support 8 HD-SDI cameras (1080p/720p)
- Record 1080p 30/25 frames per second
- Full HD 1080p picture quality
- 1080p HDMI/VGA for display
- Dual monitor 1080p output and operation independent
- Intelligent video system supported
- Triple streaming for live display, playback, and recording
- Support Mac system
- Support 3G mobile system
- Support touch-panel LCD monitor

Model	TSCR6603
Video Input	$8 \times \text{HD-SDI}$ (1080p at 60/50/30/25 frames per second,
	1080i at 60/50 frames per second, 720p at 60/50 frames
	per second)
Video Output	Maximum 1920 × 1080 pixels
	• 2 independent output: 1 HDMI with audio, 1 VGA
	<ul> <li>1 BNC (NTSC/PAL) bindable to either HDMI or</li> </ul>
	VGA
Audio Input	• 8 HD-SDI
	<ul> <li>8 RCA (1 shared RCA for 2-way audio)</li> </ul>
Audio Output	2 RCA
Operating System	Embedded Linux OS
SATA Devices	Supports maximum 7 SATA devices (HDD $\times$ 6 + eSATA
	$\times$ 1, HDD $\times$ 4 + DVD $\times$ 1 + eSATA $\times$ 1)
External HDD	Yes (eSATA)
Sensor In (NO, NC)	Sensor-in × 8
Relay Out	Relay-out × 4

Serial Interface	Model	TSCR6603
USB		
Dimensions (W x H x D)		
Weight		
Weight   S.3 kg (without HDD/DVD±RW)	,	442 × 92 × 430 mm
Power Rating   220 V AC/110 V AC		5.3 kg (without HDD/DVD+RW)
Display Speed   1080p/720p at 240 frames per second   1080p/720p at		
Display Speed Display Split Screen Display Auto Display Auto Channel Switching Display Mode Recording Compression Main Recording Resolution Sub (Network) Recording Peture Quality Recording Pre- Alarm Recording Post- Alarm Playback Display Playback Sareh Mode Playback Speed Playback Speed Playback Speed Playback Speed Network Interface Network Interface Recording Protocol Digital (×2 to ×8) Playback Device Network Interface Recording Protocol Digital (×2 to ×8) Playback Sown Playback Device Network Interface Recording Protocol Digital (×2 to ×8) Playback Sown Playback Device Network Interface Remote Software Recording Protocol Digital (×2 to ×8) Playback Sown Playback Device Digital (×2 to ×8) Playback Device Network Interface Remote Software Recording Remote Software Recording Resolution Remote Software Recording Protocol Digital (×2 to ×8) Playback Device Network Interface Remote Software Recording Resolution Remote Software Recording Protocol Digital (×2 to ×8) Playback Device Simple Republication Remote Software Remote Remote Republication Remote Remote Remote Republication Remote		
Display Split Screen   1.4,8,SEQ.		
Display Auto   Channel Switching   Display Mode   Zoom (digital × 2 to × 8 ), PIP, auto SEQ.		
Channel Switching   Display Mode   Zoom (digital × 2 to × 8 ), PIP, auto SEQ.		
Display Mode Recording		Switching time. 1 to 33 second
Recording Compression		Zoom (digital x 2 to x 8 ) PIP auto SEO
Compression   Main Recording   1920 × 1080 pixels/1280 × 720 pixels   Resolution   Sub (Network)   640 × 360 pixels/320 × 180 pixels   Recording   Resolution   Recording Picture   10 to 100 levels for adjustment   Recording Picture   120 frames per second   Recording Pre-   13 to 10 s   Recording Pre-   14 to 100 s   Recording Pre-   15 to 100 s   Recording Post-   16 to 100 s		
Main Recording   1920 × 1080 pixels/1280 × 720 pixels	•	1120 mgn promo
Resolution Sub (Network) Recording Recording Picture Quality Recording Speed Recording Speed Recording Post- Alarm Recording Post- Alarm Playback Display Playback Zoom Playback Soarch Mode Playback Soed Playback Somphot Playback Soed Playback Somphot Playback Soed Playback Soed Playback Speed Playback Soed Playback Soed Playback Somphot Playback Device Int. HDD/cSATA Network Interface Protocol TCP/IP, SMTP, HTTP, DHCP, PPPoE (ADSL), NTP, DDNS Application Windows XP/VISTA/7, Mac OS X Remote Software Account 1 admin + 8 users CMS CMS for Windows XP, Windows Vista, Windows 7 Mobile Device Windows Phone, Blackberry, iPhone, iPad, Android E-mail Backup Interface USB 2.0 or SATA Audio Backup Yes Network Motion Detection Vigen Supported Camera Title Multi-Language USB Mouse Ves Touch Panel Tire Picture USB Glash drive, iWatch DVR Remote Controller Recording Picture USB flash drive, iWatch DVR Remote Controller Recording Picture USB flash drive, iWatch DVR Remote Controller Recording Picture USB flash drive, iWatch DVR Remote Controller Recording Picture USB flash drive, iWatch DVR Remote Controller Recording Picture USB flash drive, iWatch DVR Remote Controller Recording Picture System Upgrade USB flash drive, iWatch DVR Remote Controller Recording Picture Recording Android USB flash drive, iWatch DVR Remote Controller Recording Application Android USB flash drive, iWatch DVR Remote Controller Recording Picture, schedule Recording Application Android USB flash drive, iWatch DVR Remote Controller Recording Application Application Android USB flash drive, iWatch DVR Remote Controller Recording Application Ap		1920 × 1080 pixels/1280 × 720 pixels
Sub (Network)   Recording		1920 W 1000 Pintels 1200 W 720 Pintels
Recording   Resolution   Recording Picture   Uality   Cuality   Recording Mode   Normal, manual, event, schedule   Recording Speed   120 frames per second   Recording Pre   Is to 10 s   Is to 10 s   Is to 10 s   Is to 100 s		640 × 360 pixels/320 × 180 pixels
Resolution Recording Picture Quality Recording Mode Recording Speed Recording Pre- Alarm Recording Post- Alarm Recording Post- Alarm Playback Display Playback Search Mode Playback Sapshot Playback Speed Playback Speed Playback Speed Ret (4, 8, 16, 32), frame step Playback Device Playback Device Protocol TCP/IP, SMTP, HTTP, DHCP, PPPOE (ADSL), NTP, DDNS Application Windows XP/VISTA/7, Mac OS X Remote Software Account I admin + 8 users CMS CMS (CMS for Windows XP, Windows Vista, Windows 7 Mobile Device Windows Phone, Blackberry, iPhone, iPad, Android Event Transport Backup Interface Backup Interface Sexent Sexent Wister DVR, USB flash drive, USB DVD±RW, SATA Notion Detection  • Sensitivity: 100 levels for each channel • Area: Programmable individually Event Log Up to the 10000 events (sensor, motion, video loss, power on, remote login, logout, HDD error, HDD full) GUI Multi-Language Camera Title Multi-language USB Mouse Touch Panel USB 1dah drive, iWatch DVR USB flash drive, iWatch DVR USB flash drive, EETI chipset only) Remote Controller IR remote control USB flash drive, iWatch DVR	·	· · · · · · · · · · · · · · · · · · ·
Recording Picture Quality   10 to 100 levels for adjustment		
Quality         Recording Mode         Normal, manual, event, schedule           Recording Speed         120 frames per second           Recording Pre-Alarm         1s to 10 s           Recording Post-Alarm         1s to 100 s           Playback Display         1,4,8           Playback Search Mode         Date/time, event           Playback Sangshot         Yes           Playback Speed         Digital (×2 to × 8)           Playback Speed         Play, pause, stop, slow (1/2, 1/4, 1/8), FF (4, 8, 16, 32), REW (4, 8, 16, 32), frame step           Playback Device         Int. HDD/cSATA           Network Interface         10/100/1000 Ethernet           Protocol         TCP/IP, SMTP, HTTP, DHCP, PPPoE (ADSL), NTP, DDNS           Application         Windows XP/VISTA/7, Mac OS X           Remote Software         Windows XP/VISTA/7, Mac OS X           Account         1 admin + 8 users           CMS         CMS for Windows XP, Windows Vista, Windows 7           Mobile Device         Windows Phone, Blackberry, iPhone, iPad, Android           Event Transport         E-mail           Backup Interface         USB 2.0 or SATA           Audio Backup         Yes           Network         Yes           Backup Device         Object <th< th=""><th></th><th>10 to 100 levels for adjustment</th></th<>		10 to 100 levels for adjustment
Recording Mode         Normal, manual, event, schedule           Recording Speed         120 frames per second           Recording Pre-Alarm         1s to 10 s           Alarm         1s to 100 s           Playback Display         1, 4, 8           Playback Search Mode         Date/ttime, event           Playback Snapshot         Yes           Playback Speed         Play, pause, stop, slow (1/2, 1/4, 1/8), FF (4, 8, 16, 32), REW (4, 8, 16, 32), frame step           Playback Device         Int. HDD/cSATA           Network Interface         10/100/1000 Ethernet           Protocol         TCP/IP, SMTP, HTTP, DHCP, PPPOE (ADSL), NTP, DDNS           Application         Windows XP/VISTA/7, Mac OS X           Remote Software         Windows XP, Windows Vista, Windows 7           Account         1 admin + 8 users           CMS         CMS for Windows XP, Windows Vista, Windows 7           Mobile Device         Windows Phone, Blackberry, iPhone, iPad, Android           Event Transport         E-mail           Backup Interface         USB 2.0 or SATA           Audio Backup         Yes           Network         Yes           Backup Device         iWatch DVR, USB flash drive, USB DVD±RW, SATA           Optional)         OVD±RW, blueray-R           <	_	,
Recording Speed   120 frames per second		Normal, manual, event, schedule
Recording Pre- Alarm Recording Post- Alarm Playback Display 1, 4, 8 Playback Search Mode Playback Sanpshot Play, pause, stop, slow (1/2, 1/4, 1/8), FF (4, 8, 16, 32), REW (4, 8, 16, 32), frame step Playback Device Int. HDD/cSATA Network Interface Protocol TCP/IP, SMTP, HTTP, DHCP, PPPoE (ADSL), NTP, DDNS Application Windows XP/VISTA/7, Mac OS X Remote Software Account 1 admin + 8 users CMS CMS for Windows XP, Windows Vista, Windows 7 Mobile Device Windows Phone, Blackberry, iPhone, iPad, Android Event Transport Backup Interface USB 2.0 or SATA Audio Backup Yes Network Yes Backup Device (Optional) Motion Detection Windows Play Hash drive, USB DVD±RW, SATA DVD±RW, blueray-R  • Sensitivity: 100 levels for each channel • Area: Programmable individually Function Proceed on, remote login, logout, HDD error, HDD full) GUI 32-bit true color Multi-Language Camera Title Multi-language USB Mouse Yes Touch Panel Touch panel LCD monitor (USB interface, EETI chipset only) Remote Controller System Upgrade USB flash drive, iWatch DVR		
Recording Post-   Alarm		1
Recording Post-Alarm		
Alarm		1s to 100 s
Playback Search Mode Playback Zoom Playback Snapshot Playback Speed Play pause, stop, slow (1/2, 1/4, 1/8), FF (4, 8, 16, 32), REW (4, 8, 16, 32), frame step Playback Device Int. HDD/eSATA Network Interface Protocol TCP/IP, SMTP, HTTP, DHCP, PPPoE (ADSL), NTP, DDNS Application Windows XP/VISTA/7, Mac OS X Remote Software I admin + 8 users CMS CMS or Windows XP, Windows Vista, Windows 7 Mobile Device Windows Phone, Blackberry, iPhone, iPad, Android Event Transport Backup Interface Backup Metwork Pes Backup Device (Optional) Motion Detection Windows Phone, Blackberry, iPhone, iPad, Android Ves Sensitivity: 100 levels for each channel Area: Programmable individually Event Log Up to the 10000 events (sensor, motion, video loss, power on, remote login, logout, HDD error, HDD full) GUI 32-bit true color Multi-Language Camera Title Multi-language USB Mouse Yes Touch Panel USB flash drive, iWatch DVR Watch DVR USB flash drive, EETI chipset only) Remote Controller Remote Controller IR remote control USB flash drive, iWatch DVR		
Playback Search Mode Playback Zoom Playback Snapshot Playback Speed Play pause, stop, slow (1/2, 1/4, 1/8), FF (4, 8, 16, 32), REW (4, 8, 16, 32), frame step Playback Device Int. HDD/eSATA Network Interface Protocol TCP/IP, SMTP, HTTP, DHCP, PPPoE (ADSL), NTP, DDNS Application Windows XP/VISTA/7, Mac OS X Remote Software I admin + 8 users CMS CMS or Windows XP, Windows Vista, Windows 7 Mobile Device Windows Phone, Blackberry, iPhone, iPad, Android Event Transport Backup Interface Backup Metwork Pes Backup Device (Optional) Motion Detection Windows Phone, Blackberry, iPhone, iPad, Android Ves Sensitivity: 100 levels for each channel Area: Programmable individually Event Log Up to the 10000 events (sensor, motion, video loss, power on, remote login, logout, HDD error, HDD full) GUI 32-bit true color Multi-Language Camera Title Multi-language USB Mouse Yes Touch Panel USB flash drive, iWatch DVR Watch DVR USB flash drive, EETI chipset only) Remote Controller Remote Controller IR remote control USB flash drive, iWatch DVR	Playback Display	1,4,8
Playback Zoom   Digital (×2 to × 8)		Date/time, event
Playback Snapshot   Yes		
Playback Snapshot   Yes	Playback Zoom	Digital (×2 to × 8)
REW (4, 8, 16, 32), frame step  Playback Device Int. HDD/eSATA  Network Interface 10/100/1000 Ethernet  Protocol TCP/IP, SMTP, HTTP, DHCP, PPPoE (ADSL), NTP, DDNS  Application Windows XP/VISTA/7, Mac OS X  Remote Software Account 1 admin + 8 users  CMS CMS CMS for Windows XP, Windows Vista, Windows 7  Mobile Device Windows Phone, Blackberry, iPhone, iPad, Android Event Transport Backup Interface USB 2.0 or SATA  Audio Backup Yes Network Yes Backup Device (Optional) Motion Detection  • Sensitivity: 100 levels for each channel • Area: Programmable individually  Event Log Up to the 10000 events (sensor, motion, video loss, power on, remote login, logout, HDD error, HDD full)  GUI 32-bit true color  Multi-Language Camera Title Multi-language USB Mouse Yes  Touch Panel Touch panel LCD monitor (USB interface, EETI chipset only)  Remote Controller System Upgrade USB flash drive, iWatch DVR		
Playback Device   Int. HDD/eSATA   10/100/1000 Ethernet   10/100/1000 Ethernet   TCP/IP, SMTP, HTTP, DHCP, PPPoE (ADSL), NTP, DDNS   Application   Windows XP/VISTA/7, Mac OS X   Remote Software   iWatch DVR, IE Browser   1 admin + 8 users   CMS   CMS   Gr Windows XP, Windows Vista, Windows 7   Mobile Device   Windows Phone, Blackberry, iPhone, iPad, Android   Event Transport   E-mail   E-mail   E-mail   E-mail   USB 2.0 or SATA   Audio Backup   Yes   Watch DVR, USB flash drive, USB DVD±RW, SATA   DVD±RW, blueray-R   iWatch DVR, USB flash drive, USB DVD±RW, SATA   DVD±RW, blueray-R   • Sensitivity: 100 levels for each channel   • Area: Programmable individually   Event Log   Up to the 10000 events (sensor, motion, video loss, power on, remote login, logout, HDD error, HDD full)   GUI   32-bit true color   Multi-Language   Supported   Camera Title   Multi-language   USB Mouse   Yes   Touch Panel   Touch panel LCD monitor (USB interface, EETI chipset only)   Remote Controller   IR remote control   System Upgrade   USB flash drive, iWatch DVR   CADS	Playback Speed	Play, pause, stop, slow (1/2, 1/4, 1/8), FF (4, 8, 16, 32),
Network Interface10/100/1000 EthernetProtocolTCP/IP, SMTP, HTTP, DHCP, PPPoE (ADSL), NTP, DDNSApplicationWindows XP/VISTA/7, Mac OS XRemote SoftwareiWatch DVR, IE BrowserAccount1 admin + 8 usersCMSCMS for Windows XP, Windows Vista, Windows 7Mobile DeviceWindows Phone, Blackberry, iPhone, iPad, AndroidEvent TransportE-mailBackup InterfaceUSB 2.0 or SATAAudio BackupYesNetworkYesBackup DeviceiWatch DVR, USB flash drive, USB DVD±RW, SATA(Optional)DVD±RW, blueray-RMotion Detection• Sensitivity: 100 levels for each channel• Area: Programmable individuallyEvent LogUp to the 10000 events (sensor, motion, video loss, power on, remote login, logout, HDD error, HDD full)GUI32-bit true colorMulti-LanguageSupportedCamera TitleMulti-languageUSB MouseYesTouch PanelTouch panel LCD monitor (USB interface, EETI chipset only)Remote ControllerIR remote controlSystem UpgradeUSB flash drive, iWatch DVR		REW (4, 8, 16, 32), frame step
TCP/IP, SMTP, HTTP, DHCP, PPPoE (ADSL), NTP, DDNS  Application Windows XP/VISTA/7, Mac OS X  Remote Software iWatch DVR, IE Browser  Account 1 admin + 8 users  CMS CMS for Windows XP, Windows Vista, Windows 7  Mobile Device Windows Phone, Blackberry, iPhone, iPad, Android  Event Transport E-mail  Backup Interface USB 2.0 or SATA  Audio Backup Yes  Network Yes  Backup Device (Optional) DVD±RW, USB flash drive, USB DVD±RW, SATA (Optional) DVD±RW, blueray-R  Motion Detection • Sensitivity: 100 levels for each channel • Area: Programmable individually  Event Log Up to the 10000 events (sensor, motion, video loss, power on, remote login, logout, HDD error, HDD full)  GUI 32-bit true color  Multi-Language Supported  Camera Title Multi-language  USB Mouse Yes  Touch Panel Touch panel LCD monitor (USB interface, EETI chipset only)  Remote Controller  System Upgrade USB flash drive, iWatch DVR	Playback Device	Int. HDD/eSATA
Application Windows XP/VISTA/7, Mac OS X  Remote Software iWatch DVR, IE Browser  Account 1 admin + 8 users  CMS CMS for Windows XP, Windows Vista, Windows 7  Mobile Device Windows Phone, Blackberry, iPhone, iPad, Android  Event Transport E-mail  Backup Interface USB 2.0 or SATA  Audio Backup Yes  Network Yes  Backup Device iWatch DVR, USB flash drive, USB DVD±RW, SATA DVD±RW, blueray-R  Motion Detection • Sensitivity: 100 levels for each channel • Area: Programmable individually  Event Log Up to the 10000 events (sensor, motion, video loss, power on, remote login, logout, HDD error, HDD full)  GUI 32-bit true color  Multi-Language Supported  Camera Title Multi-language  USB Mouse Yes  Touch Panel Touch panel LCD monitor (USB interface, EETI chipset only)  Remote Controller IR remote control  System Upgrade USB flash drive, iWatch DVR	Network Interface	10/100/1000 Ethernet
Application Windows XP/VISTA/7, Mac OS X Remote Software iWatch DVR, IE Browser  Account 1 admin + 8 users  CMS CMS for Windows XP, Windows Vista, Windows 7  Mobile Device Windows Phone, Blackberry, iPhone, iPad, Android  Event Transport E-mail  Backup Interface USB 2.0 or SATA  Audio Backup Yes  Network Yes  Backup Device iWatch DVR, USB flash drive, USB DVD±RW, SATA DVD±RW, blueray-R  Motion Detection • Sensitivity: 100 levels for each channel • Area: Programmable individually  Event Log Up to the 10000 events (sensor, motion, video loss, power on, remote login, logout, HDD error, HDD full)  GUI 32-bit true color  Multi-Language Supported  Camera Title Multi-language  USB Mouse Yes  Touch Panel Touch panel LCD monitor (USB interface, EETI chipset only)  Remote Controller  System Upgrade USB flash drive, iWatch DVR	Protocol	TCP/IP, SMTP, HTTP, DHCP, PPPoE (ADSL), NTP,
Remote Software Account 1 admin + 8 users CMS CMS for Windows XP, Windows Vista, Windows 7 Mobile Device Windows Phone, Blackberry, iPhone, iPad, Android Event Transport Backup Interface USB 2.0 or SATA Audio Backup Yes Network Yes Backup Device (Optional) DVD±RW, USB flash drive, USB DVD±RW, SATA DVD±RW, blueray-R Motion Detection • Sensitivity: 100 levels for each channel • Area: Programmable individually Event Log Up to the 10000 events (sensor, motion, video loss, power on, remote login, logout, HDD error, HDD full) GUI 32-bit true color Multi-Language Camera Title Multi-language USB Mouse Yes Touch Panel Touch panel LCD monitor (USB interface, EETI chipset only) Remote Controller System Upgrade USB flash drive, iWatch DVR		DDNS
Account  CMS  CMS for Windows XP, Windows Vista, Windows 7  Mobile Device  Event Transport  Backup Interface  Audio Backup  Yes  Network  Backup Device (Optional)  Motion Detection  Cynem Log  Up to the 10000 events (sensor, motion, video loss, power on, remote login, logout, HDD error, HDD full)  GUI  32-bit true color  Multi-Language  Camera Title  Multi-language  USB Mouse  Touch Panel  1 admin + 8 users  CMS for Windows XP, Windows Vista, Windows 7  Windows Phone, Blackberry, iPhone, iPad, Android  E-mail  Backup Interface  i Watch DVR, USB flash drive, USB DVD±RW, SATA  obv DVD±RW, SATA  obv DVD±RW, SATA  obv Sensitivity: 100 levels for each channel  obv Sensitivity: 100 level		Windows XP/VISTA/7, Mac OS X
CMS CMS for Windows XP, Windows Vista, Windows 7  Mobile Device Windows Phone, Blackberry, iPhone, iPad, Android  Event Transport E-mail  Backup Interface USB 2.0 or SATA  Audio Backup Yes  Network Yes  Backup Device (Optional) DVD±RW, USB flash drive, USB DVD±RW, SATA DVD±RW, blueray-R  Motion Detection • Sensitivity: 100 levels for each channel • Area: Programmable individually  Event Log Up to the 10000 events (sensor, motion, video loss, power on, remote login, logout, HDD error, HDD full)  GUI 32-bit true color  Multi-Language Supported  Camera Title Multi-language  USB Mouse Yes  Touch Panel Touch panel LCD monitor (USB interface, EETI chipset only)  Remote Controller IR remote control  System Upgrade USB flash drive, iWatch DVR	Remote Software	· · · · · · · · · · · · · · · · · · ·
Mobile Device         Windows Phone, Blackberry, iPhone, iPad, Android           Event Transport         E-mail           Backup Interface         USB 2.0 or SATA           Audio Backup         Yes           Network         Yes           Backup Device (Optional)         iWatch DVR, USB flash drive, USB DVD±RW, SATA DVD±RW, blueray-R           Motion Detection         • Sensitivity: 100 levels for each channel           • Area: Programmable individually           Event Log         Up to the 10000 events (sensor, motion, video loss, power on, remote login, logout, HDD error, HDD full)           GUI         32-bit true color           Multi-Language         Supported           Camera Title         Multi-language           USB Mouse         Yes           Touch Panel         Touch panel LCD monitor (USB interface, EETI chipset only)           Remote Controller         IR remote control           System Upgrade         USB flash drive, iWatch DVR		
Event Transport   E-mail		
Backup Interface Audio Backup Yes Network Yes Backup Device (Optional) Motion Detection  Event Log Up to the 10000 events (sensor, motion, video loss, power on, remote login, logout, HDD error, HDD full) GUI 32-bit true color Multi-Language Camera Title Multi-language USB Mouse Yes Touch Panel  DUB 12.0 or SATA Yes IWatch DVR, USB flash drive, USB DVD±RW, SATA OVD±RW, blueray-R Sensitivity: 100 levels for each channel Sensor, motion, video loss, power on, remote login, logout, HDD error, HDD full) GUI 32-bit true color Multi-Language USB Mouse Yes Touch Panel Touch panel LCD monitor (USB interface, EETI chipset only) Remote Controller IR remote control System Upgrade USB flash drive, iWatch DVR		
Audio Backup       Yes         Network       Yes         Backup Device (Optional)       iWatch DVR, USB flash drive, USB DVD±RW, SATA DVD±RW, blueray-R         Motion Detection       • Sensitivity: 100 levels for each channel         • Area: Programmable individually         Event Log       Up to the 10000 events (sensor, motion, video loss, power on, remote login, logout, HDD error, HDD full)         GUI       32-bit true color         Multi-Language       Supported         Camera Title       Multi-language         USB Mouse       Yes         Touch Panel       Touch panel LCD monitor (USB interface, EETI chipset only)         Remote Controller       IR remote control         System Upgrade       USB flash drive, iWatch DVR		
Network   Yes		
Backup Device (Optional)  Motion Detection  Sensitivity: 100 levels for each channel Area: Programmable individually  Event Log  Up to the 10000 events (sensor, motion, video loss, power on, remote login, logout, HDD error, HDD full)  GUI  32-bit true color  Multi-Language  Camera Title  Multi-language  USB Mouse  Yes  Touch Panel  Touch panel LCD monitor (USB interface, EETI chipset only)  Remote Controller  System Upgrade  iWatch DVR, USB flash drive, iWatch DVR		
Optional   DVD±RW, blueray-R		
Motion Detection  • Sensitivity: 100 levels for each channel • Area: Programmable individually  Event Log  Up to the 10000 events (sensor, motion, video loss, power on, remote login, logout, HDD error, HDD full)  GUI  32-bit true color  Multi-Language  Supported  Camera Title  Multi-language  USB Mouse  Yes  Touch Panel  Touch panel LCD monitor (USB interface, EETI chipset only)  Remote Controller  IR remote control  System Upgrade  USB flash drive, iWatch DVR		· · · · · · · · · · · · · · · · · · ·
Area: Programmable individually  Event Log     Up to the 10000 events (sensor, motion, video loss, power on, remote login, logout, HDD error, HDD full)  GUI 32-bit true color  Multi-Language Supported  Camera Title Multi-language  USB Mouse Yes  Touch Panel Touch panel LCD monitor (USB interface, EETI chipset only)  Remote Controller IR remote control  System Upgrade USB flash drive, iWatch DVR		•
Event Log Up to the 10000 events (sensor, motion, video loss, power on, remote login, logout, HDD error, HDD full)  GUI 32-bit true color  Multi-Language Supported  Camera Title Multi-language  USB Mouse Yes  Touch Panel Touch panel LCD monitor (USB interface, EETI chipset only)  Remote Controller IR remote control  System Upgrade USB flash drive, iWatch DVR	Motion Detection	
on, remote login, logout, HDD error, HDD full)  GUI 32-bit true color  Multi-Language Supported  Camera Title Multi-language  USB Mouse Yes  Touch Panel Touch panel LCD monitor (USB interface, EETI chipset only)  Remote Controller IR remote control  System Upgrade USB flash drive, iWatch DVR	E4 T	
GUI 32-bit true color  Multi-Language Supported  Camera Title Multi-language  USB Mouse Yes  Touch Panel Touch panel LCD monitor (USB interface, EETI chipset only)  Remote Controller IR remote control  System Upgrade USB flash drive, iWatch DVR	Event Log	
Multi-Language         Supported           Camera Title         Multi-language           USB Mouse         Yes           Touch Panel         Touch panel LCD monitor (USB interface, EETI chipset only)           Remote Controller         IR remote control           System Upgrade         USB flash drive, iWatch DVR	CIT	
Camera Title         Multi-language           USB Mouse         Yes           Touch Panel         Touch panel LCD monitor (USB interface, EETI chipset only)           Remote Controller         IR remote control           System Upgrade         USB flash drive, iWatch DVR		
USB Mouse Yes Touch Panel Touch panel LCD monitor (USB interface, EETI chipset only)  Remote Controller IR remote control  System Upgrade USB flash drive, iWatch DVR		••
Touch Panel Touch panel LCD monitor (USB interface, EETI chipset only)  Remote Controller IR remote control  System Upgrade USB flash drive, iWatch DVR		
only)  Remote Controller IR remote control  System Upgrade USB flash drive, iWatch DVR		
Remote Controller IR remote control  System Upgrade USB flash drive, iWatch DVR	1 ouch Panel	
System Upgrade USB flash drive, iWatch DVR	Domote Controller	
, Is		
Hand Koy Front penal		
Hard Key   Front panel     Pan/Tilt/Zoom   Control from RS-485 interface (Pelco P, Pelco D,		
Control Samsung, LG, LiLin)		l i i i i i i i i i i i i i i i i i i i
CORGO Samsung, EU, EIEIII)	Control	Danioulig, LU, LILIII)

<sup>\*</sup>Design and specifications are subject to change without prior notice.



#### 16 Channels HD-SDI DVR

16 channels HD-SDI DVR supporting 7 SATA devices



#### **Features**

- Support 16 HD-SDI cameras (1080p/720p)
- Record 1080p at 30/25 frames per second
- Full HD 1080p picture quality
- 1080p HDMI/VGA for display
- Dual monitor 1080p output and operation independent
- Intelligent video system supported
- Triple streaming for live display, playback, and recording
- Support Mac system
- Support 3G mobile system
- Support touch-panel LCD monitor

#### **Tech Specs**

Model	TSCR7604
Video Input	$16 \times \text{HD-SDI}$ (1080p at 60/50/30/25 frames per second,
	1080i at 60/50 frames per second, 720p at 60/50 frames
	per second)
Video Output	Maximum 1920 × 1080 pixels
	• 2 independent output: 1 HDMI with audio, 1 VGA
	<ul> <li>1 BNC (NTSC/PAL) bindable to either HDMI or</li> </ul>
	VGA
Audio Input	• 16 HD-SDI
	8 RCA (1 shared RCA for 2-way audio)
Audio Output	2 RCA
Operating System	Embedded Linux OS
SATA Devices	Supports maximum 7 SATA devices (HDD × 6 + eSATA
	$\times$ 1, HDD $\times$ 4 + DVD $\times$ 1 + eSATA $\times$ 1)
External HDD	Yes (eSATA)
Sensor In (NO, NC)	Sensor-in × 16
Relay Out	Relay-out × 4

USB	2 × USB2.0
Dimensions (W × H	442 mm × 92 mm × 438 mm (17.40 in × 3.62 in × 17.24
× D)	in)
Weight	6 kg (13.23 lb) (without HDD/DVD±RW)
	220 V AC/110 V AC
Power Supply	
Power Rating	220 W
Display Speed	1080p/720p at 240 frames per second
Display Split	1, 4, 8, 16, SEQ.
Screen	
Display Auto	Switching time: 1 to 99 second
Channel Switching	5 whening times I to 33 second
	7 (di-i-12
Display Mode	Zoom (digital × 2 to × 8 ), PIP, auto SEQ.
Recording	H.264 high profile
Compression	
Main Recording	$1920 \times 1080$ pixels/ $1280 \times 720$ pixels
Resolution	
Sub (Network)	$640 \times 360$ pixels/320 × 180 pixels
Recording	
U	
Resolution	10.4 100.11- f 1'
<b>Recording Picture</b>	10 to 100 levels for adjustment
Quality	
Recording Mode	Normal, manual, event, schedule
Recording Speed	120 frames per second
Recording Pre-	1 s to 10 s
Alarm	
	1 a to 100 a
Recording Post-	1 s to 100 s
Alarm	
Playback Display	1, 4, 8, 16
Playback Search	Date/time, event
Mode	
Playback Zoom	Digital ( $\times$ 2 to $\times$ 8)
Playback Snapshot	Yes
Playback Speed	Play, pause, stop, slow (1/2, 1/4, 1/8), FF (4, 8, 16, 32),
	REW (4, 8, 16, 32), frame step
Playback Device	Int. HDD/eSATA
Network Interface	10/100/1000 Ethernet
Protocol	TCP/IP, SMTP, HTTP, DHCP, PPPoE (ADSL), NTP,
11000001	DDNS
Annlication	Windows XP/VISTA/7, Mac OS X
Application	
Remote Software	iWatch DVR, IE Browser
Account	1 admin + 8 users
CMS	CMS for Windows XP, Windows Vista, Windows 7
Mobile Device	Windows Phone, Blackberry, iPhone, iPad, Android
Event Transport	E-mail
Backup Interface	USB 2.0 or SATA
Audio Backup	Yes
Network	Yes
Backup Device	iWatch DVR, USB flash drive, USB DVD±RW, SATA
(Optional)	DVD±RW, blueray-R
<b>Motion Detection</b>	Sensitivity: 100 levels for each channel
	Area: Programmable individually
Event Log	Up to the 10000 events (sensor, motion, video loss, power
Z. viit Log	on, remote login, logout, HDD error, HDD full)
CIII	
GUI	32-bit true color
Multi-Language	Supported
Camera Title	Multi-language
USB Mouse	Yes
Touch Panel	Touch panel LCD monitor (USB interface, EETI chipset
	only)
Domoto C411	IR remote control
Remote Controller	
System Upgrade	USB flash drive, iWatch DVR
Hard Key	Front panel
	Control from RS-485 interface (Pelco P, Pelco D,
Pan/Tilt/Zoom	
Pan/Tilt/Zoom Control	Samsung, LG, LiLin)

**TSCR7604** 

 $2 \times USB2.0$ 

RS-485

Serial Interface

USB



#### **3G-SDI Extender with HDMI Converter**

3G-SDI extender with HDMI converter



Model	TSAT0200
Audio Support Form	aHDMI with embedded audio
Re-clocking	Yes
Function	
<b>Extension Spec</b>	Belden 1694A:
	• SD-SDI 400 m(1312 ft);
	• HD-SDI 200 m (656 ft);
	• 3G-SDI 140 m (459 ft)
Power Supply	5 V to 24 V DC/locking power connector (adaptor
	optional)
Dimensions (W × D	$120 \text{ mm} \times 57 \text{ mm} \times 36 \text{ mm} (4.72 \text{ in} \times 2.24 \text{ in} \times 1.42 \text{ in})$
× H)	
Enclosure/Weight	Metal case/0.2 kg (0.44 lb)
Operating	0 °C to 70 °C (32 °F to 158 °F)
Temperature	
Operating	10 % to 85 % RH (no condensation)
Humidity	
Storage	-20 °C to 80 °C (-4 °F to 176 °F)
Temperature	
Storage Humidity	5 % to 95 % RH (no condensation)
Power	10 W (maximum)
Consumption	

<sup>\*</sup>Design and specifications are subject to change without prior notice.

#### **Features**

- Support SDI input format:
  - o 480i, 576i, 720p at 50/60 frames per second,
  - 1080p at 24/25/30 frames per second,
  - o 1080i at 50/60 frames per second,
  - 1080p at 50/60 frames per second
- Support SMPTE 425M (A level and B level), SMPTE424M, SMPTE292M, SMPTE259M-C
- Carry 1 channel SDI signal loop out
- Maximum cable length (Belden 1694A): SD-SDI 400 m/1300 ft, HD-SDI 200 m/600 ft, 3G-SDI 140 m/450 ft
- Automatically embed SDI audio signal to HDMI signal
- User selectable output format (HDMI SDI BNC)
- 5 V to 24 V DC

Model	TSAT0200
Frequency	165 MHz/ up to standard with HDCP: HDMI 1.3
Bandwidth	
Input	1 × BNC (SD/HD/3G-SDI)
Ouput	• 1 × HDMI,
	• 1 × BNC (SD/HD/3G-SDI)
Supported	
Protocols	
Video Support	<ul> <li>480i, 576i, 720p at 50/60 frames per second,</li> </ul>
Format	<ul> <li>1080i at 50/60 frames per second,</li> </ul>
	• 1080p at 24/25/30/50/60 frames per second
Video Bandwidth	-
Data Rate	-
Output Impedance	75 ohm



#### SD/HD/3G-SDI to HDMI & CVBS Converter

SD/HD/3G-SDI to HDMI and CVBS converter



#### **Features**

- Support SDI input format: All SDI formats
  - SD:
- 525i at 59.94 frames per second,
- 625i at 50 frames per second
- HD:
  - 720p at 23.98/24/25/29.97/30 frames per second
  - 720i at 50/59.94/60 frames per second
  - 1080i at 50/59.94/60 frames per second
  - 1080p at 23.98/24/25/29.97/30 frames per second
- 。 3G:
  - 1080p at 50/59.94/60 frames per second
- Support SMPTE 425M (A level and B level), SMPTE424M, SMPTE292M, SMPTE259M-C
- Carry 1 channel SDI signal loop out
- Maximum cable length (Belden 1694A): SD-SDI 400 m (1312 ft), HD-SDI 200 m (656 ft), 3G-SDI 140 m (459 ft)
- Automatically embed SDI audio signal to HDMI signal.
- User selectable output format (HDMI and CVBS)
- 5 V to 24 V DC

Model	TSAT0300
Frequency	165 MHz/ up to standard with HDCP: HDMI 1.3
Bandwidth	
Input	$1 \times BNC (SD/HD/3G-SDI)$
Ouput	• 1 × HDMI,
	• 1 × BNC (SD/HD/3G-SDI)
	CVBS: PAL/NTSC auto detection
Supported	-

Model	TSAT0300
Protocols	
Video Support	• SD:
Format	<ul> <li>525i at 59.94 frames per second,</li> </ul>
	<ul> <li>625i at 50 frames per second</li> </ul>
	• HD:
	<ul> <li>720p at 23.98/24/25/29.97/30 frames per</li> </ul>
	second,
	<ul> <li>720i at 50/59.94/60 frames per second,</li> </ul>
	<ul> <li>1080i at 50/59.94/60 frames per second,</li> </ul>
	<ul> <li>1080p at 23.98/24/25/29.97/30 frames per</li> </ul>
	second
	• 3G:
	<ul> <li>1080p at 50/59.94/60 frames per second</li> </ul>
Video Bandwidth	-
Data Rate	-
Output Impedance	75 ohm
Audio Support	HDMI with embedded audio
Format	
Re-clocking	Yes
Function	
Extension Spec	Belden 1694A:
	• SD-SDI 400 m (1312 ft);
	• HD-SDI 200 m (656 ft);
	• 3G-SDI 140 m (459 ft)
Power Supply	5 V to 24 V DC (optional)
Dimensions (W × D	156 mm × 120 mm × 36 mm (6.14 in × 4.72 in × 1.42 in)
× H)	
Enclosure/Weight	Metal case/0.2 kg (0.44 lb)
Operating	0 °C to 70 °C (32 °F to 158 °F)
Temperature	
Operating	10 % to 85 % RH (no condensation)
Humidity	
Storage	-20 °C to 80 °C (-4 °F to 176 °F)
Temperature	
Storage Humidity	5 % to 95 % RH (no condensation)
Power	10 W (maximum)
Consumption	

 $<sup>{}^{*}\</sup>mathrm{Design}$  and specifications are subject to change without prior notice.



#### SD/HD/3G-SDI 1 to 2 Distribution Amplifier and **Extender**

SD/HD/3G-SDI 1 to 2 distribution amplifier and extender



Model	TSAT0400
Audio Support Format	
Re-clocking	-
Function	
Extension Spec	Belden 1694A:
	• SD-SDI 400 m (1312 ft);
	• HD-SDI 200 m (656 ft);
	• 3G-SDI 140 m (459 ft)
Power Supply	5 V DC, 1.5 A (optional)
Dimensions (W × D	145 mm × 80 mm × 25 mm (5.71 in × 3.15 in × 0.98 in)
× H)	
Enclosure/Weight	Metal case/0.3 kg (0.66 lb)
Operating	0 °C to 70 °C (32 °F to 158 °F)
Temperature	
Operating	10 % to 85 % RH (no condensation)
Humidity	
Storage	-20 °C to 80 °C (-4 °F to 176 °F)
Temperature	
Storage Humidity	5 % to 95 % RH (no condensation)
Power	4 W (maximum)
Consumption	

<sup>\*</sup>Design and specifications are subject to change without prior notice.

#### **Features**

• SDI standard: 3G-SDI, HD-SDI, SD-SDI

• Data rates: 270/1483/1485 Mbps

• Signal type: SMPTE 292M, SMPTE 259M

• Two separately buffered outputs

• Cable equalization (Beldon 1694A) and signal retiming

• Dual color LED indication of input lock and rate

• Pass all ancillary data

• 5 V DC, 1.5 A

TSAT0400
-
$1 \times BNC (SD/HD/3G-SDI)$
$2 \times BNC (SD/HD/3G-SDI)$
SMPTE 259M, SMPTE 292M, SMPTE 424M, SMPTE
425M
• HD:
<ul> <li>720p at 50/59.94/60 frames per second,</li> </ul>
<ul> <li>1035i at 50/59.94/60 frames per second,</li> </ul>
<ul> <li>1080i at 50/59.94/60 frames per second,</li> </ul>
<ul> <li>1080p at 24/30 frames per second</li> </ul>
• SD:
<ul> <li>NTSC at 59.94 frames per second,</li> </ul>
<ul> <li>PAL at 50 frames per second</li> </ul>
2.97 Gbps and 2.97/1.001 Gbps
270/1483/1485 Mbps
75 ohm



#### SD/HD/3G-SDI 1 to 2 Distribution Amplifier and **Extender with Re-clocking Function**

SD/HD/3G-SDI 1 to 2 distribution amplifier and extender with re-clocking



	ma + ma = a
Model	TSAT0500
Data Rate	270/1483/1485 Mbps
Output Impedance	75 ohm
Audio Support	-
Format	
Re-clocking	Yes
Function	
Extension Spec	Unlimited repeater connection
Power Supply	5 V to 24 V DC/locking power connector (optional)
Dimensions (W × D	$145 \text{ mm} \times 80 \text{ mm} \times 25 \text{ mm} (5.71 \text{ in} \times 3.15 \text{ in} \times 0.98 \text{ in})$
× H)	
Enclosure/Weight	Metal case/0.3 kg (0.66 lb)
Operating	0 °C to 70 °C (32 °F to 158 °F)
Temperature	
Operating	10 % to 85 % RH (no condensation)
Humidity	
Storage	-20 °C to 80 °C (-4 °F to 176 °F)
Temperature	
Storage Humidity	5 % to 95 % RH (no condensation)
Power	4 W (maximum)
Consumption	

<sup>\*</sup>Design and specifications are subject to change without prior notice.

#### **Features**

• SDI standard: 3G-SDI, HD-SDI, SD-SDI

• Data rates: 270/1483/1485 Mbps

• Signal type: SMPTE 292M, SMPTE 259M

• Two separately buffered outputs

• Cable equalization (Beldon 1694A) and signal retiming

• Re-clocking function capability and unlimited repeater connection

• Dual color LED indication of input lock and rate

· Pass all ancillary data

• 5 V to 24 V DC

Model	TSAT0500
Frequency	-
Bandwidth	
Input	1 × BNC (SD/HD/3G-SDI)
Ouput	2 × BNC (SD/HD/3G-SDI)
Supported	SMPTE 259M, SMPTE 292M, SMPTE 344M
Protocols	
Video Support	• HD:
Format	<ul> <li>720p at 50/59.94/60 frames per second,</li> </ul>
	<ul> <li>1035i at 50/59.94/60 frames per second,</li> </ul>
	<ul> <li>1080i at 50/59.94/60 frames per second,</li> </ul>
	<ul> <li>1080p at 24/30 frames per second</li> </ul>
	• SD:
	<ul> <li>NTSC at 59.94 frames per second,</li> </ul>
	<ul> <li>PAL at 50 frames per second</li> </ul>
Video Bandwidth	2.97 Gbps and 2.97/1.001 Gbps
	I



#### SD/HD/3G-SDI 1 to 4 Distribution Amplifier

SD/HD/3G-SDI 1 to 4 distribution amplifier



Model	TSAT0600
Data Rate	
Output Impedance	75 ohm
Audio Support	-
Format	
Re-clocking	Yes
Function	
Extension Spec	Belden 1694A
	• SD-SDI 400 m (1312 ft);
	• HD-SDI 200 m (656 ft);
	• 3G-SDI 140 m (459 ft)
Power Supply	5 V to 24 V DC/locking power connector (optional)
Dimensions (W × D	$145 \text{ mm} \times 80 \text{ mm} \times 25 \text{ mm} (5.71 \text{ in} \times 3.15 \text{ in} \times 0.98 \text{ in})$
× H)	
Enclosure/Weight	Metal case/0.3 kg (0.66 lb)
Operating	0 °C to 70 °C (32 °F to 158 °F)
Temperature	
Operating	10 % to 85 % RH (no condensation)
Humidity	
Storage	-20 °C to 80 °C (-4 °F to 176 °F)
Temperature	
Storage Humidity	5 % to 95 % RH (no condensation)
Power	10 W (maximum)
Consumption	

<sup>\*</sup>Design and specifications are subject to change without prior notice.

#### **Features**

- Support SD-SDI (270 Mbps), HD-SDI (1.485 Gbps) and 3G-SDI (2.97
- Full HD video format
- Built-in cable equalizer, re-clocker and cable driver
- Maximum cable length (Belden 1694A): SD-SDI 400 m (1312 ft), HD-SDI 200 m (656 ft), 3G-SDI 140 m (459 ft)
- Excellent SDI signal jitter suppression function
- Power supply and SDI signal format indicator
- Embedded ESD to protect the circuit
- 5 V to 24 V DC

Model	TSAT0600
Frequency	-
Bandwidth	
Input	1 × BNC (SD/HD/3G-SDI)
Ouput	4 × BNC (SD/HD/3G-SDI)
Supported	SMPTE 259M, SMPTE 292M, SMPTE 424M, ITU-R
Protocols	BT.601, ITU-R BT.1120
Video Support	• SD-SDI:
Format	。 480i, 576i
	• HD-SDI:
	<ul> <li>720p at 24/25/30/59/59.94/60 all frame</li> </ul>
	rate;
	<ul> <li>1080i all frame rate, 1035i all frame rate;</li> </ul>
	<ul> <li>1080p all frame rate</li> </ul>
	• 3G-SDI:
	<ul> <li>1080p all frame rate</li> </ul>
Video Bandwidth	Auto suppport 270 Mbps/1.485 Gbps/2.97 Gbps