Data sheet

SDSC

4:4:4
18 Gbps
4K@60hz

Product: SDSC-3001
USB KVM extender

Flexible and comprehensive professional USB 2.0 KVM extender with CAT 6 distribution system for Commercial, Education and Residential use

Digital Stream Compression

- 70m CAT 6/6A STP/FTP
- HDMI resolutions 4K, 2K &1080p
- Full duplex RS232 pass through
- Bi-directional IR pass through
- CEC compliant

- HDBaseT 2 technology
- HDMI 2.0 4K@60Hz
- 4:4:4, 18G, HDR10, Dolby Vision
- HDCP 2.2/1.4 compliant
- Digital Stream compression

- Dual USB port on receiver
- Mounting brackets
- Secure DC connection
- POC (remote powering)
- Very slim profile 18mm

Distribute high resolution 4K UHD HDMI video together with USB 2.0, IR and RS232 a single CAT 6 cable up to 70m

The **SDSC-3001** is a flexible and cost effective KVM extender for HDMI, USB 2.0, bi-directional IR, full duplex RS232 together with Power Over Cable (POC). Consisting of a transmitter/receiver pair, both units are compact and come with mounting brackets. By incorporating the full HDBaseT2 technology 4K UHD HDMI signals can be transmitted up to 70m.

The KVM extender pair is capable of distributing HDMI, HDR10 signals up to 4K UHD resolutions @4:4:4 colour sub-sampling to 70m of Cat 5e-6 cable. By implementing the HDBaseT2 specification the extender pairs also provides the pass through of wide band bi-directional InfraRed signals and full duplex RS232 up to 115Kbaud.

USB 2.0 extension is achieved by harnessing the HDBaseT2 protocol. An internal USB hub in the **SDSC-RX3001** receiver allows connections of 2 peripherals, ideal for keyboard and mouse applications or any USB 2.0 devices like video camera or touch screens.

Each unit is powered via a single 24V PSU which can also power the other remote device through the same cable. The compact size of the housings enables ease of installation together with removable mounting brackets.

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TECHNICAL SPECIFICATION

Video – Digital

Connectors	HDMI (Type A) input/output
Signal type	HDMI - TMDS
Standards	HDMI 2.0. HDCP 2.2/1.4
Maximum data rate	4.5Gbps per colour
Maximum pixel clock	340MHz
Resolution range - DTV	Max 4096x2160 @60Hz 36 bit colour depth
Resolution range - PC	Max 1920x1200 @60Hz 24 bit colour depth
Frame rate	24, 25, 30, 50 & 60 Hz
Gain	0 dB
Formats	RGB and YCrCb
Colour space	4:4:4, 4:2:2 & 4:2:0
Clock jitter	<0.15T bit
Rise time	<0.3T bit (20-80%)
Fall time	<0.3T bit (20-80%)
Maximum transmission delay	5ns (+/- 1ns)
Signal strength	TMDS +/- 0.4V pk-pk
TMDS signal level	2.9V – 3.3V
Impedance	50R
Maximum DC offset	15mV
Maximum input cable length	15m 24 AWG
Maximum output cable length	15m 24 AWG

Audio – Digital

Standards	Embedded within the HDMI signal, SPDIF
Maximum audio channels	8
Maximum sample rate per channel	192 kHz
Sample size	16-24 bits

Power

DC Voltage	External 24V PSU
DC connector	2.1mm jack with screw fitting
AC Voltage (External Supply)	100-230 VAC
AC frequency (External Supply)	50/60 Hz
Power consumption	14W (max)/1.2W (standby)
Operating temperature	0-40 degrees C
Storage temperature	-20-60 degrees C
Relative humidity	20-90%
Dimensions (each unit)	165x88x18mm
Dimensions with brackets (each unit)	190x88x18mm
Product weight	0.5Kg
MTBF	30,000 hours

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TECHNICAL SPECIFICATION

Passthrough – USB

Connectors	USB (Type A) input/(Type A) output
Signal type	USB
Standards	USB 2.0.
Maximum data rate	480 Mbit/s

Passthrough – RS232

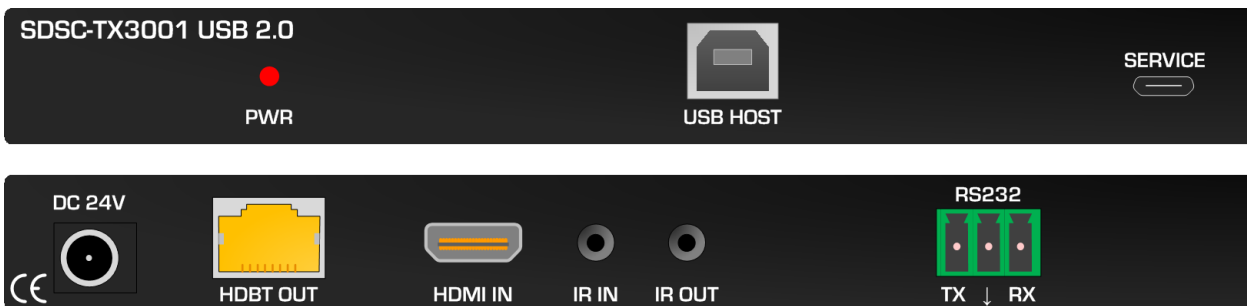|	
Connector	3pin Phoenix
Signal type	Full duplex
Signal level	+/- 5V
Baud rate	115200
Data bits	8
Stop bits	1
Parity	None
Pinout	1-TX, 2-0V, 3-RX

Passthrough – IR

Connector	3.5mm mini-jack socket
Signal type	Full duplex (via 2 connections)
Signal bandwidth	20-60KHz

Cat cable connectivity

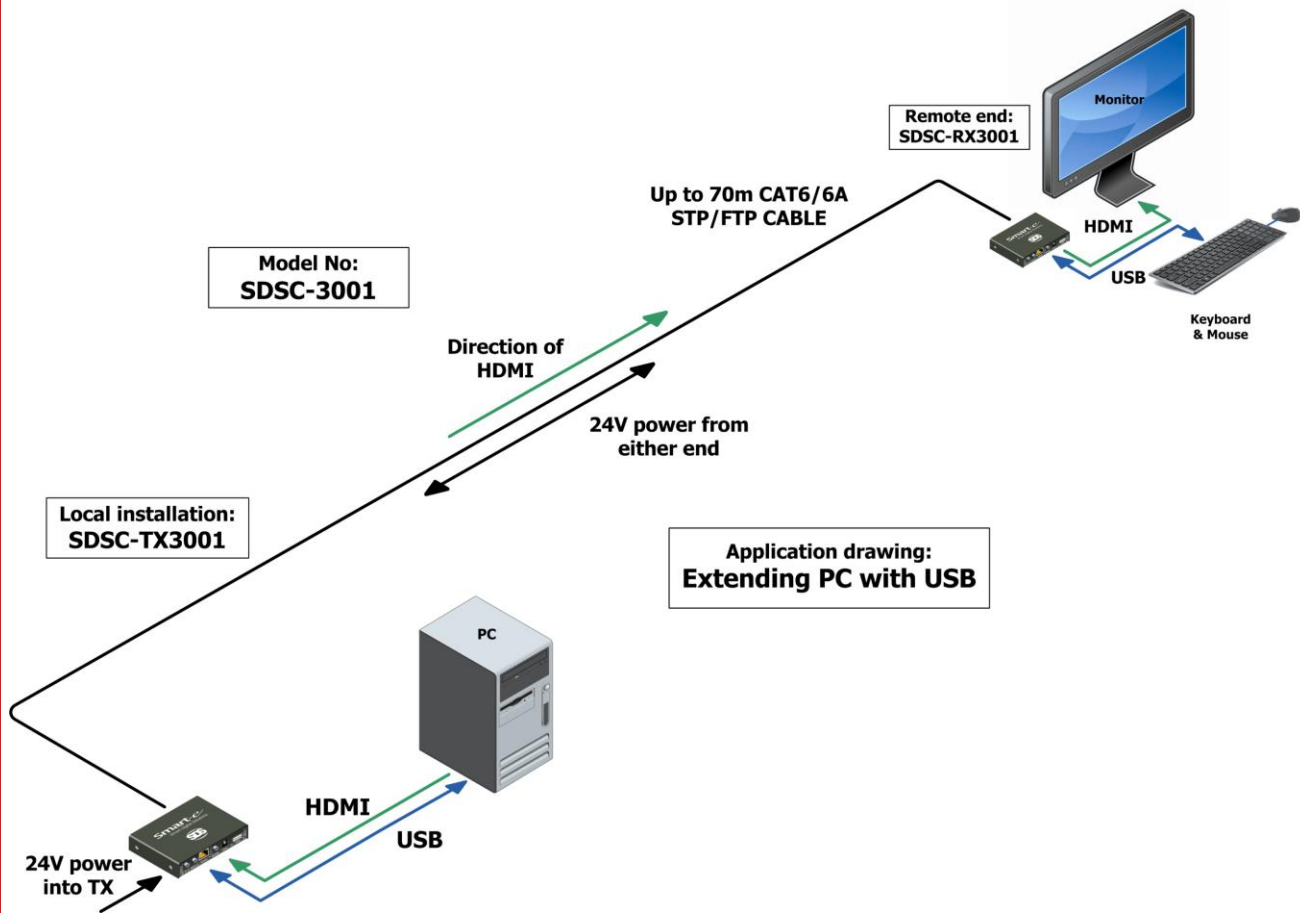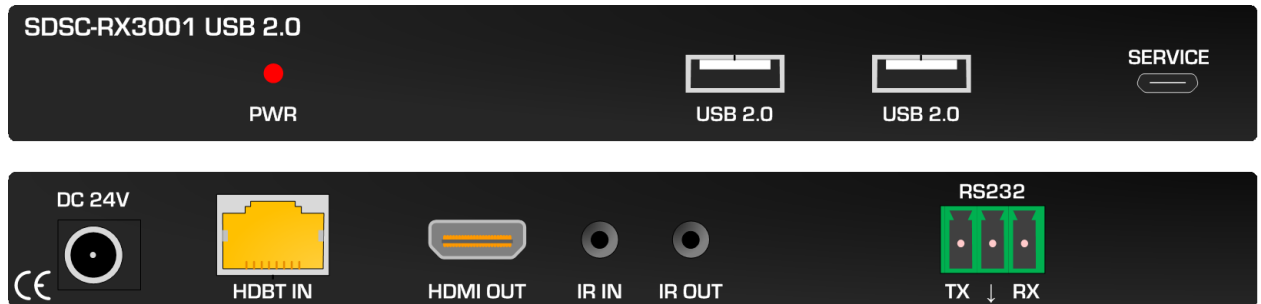|	
Number of cables	1 x Cat 6/6A screened twisted pair cables
Connectors	1 x female screened RJ45 connectors per unit
Termination standard	TIA/EIA T568B
Cable requirements	Solid conductor, 24 AWG or better
Cable recommendations	400 MHz bandwidth STP (shielded twisted pair)
Transmission distance	70m shielded twisted pair CAT 6 or CAT 6A

TX PANEL DRAWING

SDSC-TX3001 USB 2.0

PWR

USB HOST

SERVICE

DC 24V

HDBT OUT

HDMI IN

IR IN

IR OUT

RS232

TX ↓ RX

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USB KVM extender

APPLICATION DRAWING

Remote end:
SDSC-RX3001

Monitor

HDMI

USB

Keyboard & Mouse

Up to 70m CAT6/6A STP/FTP CABLE

Model No:
SDSC-3001

Direction of HDMI

24V power from either end

Local installation:
SDSC-TX3001

Application drawing:
Extending PC with USB

PC

HDMI

USB

24V power into TX

RX PANEL DRAWINGS

SDSC-RX3001 USB 2.0

PWR

USB 2.0   USB 2.0

SERVICE

DC 24V

HDBT IN   HDMI OUT   IR IN   IR OUT

RS232

TX ↓ RX

specifications are subject to change without notice