2x1 USB 3.2 Switcher with HDBT Receiver

Model:

HDBT-SWUSB3R-100M

rev.2024.07Jul.04

User Operation Guide

OVERVIEW

The 100M USB 3.2 Gen 1 extender is designed to transmit USB signal up to 100m distance. HDBT-SWUSB3R-100M is the device port of the extender, it contains four USB ports. Applications include extending USB 3 conferencing cameras, video capture devices, and audio devices for boardrooms and conference rooms. It is also ideal for use with all USB peripherals in addition to USB 3.2 Gen 1 conference cameras including: flash drives, hard drives, keyboards, mice, interactive white boards, touchscreens, audio devices, and other USB 3.2 Gen1 devices.

PRODUCT FEATURES

- USB3.2 Gen1 data transfer rate up to 5Gbps;
- Support extend USB signal up to 100m;
- Support RS232 pass-through/control/upgrade;
- Support USB device power management;
- Bi-directional 24V PoC power supply.

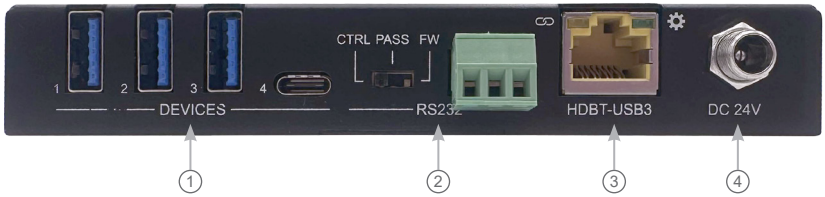
PANEL DESCRIPTIONS

Front Panel

No.	Name	Description
1	Power LED	The LED illuminates green when the unit is power on.
2	PoC	1x DIP switch, turn on/off the PoC.

PANEL DESCRIPTIONS

Rear Panel



No.	Name	Description
1	Devices	3x USB-A and 1x USB-C 3.2 gen1 for connecting KVM devices, cameras or other USB devices. Devices share 3A current limit, single port power supply maximum limit 1.7A.
2	RS232	1x 3-pin DIP switch for select the RS232 port function. CTRL: Control the unit via sending the RS232 commands. PASS: RS232 pass-through. FW: Firmware upgrade.
3	HDBT-USB3	1x RJ45 port for connecting with the device unit of the extender. The yellow light indicates the connection status of the HDBT, and the green LED is the data light.
4	DC 24V	DC barrel port for DC24V 1.5A power adapter connection.

SYSTEM OPERATIONS

System Connection

Usage Precaution

- Make sure all components and accessories included before installation.
- System should be installed in a clean environment with proper temperature and humidity.
- All of the power switches, plugs, sockets, and power cords should be insulated and safe
- All devices should be connected before power on.

SYSTEM OPERATIONS

RS232 Control

Connect the RS232 port to control device (e.g. PC) with RS232 cable. The switcher can be controlled by sending RS232 commands.

RS232 Control Software

- Installation: Copy the control software file to the control PC.
- Uninstallation: Delete all the control software files in corresponding file path.

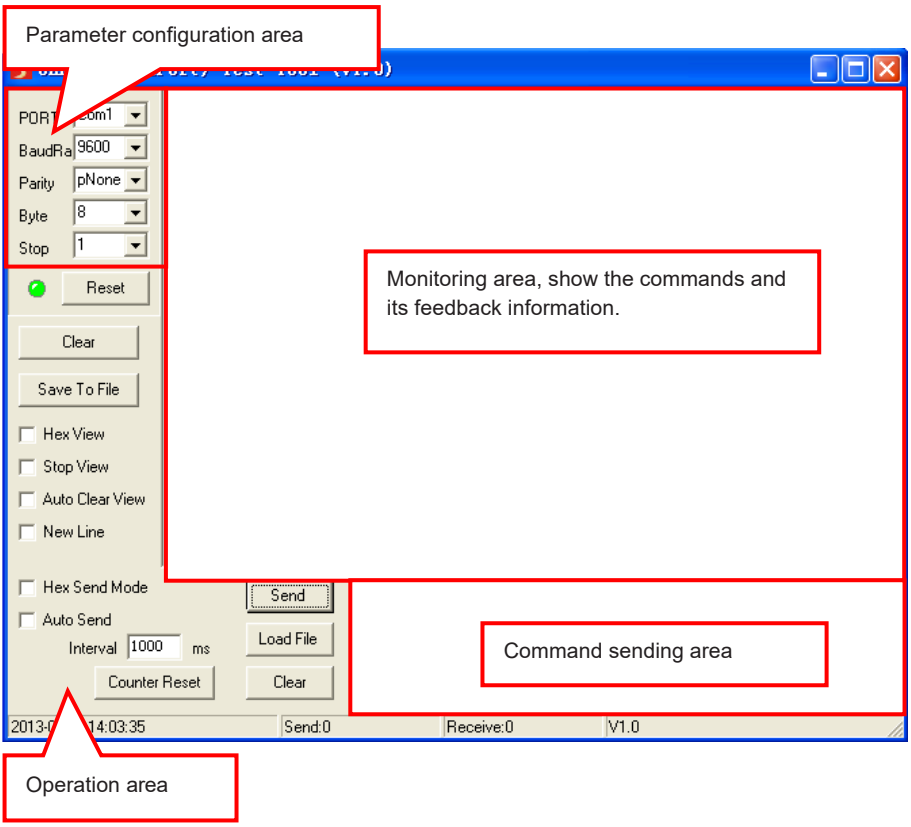
Basic Setting:

Connect the switcher with all input devices and output devices needed, then to connect it with a PC which is installed with RS232 control software. Double-click the software icon to run this software.

Here takes the software **CommWatch.exe** as an example:

CommWatch.exe

The main view is shown as below:



SYSTEM OPERATIONS

Please set the parameters of COM number, baud rate, data bit, stop bit and the parity bit correctly, and then you will be able to send command in command sending area.

RS232 Command

Communication protocol: RS232 Communication Protocol Baud rate: 9600 Data bit: 8 Stop bit: 1 Parity bit: none

Note: *All commands need to be ended with "<CR><LF>".*

System Control

Command	Description	Example & Command Feedback
>Help	Query commands	>Help

>GetStatus	Query status	>GetStatus
		< HDBT-SWUSB3R-100M <FW Version: V1.0.0b <Device Power Follow Host Mode On <Device1 Power On <Device2 Power On <Device3 Power On <Device4 Power On <SetRS232Baud: 9600
>Reboot	Restart the unit	>Reboot
		<Reboot < HDBT-SWUSB3R-100M <FW Version: V1.0.0b <Device Power Follow Host Mode On

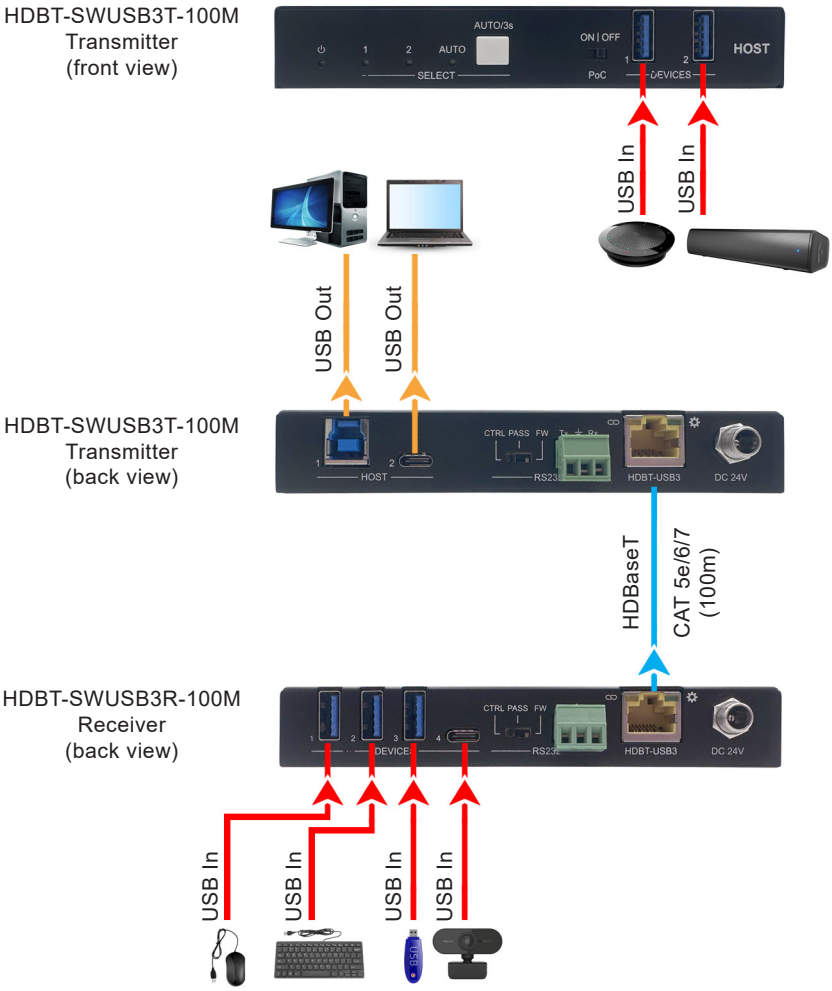
SYSTEM OPERATIONS

		<Device1 Power Off <Device2 Power Off <Device3 Power Off <Device4 Power Off <SetRS232Baud: 9600
>FactoryReset	Factory default the unit	>FactoryReset <FactoryReset < HDBT-SWUSB3R-100M <FW Version: V1.0.0b <Device Power Follow Host Mode On <Device1 Power Off <Device2 Power Off <Device3 Power Off <Device4 Power Off <SetRS232Baud: 9600
>SetDeviceFollow [Param1]	Set the devices power mode: Param = On (Follow mode, turn off the power when no host connect) Param = Off (Always on, always provide the power to devices)	>SetDeviceFollow On <Set Device Power Follow Host Mode On
>GetDeviceFollow	Query devices power mode	>GetDeviceFollow <Device Power Follow Host Mode On
>SetRS232Baud	Set the baud rate of the unit. Param = 9600(default), 19200, 38400, 57600, 115200	>SetRS232Baud 9600 <SetRS232Baud: 9600

SYSTEM OPERATIONS

>SetDevicePower [param1][param2]	Control the devices power supply on/off Param1 = 00~04 00: All devices 01~04: Device1~ Device4 Param2 = On/Off	>SetDevicePower 0 Off <Set All Device Power Off
>GetDevicePower	Query devices power status	>GetDevicePower <Device1 Power On <Device2 Power On <Device3 Power Off <Device4 Power Off

DIAGRAM


HDBT-SWUSB3T-100M
Transmitter
(front view)
AUTO/3s
AUTO
SELECT
ON | OFF
PoC
HOST
DEVICES
USB In
USB In
USB Out
USB Out
HDBT-SWUSB3T-100M
Transmitter
(back view)
HOST
CTRL PASS FW
RS232
HDBT-USB3
DC 24V
HDBaseT
CAT 5e/6/7
(100m)
HDBT-SWUSB3R-100M
Receiver
(back view)
DEVICE
USB In
USB In
USB In
USB In

TECHNICAL SPECIFICATIONS

Devices	3 x USB [Type A] 1 x USB [Type C]
Devices Power	Devices share 3A current limit; Single port power supply maximum limit 1.7A
USB Version	USB 3.2 Gen1
Control	1 x RS232 (3 Pin 3.5mm Terminal Block)
Transmission distance	Up to 100m with CAT6A cable
PoC standard	Bi-directional 24V PoC
Data Rate	5Gbps
Operation Temperature	-10°C ~ +55°C
Storage Temperature	-25°C ~ +70°C
Relative Humility	10% ~ 90%
External Power Supply	DC 24V 1.5A (Does not comes with Power Adaptor)
Power Consumption	19W (Max)
Dimension (W*H*D)	133.0mm x 21.5mm x 105.0mm
Net Weight	340g

ABTUS
SINGAPORE