Specifications

Audio and Video	
Inputs	1x VGA In: 15-pin VGA 1x Audio In: 3.5mm (1/8in) TRS Stereo 2x HDMI In: 19-pin type A 1x USB-C Wireless Video from Airplay or Miracast Source
Outputs	2x HDMI Out: 19-pin type A 1x Mirrored HDBT Out: 8-pin RJ-45 Female (mirrors output 1) 1x Audio Out: 3.5mm (1/8in) TRS Stereo
Video Encoding	HDBaseT Class B
Encoding Data Rate	9.2Gbps
Output Latency	80 ~ 250ms (varies with content)
Audio Formats	2ch Analog	PCM

Video Resolutions (Max)	Video Resolutions	Wired Input/Output	HDBT Output Cat6/6a
	VGA & Casting: 1920x1080p @60Hz 8bit	**VGA:** 8m/26.2ft	40m/131ft (4K @30Hz)
	HDMI & USB-C: 3840x2160p @30Hz 8bit 4:4:4	**HDMI/USB-C:** 7m/22.9ft	70m/230ft (1080p @60Hz)

Supported Standards	DCI	RGB
Maximum Pixel Clock	300MHz

Communication and Control	
HDMI	HDMI	HDCP 2.2	EDID	DVI/D supported with adapter (not included)	CEC
HDBaseT	HDMI	HDCP 2.2	EDID	CEC	USB	RS-232
USB	3 x USB 2.0 Type A device ports	5v 500mA per port 2 x USB 2.0 Type B host ports (assignable) USB bandwidth over HDBaseT limited to 190Mbps
RS-232	1x RS-232 (Control): 4-pin Phoenix	Provides 12V Power 1x RS-232 (Passthrough): 4-pin Phoenix	Provides 12V Power
Ethernet	1x 8-pin RJ-45 female
Wireless	2 x Wi-Fi Antennas	IEEE 802.11 a/b/g/n/ac	Dual-band 2.4 & 5GHz	WEP, TKIP, AES, WPA, WPA2 2.4GHz EIRP < 20dBm 5.150~5.250GHz EIRP < 23dBm 5.725~5.850GHz EIRP < 13.98dBm

Power	
Power Supply	12V DC 2A
Max Power Consumption	24W

Environmental	
Operating Temperature	0 to + 45°C (32 to + 113 °F), 10% to 90%, non-condensing
Storage Temperature	-20 to +70°C (-4 to + 158 °F), 10% to 90%, non-condensing
Max BTU	82 BTU/hr

Dimensions and Weight	
Rack Units/Wall Box	<1U
Height	25mm/0.98in (Antennas Excluded)	180mm/7.08in (Antennas Included)
Width	215mm/8.46in (Antennas Excluded)	215mm/8.46in (Antennas Included)
Depth	140.2mm/5.51in (Antennas Excluded)	180mm/7.08in (Antennas Included)
Weight	0.97kg/2.13lbs

Regulatory	
Safety and Emission	CE	FCC	RoHS	RCM	EAC

Note: WyreStorm reserves the right to change product specification, appearance or dimensions of this product at any time without prior notice.

Warranty Information

WyreStorm Technologies LLC warrants that its products to be free from defects in material and workmanship under normal use for a period of five (5) years from the date of purchase. Refer to the Product Warranty page on wyrestorm.com for more details on our limited product warranty.

4-Input 4K HDBaseT Presentation Switcher with Matrix Outputs, USB 2.0, Multiview & Wireless Casting

SW-540-TX-W

WyreStorm.

Quickstart Guide

WyreStorm recommends reading through this document in its entirety to become familiar with the product's features before beginning the installation process.
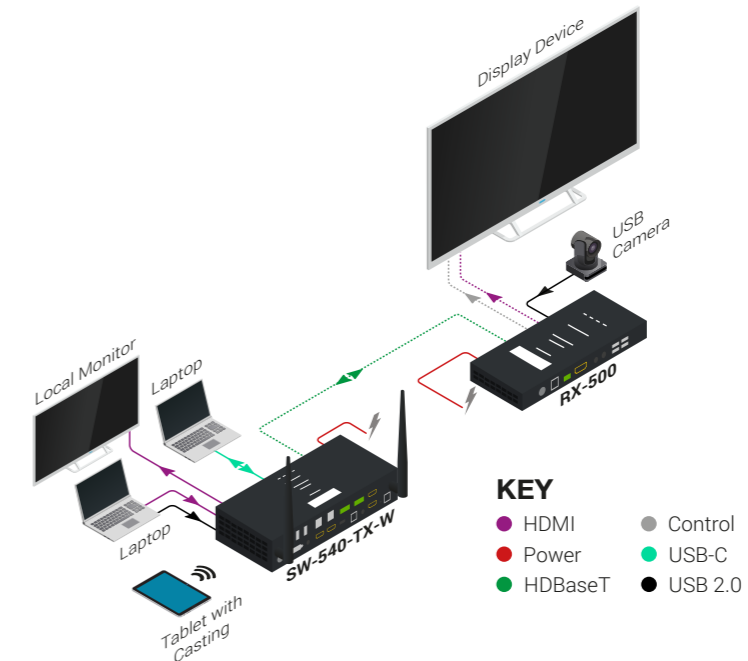
IMPORTANT! Installation Requirements
- Read through the Wiring and Connections section for important wiring guidelines before creating or choosing premade cables.
- While this product supports CEC, WyreStorm cannot guarantee compatibility with all forms of CEC communication.
- Visit the product page to download the latest firmware, document version, additional documentation, and configuration tools.

In the Box
1x SW-540-TX-W Transmitter
1x 12V 2A Power Supply (US/UK/EU/AU)
2x 4-pin Terminal Blocks
2x Mounting Brackets with Screws
1x Quickstart Guide (This Document)

Basic Wiring Diagram

KEY
- HDMI
- Power
- HDBaseT
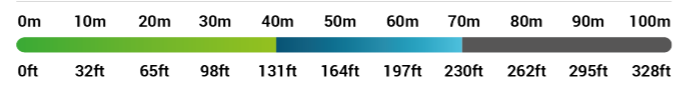- Control
- USB-C
- USB 2.0

Wiring and Connections

WyreStorm recommends that all wiring for the installation is run and terminated prior to making connections to the switcher. Read through this section in its entirety before running or terminating any wires to ensure proper operation and to avoid damaging the equipment.

⚠ **IMPORTANT! Wiring Guidelines**
- The use of patch panels, wall plates, cable transmitters, kinks in cables, and electrical or environmental interference will have an adverse effect on signal transmission which may limit performance. Steps should be taken to minimize or remove these factors completely during installation for best results.
- WyreStorm recommends using pre-terminated VGA, HDMI, DP and USB cables due to the complexity of these connector types. Using pre-terminated cables will ensure that these connections are accurate and will not interfere with the performance of the product.

- This product contains a USB-C connection that can be used as an audio/video input. When using this connection verify that the USB-C cable used supports audio/video functionality as not all USB-C cables support this requirement.
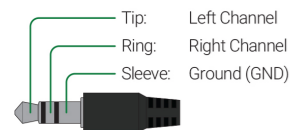
Cat6 Cable Performance Guide

0m	10m	20m	30m	40m	50m	60m	70m	80m	90m	100m
0ft	32ft	65ft	98ft	131ft	164ft	197ft	230ft	262ft	295ft	328ft

🟩 **4K** Transmission 🟦 **HD** Transmission

WyreStorm recommends the use of shielded cable to minimize signal noise and interference

Audio Connections

The audio connections use a 3.5mm (1/8in) TRS Stereo Jack.

Tip: Left Channel
Ring: Right Channel
Sleeve: Ground (GND)

Communication Connections

RS-232 Wiring
The SW-540-TX-W uses a 3-pin RS-232 with no hardware flow control. Most control systems and computers are DTE where pin 2 is RX, this can vary from device to device. Refer to the documentation for the connected device for pin functionally to ensure that the correct connections can be made.

PC Connection
Connection to a PC uses the RS-232 Control connection and requires the use of a USB to 3-pin Port Adapter cable (CAB-USB-3PIN) in order for a port to be provided on the PC. Note that this adaptor can be used on both v1 and v2 versions.

RS-232 Passthrough

WyreStorm Connector			3rd Party Device
Pin 1	12V DC Out	No Connection	Reserved
Pin 2	TX (Transmit)	---> To --->	RX (Receive)
Pin 3	RX (Receive)	---> To --->	TX (Transmit)
Pin 4	G (Ground)	---> To --->	G (Ground)

RS-232 Control

WyreStorm Connector			3rd Party Device
Pin 1	12V DC Out	No Connection	Reserved
Pin 2	TX (Transmit)	---> To --->	RX (Receive)
Pin 3	RX (Receive)	---> To --->	TX (Transmit)
Pin 4	G (Ground)	---> To --->	G (Ground)

Setup and Configuration
The SW-540-TX-W is configured using RS-232 or IP commands. Follow these steps to properly configure the transmitter based on the system requirement.

Note: The steps and information provided in this QSG are for basic operation of the transmitter out of the box. Refer to the SW-540-TX-W API for full configuration settings.

1. Assign a Static IP Address to ensure proper communication on an IP Network.
2. Set EDIDs to be used at each input of the device.

Communication Settings
The SW-540-TX-W contains a web UI that can be accessed by connecting to a network and entering the IP address. We recommend that the IP address is changed from default before accessing the web UI for the first time.
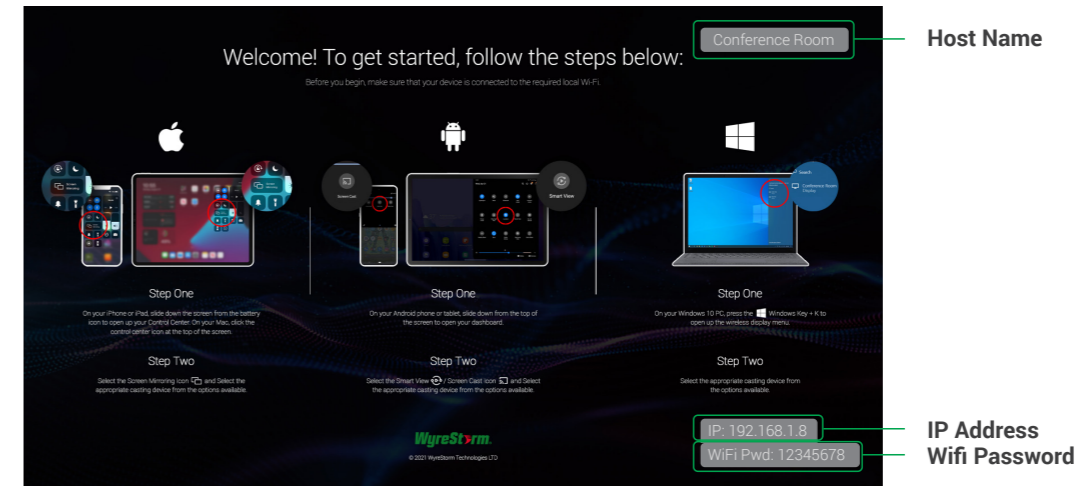
RS-232 and IP Settings

Baud rate:	115200
Data Bits:	8bits
Parity:	None
Stop Bits:	1bit
Flow Control:	None
Default IP Address	DHCP
Default IP Port	24

Guide Screen
The switcher uses a Guide Screen to convey the basic connection instructions for user access.
The Guide Screen can be personalized to allow custom connection instructions on the switcher's Web UI page.

Host Name
IP Address
Wifi Password

Troubleshooting

No or Poor Quality Picture (snow or noisy image)
- Verify that power is being supplied to the transmitter and receiving device.
- Verify that all HDMI and HDBaseT connections are not loose and are functioning properly.
- Verify that the HDBaseT cable is properly terminated following EIA568B standard.
- Verify that the output resolution of the source and display is supported by this transmitter.
- Configure EDID Settings to a lower resolution.
- If transmitting 3D or 4K, verify that the HDMI cables used are 3D or 4K rated.

No or Intermittent 3rd party Device Control
- Verify that the IR, RS-232, and Ethernet cables are properly terminated following the Wiring and Connections section.

Relays Not Functioning
- Verify polarity of the relay connections.

💡 **Troubleshotting Tips**
- WyreStorm recommends using a cable tester or connecting the cable to other devices to verify functionality.

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