

TX2 TABLE HUB
DX2 ROOM HUB

Product Overview

TX2 Table Hub & DX2 Room Hub Interconnectivity System

AV Technology from **ab.** Ashton Bentley.

Introduction.

A simple low cost two-box solution providing the complete audio-visual infrastructure for meeting rooms.

Designed to partner with the latest Video Conferencing solutions, the boxes replace the traditional rack of AV equipment.

Providing USB-C and HDMI connectivity, signal routing and control.

A complete meeting room solution in two boxes

Introducing the **TX2 Table Hub** & **DX2 Room Hub**

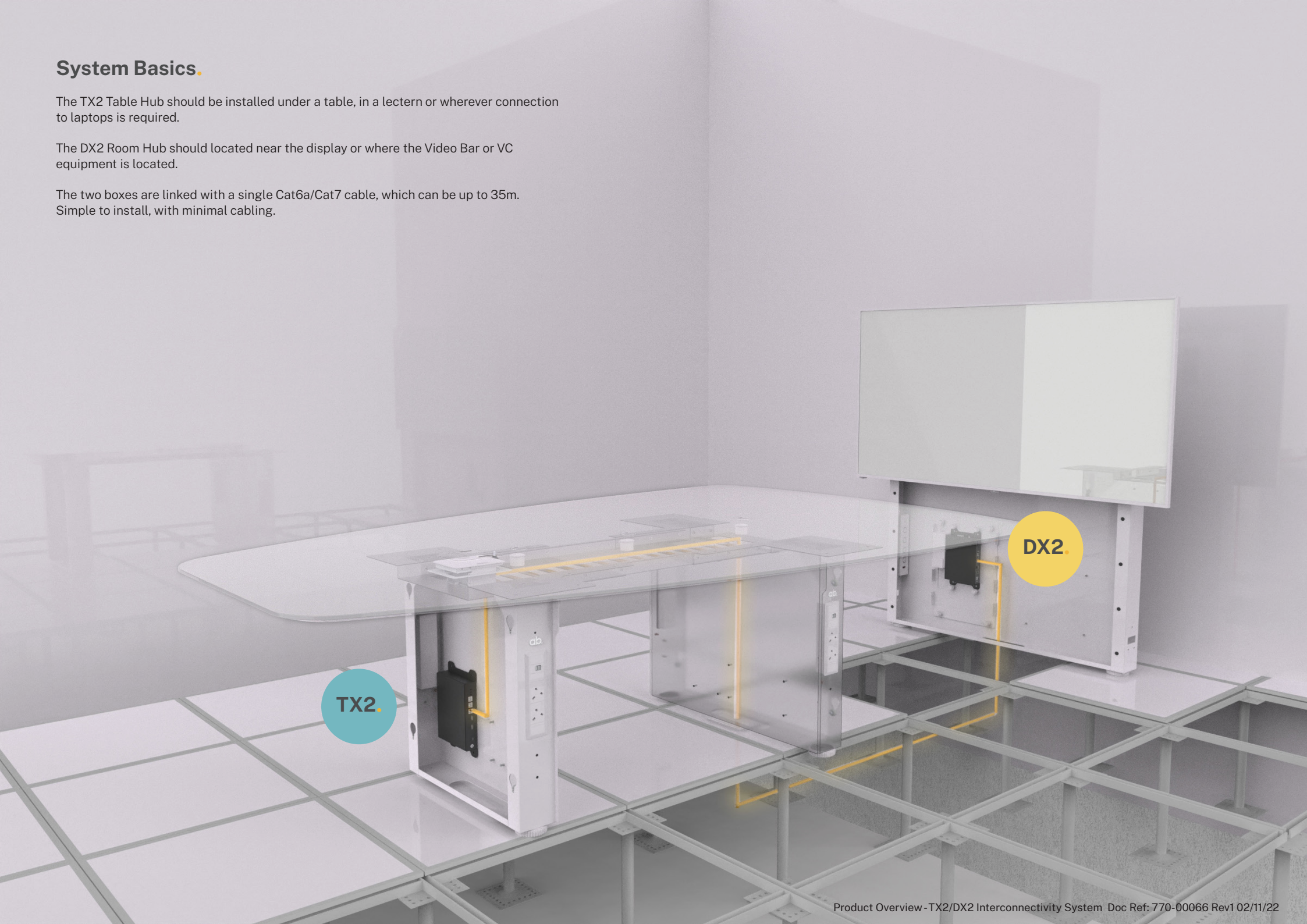


System Basics.

The TX2 Table Hub should be installed under a table, in a lectern or wherever connection to laptops is required.

The DX2 Room Hub should be located near the display or where the Video Bar or VC equipment is located.

The two boxes are linked with a single Cat6a/Cat7 cable, which can be up to 35m. Simple to install, with minimal cabling.





TX2 Table Hub.

Designed to connect USB-C and HDMI inputs over distance to the DX2 Room Hub

- Fully featured USB-C and HDMI connectivity with input signal sensing
- Uncompressed 4K60 4:4:4 resolution video routing / transmission
- Independent EDID control of each input
- HDCP support or blocking
- Independently scalable HDMI output port for local monitor or content ingest
- Network port through to USB-C device
- USB 2.0 with up to 350 Mbit/s data rate
- ABNET control connection for AB Tablebox touch panel
- Cat6a/Cat7 link to DX2 (powered from DX2 via this link)
- Input for optional USB-C laptop charging



DX2 Room Hub.

Provides system/display control and signal routing.

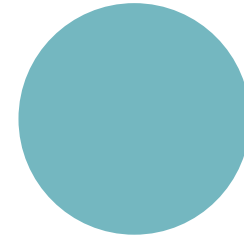
Works with most video conferencing products and traditional codecs. Video loudspeaker bars are supported either in Bring Your Own Device (BYOD) mode, embedded Teams/Zoom engine, or both.

On-board platform, ABSee, monitors all functionality and connectivity with data available for 3rd party management platforms to simplify maintenance and support. ABSee data available with separate licence. Contact Ashton Bentley for details.

- Uncompressed 4K60 4:4:4 resolution on inputs and outputs
- Cat6a/Cat7 link to TX2 (Video, audio, USB and Control) up to 35m
- System Configuration via internal web server for set-up and control
- 2 Auxiliary HDMI input ports with input signal sensing
- 2 independently scalable HDMI output ports
- Independent EDID control of each input
- HDCP selectable for each input
- 3 USB device ports, 2 with configurable power control
- ABNET for connection of AB peripheral devices
- Programmable CEC screen control
- 2 Programmable RS232 display control ports
- Programmable Cisco codec control port
- Programmable RS232 3rd party control system port
- OLED status display
- External Universal PSU (specify country for correct mains cable)



TX2 Table Hub Connectivity Overview.



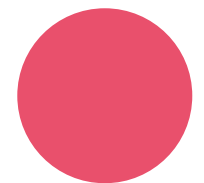
Connection	Type	Function
ABNET	RJ45	Serial / Power connection to AB Peripherals
NETWORK	RJ45	1 Gbps or 10/100/1000Mbps (To USB-C connected device)
To DX2	RJ45	Cat6a/Cat7 Interconnection to DX2
OUTPUT	HDMI	To local display or ingest on device
INPUT 2	HDMI	Connection to Input Laptop/Device
INPUT1	USB-C	Connection to Input Laptop/Device
24V DC USB-C PWR	DC Power Jack	24v Power Input (USB-C Charge)

Status LED's

The TX2 has status LED indicators to show active connections, and help diagnose potential problems:

- PWR – Power live
- DX2 Link -link to DX2 active
- FW - Firmware health (engineering)

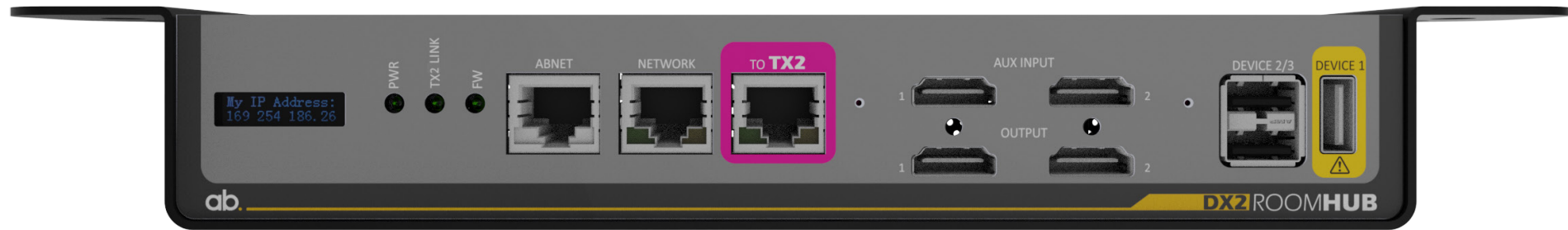




DX2 Room Hub Connectivity Overview.



Connectivity Plate 1



Connection	Type	Function
ABNET	RJ45	Serial / Power connection to AB Peripherals
NETWORK	RJ45	1 Gbps or 10/100/1000Mbps (For system management)
To TX2	RJ45	Cat6a/Cat7 Interconnection to TX2
OUTPUT1	HDMI	Connection to Video Bar or Display
OUTPUT 2	HDMI	Connection to Video Bar or Display
AUX INPUT 1	HDMI	Auxiliary Input 1
AUX INPUT 2	HDMI	Auxiliary Input 2
DEVICE 2/3	USB-A	USB-A with 5v Power (switched under DX2 control)
DEVICE 1	USB-A	USB-A with 5v (non-switched)

OLED Display

Displays:

- IP Address
- Gateway
- Subnet Mask
- Firmware Version



DX2 Room Hub Connectivity Overview.

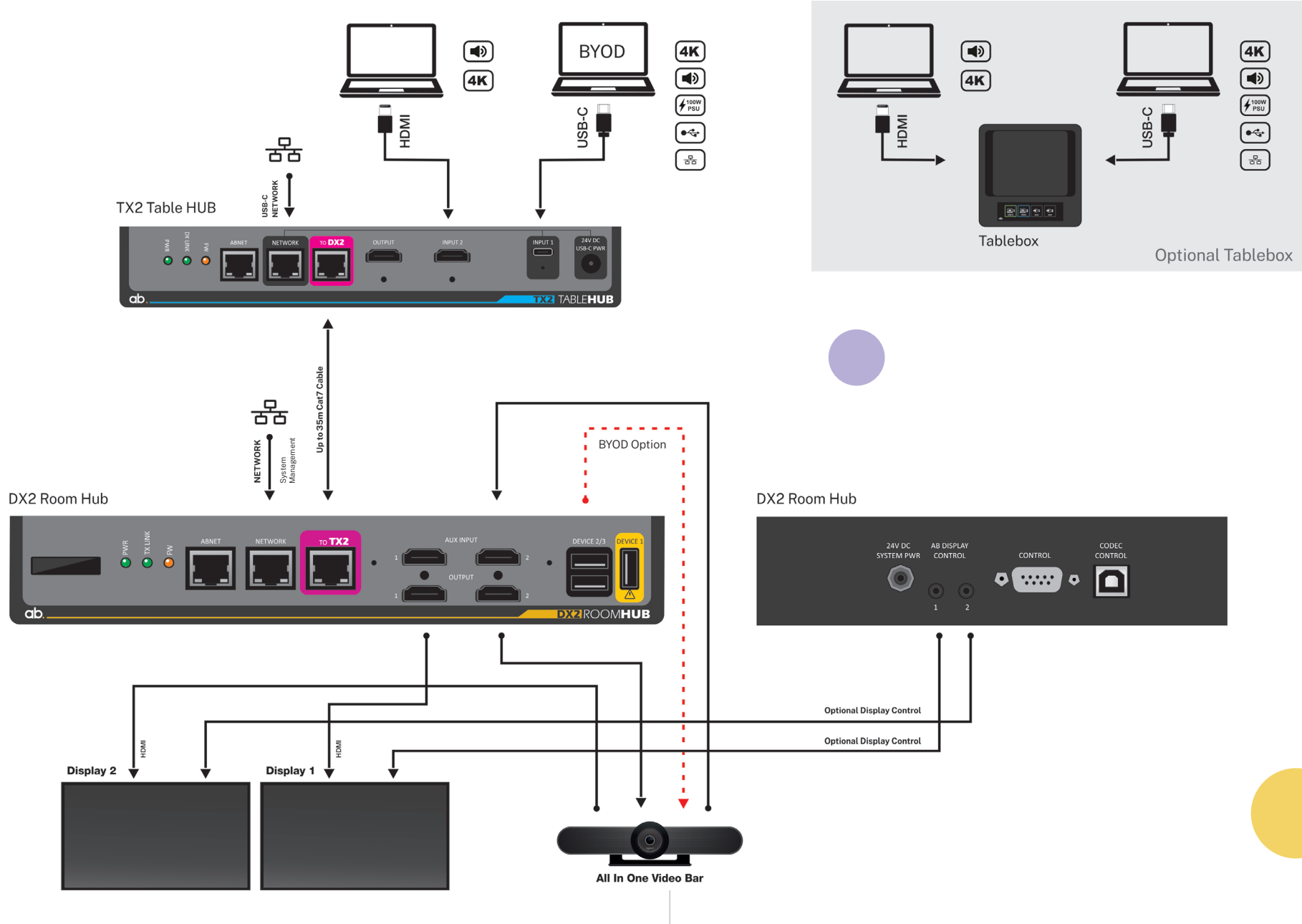
Connectivity Plate 2



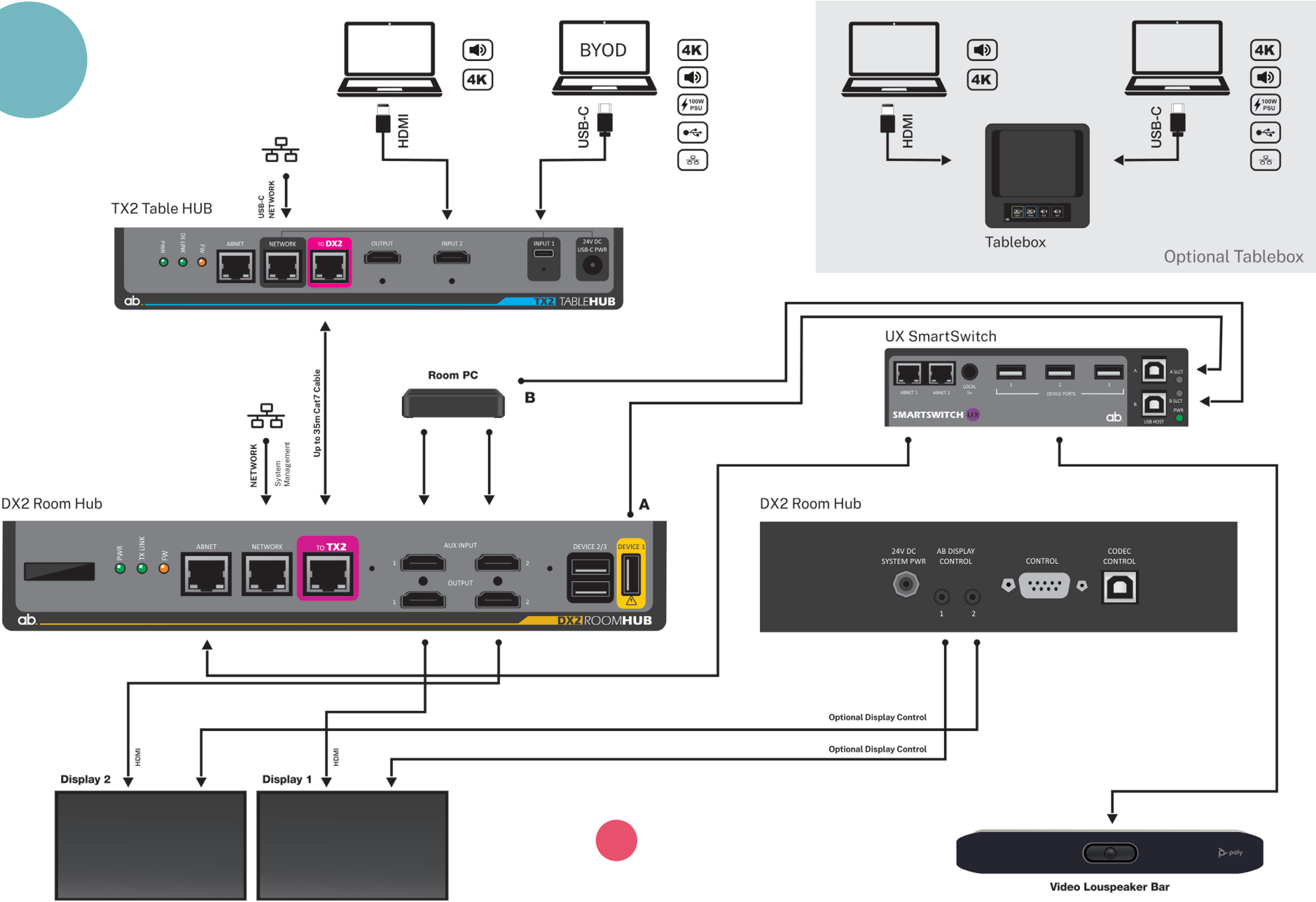
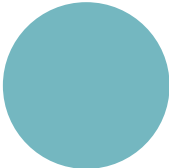
Connection	Type	Function
24v DC System Power	DC Power Jack	24v System Power Inlet
AB DISPLAY CONTROL 1	3.5mm 4 pole jack	RS232 Display Control
AB DISPLAY CONTROL 2	3.5mm 4 pole jack	RS232 Display Control
CONTROL	D Sub 9 Pin Female	Control codecs with Serial Port
CODEC CONTROL	USB-B	Control codecs with USB-B Port



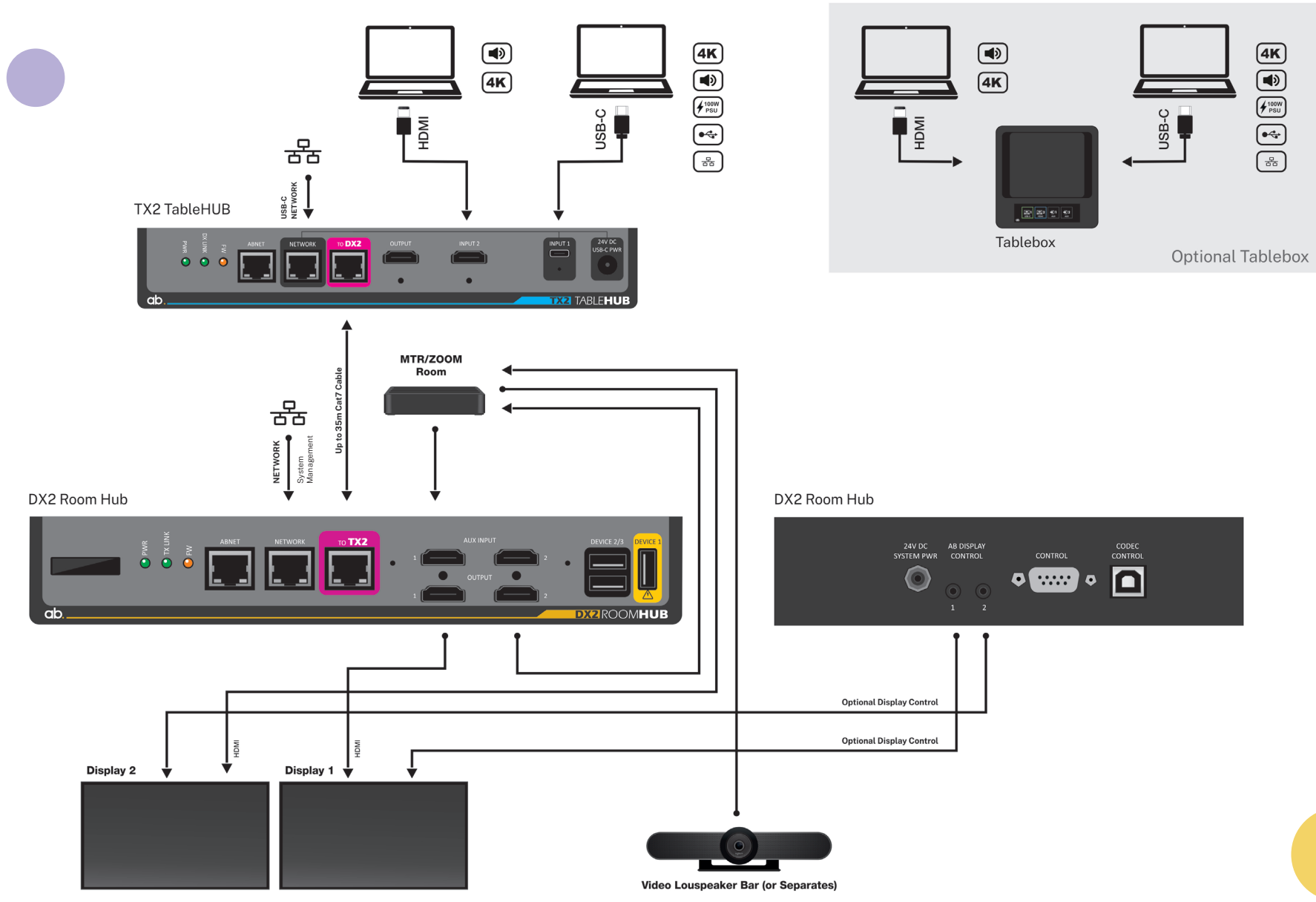
Application Example - Dual Display All-in-One Video Bar + BYOD.



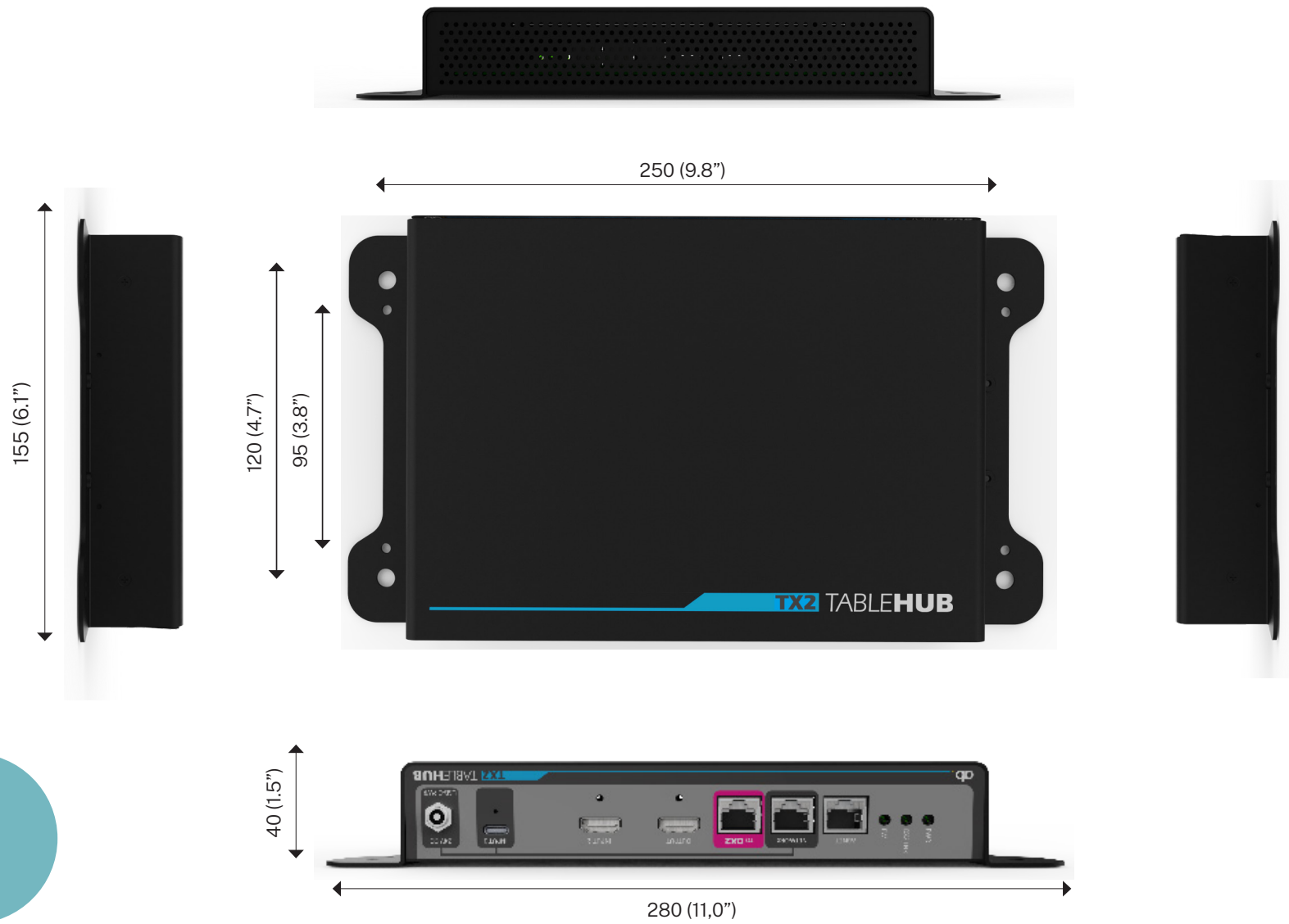
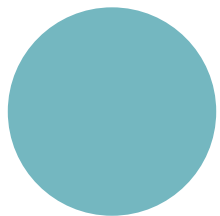
Application Example - Dual Display Room PC + BYOD.



Application Example - VC Dual Display System – MTR/Separates.



TX2 Table Hub Mechanical Dimensions.



TX2 Table Hub – Technical.

Video Matrix

- Maximum Pixel Clock Frequency Range: 600 MHz
- Video Resolution: up to 4K2K@60 4:4:4 8 bit
- Compliant to HDMI 1.4 and HDMI 2.0 specifications
- Supports HDCP 1.4/2.2 (can be disabled if needed)
- Output to DX2 via single Cat6a/Cat7 cable

Video Inputs

- 1 x HDMI
- 1 x USB-C
- Inputs have integrated equaliser for improved signal integrity
- Signal auto sensing on all inputs
- HDCP can be disabled, to remove HDCP issues with VC codecs
- EDID can be selected from presets or copied from connected display via the built-in System Configurator setting page.

Video Output

- 1 x HDMI
- Output routing is configurable in System Configurator to be either HDMI or USB-C video.
- Output switching can be automatic (on connecting a source) or manual via the Tablebox touch panel

HDMI:

- Up to 4K @ 60 Hz 4:4:4 8 bit uncompressed HDMI 2.0 video/audio
- Supports HDCP 2.2 (Can be disabled if needed)
- 16 Gb/s video data output to DX2

USB-C:

- Up to 4K @ 60 Hz 4:4:4 8 bit uncompressed HDMI 2.0 video/audio
- USB Power delivery 2.0 (Device charging up to 20v @5 A (100 W)) – Requires optional USB-C Charging Power Supply (Part No. 900-00585)
USB 2.0 with up to 350 Mbit/s data rate
- Integral USB-C to 10/100/1000BaseT Ethernet port

Audio

- HDMI embedded audio

Control

- ABNET™ expansion bus for Tablebox Touch Panel'

Power

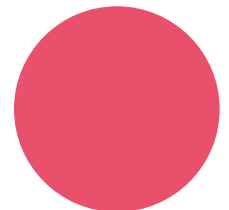
- Powered by POC from DX2 unit
- USB-C power provided by local 24v 5A PSU)
Requires optional USB-C Charging Power Supply (Part No. 900-00585)

Environmental

- Operating Temperature Range 0–45 degrees C
- Operating Humidity 10% to 90% non condensing

General

- Warranty 3 Year



DX2 Room Hub - Technical Overview.

Video Matrix

- Maximum Pixel Clock Frequency Range: 600 MHz
- Video Resolution: up to 4K2K@60 4:4:4 8 bit
- Compliant to HDMI 1.4 and HDMI 2.0 specifications
- Supports HDCP 1.4/2.2 (can be disabled if needed)
- Input from TX2 via single Cat6a/Cat7 cable

Video Inputs

- 2 x AUX HDMI
- Inputs have integrated equaliser for improved signal integrity
- Signal auto sensing on all inputs
- HDCP can be disabled, to remove HDCP issues with VC codecs
- EDID can be selected from presets or copied from connected display via the built-in System Configurator setting page.

Video Output

- 2 x HDMI
- Output routing is configurable in System Configurator to be either TX2 signals or local signals
- Output switching can be automatic (on connecting a source) or manual via the Tablebox touch panel

HDMI:

- Up to 4K @ 60 Hz 4:4:4 8 bit uncompressed HDMI 2.0 video/audio
- Supports HDCP 2.2 (Can be disabled if needed)
- 16 Gb/s video data input from TX2

USB:

- USB 2.0 passthrough from USB-C host on TX2™
- 2 USB device ports with power switching
- 1 USB device port without power switching

Ethernet

- Integral 100BaseT Ethernet switch with interfaces for:
 - System Configurator
 - Remote management
 - Telnet
 - Codec control

Audio

- HDMI embedded audio

Control

- ABNET port for AB peripherals'

Power

- Powered by an external locking 24v (64.8W) power supply (supplied)
- Supplies POC to power TX2 unit (An optional USB-C Charging Power Supply (Part No. 900-00585 is needed for USB power delivery on the TX2)

Environmental

- Operating Temperature Range 0–45 degrees C
- Operating Humidity 10% to 90% non condensing

General

- Warranty 3 Year

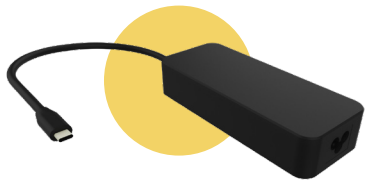
Optional Accessories.

TX2 USB-C Charging PSU (100W).



Connect the PSU to the TX2 and provide your connected USB-C device with charging power up to 100W.

Charging power will be supplied over a USB-C Cable or Retractor.



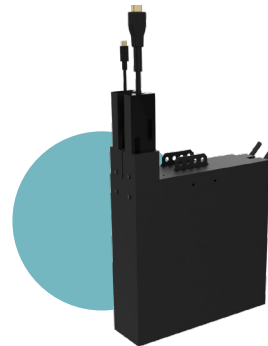
Tablebox & Retractors.



Ashton Bentley Tablebox that can be supplied with 2 Retractors (HDMI & USB-C) or just house input cables.

Manual input selection via optional integrated Touch Panel with colour changing buttons that provide status feedback.

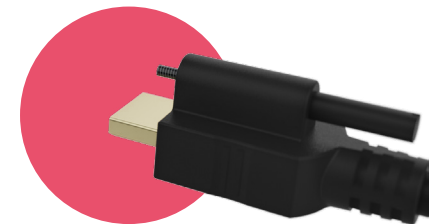
Simple to install and use. Conceals cables when not in use keeping table surface clear.



USB-C and HDMI Cables.



Locking HDMI and USB-C cables designed for the Professional Meeting Room environment. Prevent accidental disconnection from the TX2.



Want to know more?

Ashton Bentley Collaboration Spaces Ltd

www.ashtonbentley.com | spaces@ashtonbentley.com | +44 (0)207 100 1200

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