

TX2 Table Hub & DX2 Room Hub Meeting Room AV Kit



ab

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

Features in all products:



On-Product OLED Display (Shows IP Info)



Built-in Webserver GUI (Simple set-up & configuration)



4K 60 Hz video 4.4.4 uncompressed



Works with Mac or Windows (No Drivers)



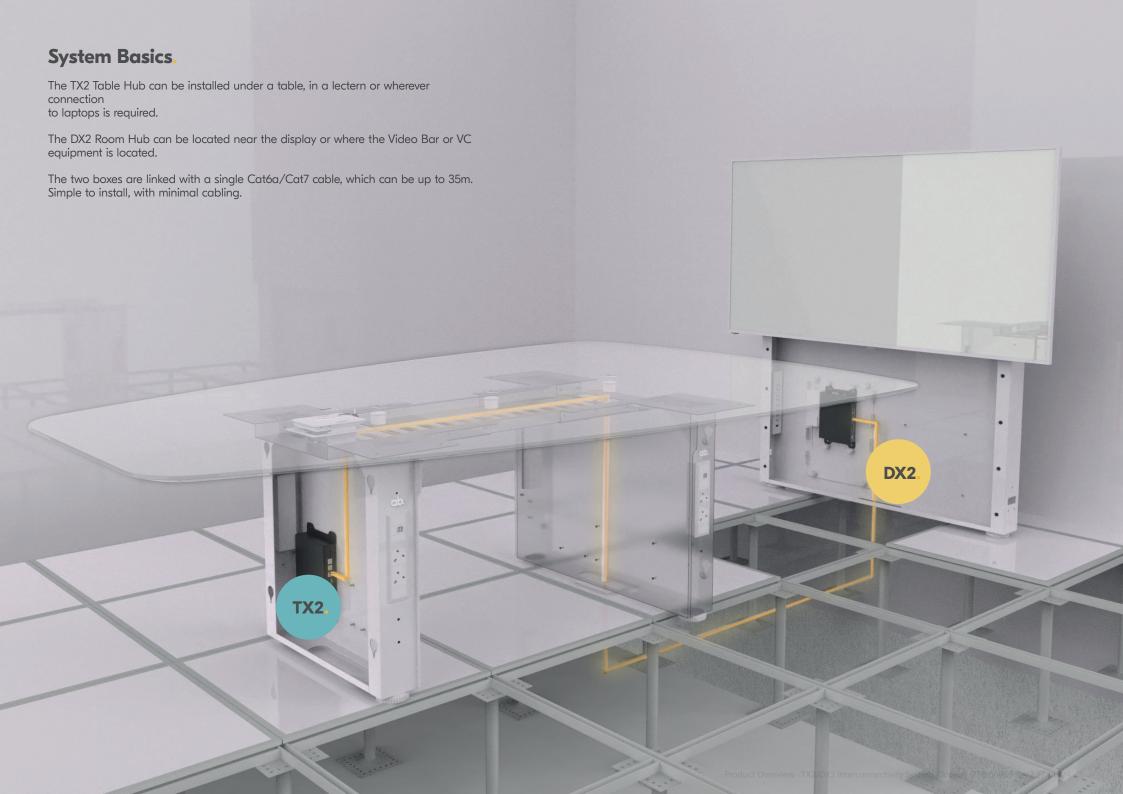
USB-C Fully Specified



USB-C 100W Charging



Locking USB-C & HDMI (Prevent disconnection)



Overview.



TX2 Table Hub.

USB-C & HDMI Laptop input connectivity at the table.

USB-C laptop 100W charging.

Extend inputs from table to display/VC

- · Fully featured USB-C and HDMI connectivity with input signal sensing
- 4K 60Hz 4:4:4 uncompressed 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 bus connection for AB Tablebox Touch Panel
- Powered from DX2 via Cat6A/Cat7 link cable
- Optional USB-C laptop charging (100W)



DX2 Room Hub.

Room AV system: signal routing & management, VC integration, display control and monitoring.

Supports either Bring Your Own Device (BYOD) mode, VC engine, or both.

On-board processor monitors all functionality and connectivity with data available for 3rd party

management platforms to simplify maintenance and support.

- 4K 60Hz 4:4:4 uncompressed video routing & transmission
- Cat6a/Cat7 link to TX2 (Video/Audio/USB/Control)
- Configuration/control via built-in Webserver GUI
- 2 Auxiliary HDMI Inputs with 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 & RS232 display control
- Programmable Cisco codec control port
- Programmable RS232 3rd party control system port
- OLED status display

TX2 Table Hub Connectivity.



Connection	Туре	Function
ABNET	RJ45	Serial / Power connection to AB Peripherals
NETWORK	RJ45	1 Gbps or 10/100/1000Mbp (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
INPUTI	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.

Connectivity Plate 1



Connection	Туре	Function
ABNET	RJ45	Serial / Power connection to AB Peripherals
NETWORK	RJ45	1 Gbps or 10/100/1000Mbp (For system management)
To TX2	RJ45	Cat6a/Cat7 Interconnection to TX2
OUTPUTI	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

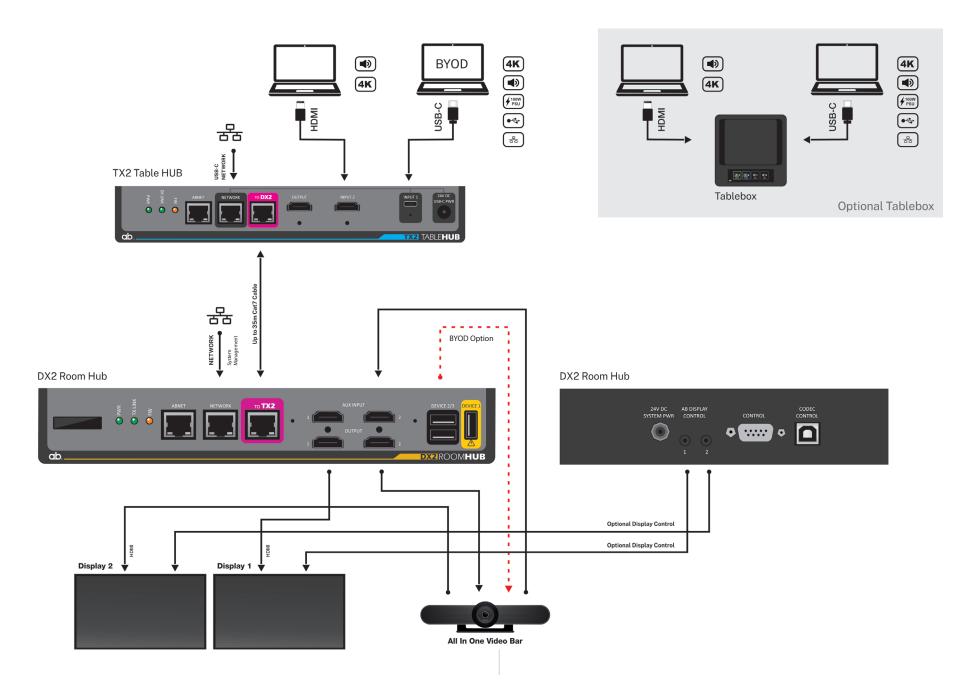
DX2 Room Hub Connectivity.

Connectivity Plate 2

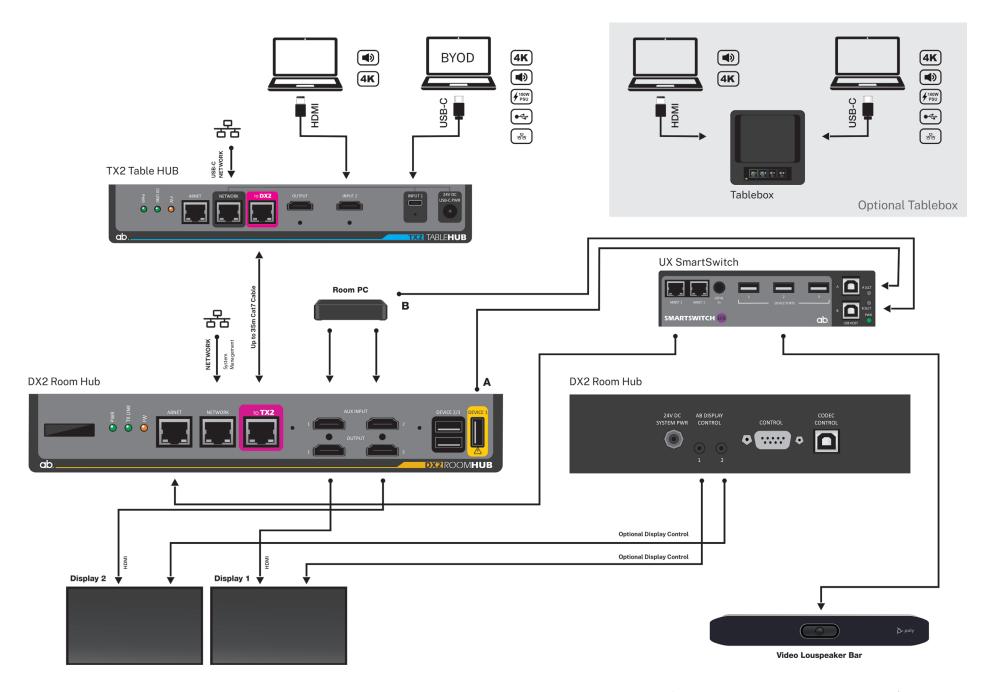


Connection	Туре	Function
24v DC System Power	DC Power Jack	24v System Power Inlet
AB DISPLAY CONTROL 1	3.5mm 4 pole jack	RS232 Display Control
AB DISPLAY CONTROL 2	3.5mm 4 pole jack	RS232 Display Control
CONTROL	D Sub 9 Pin Female	Control codecs with Serial Port
CODEC CONTROL	USB-B	Control codecs with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

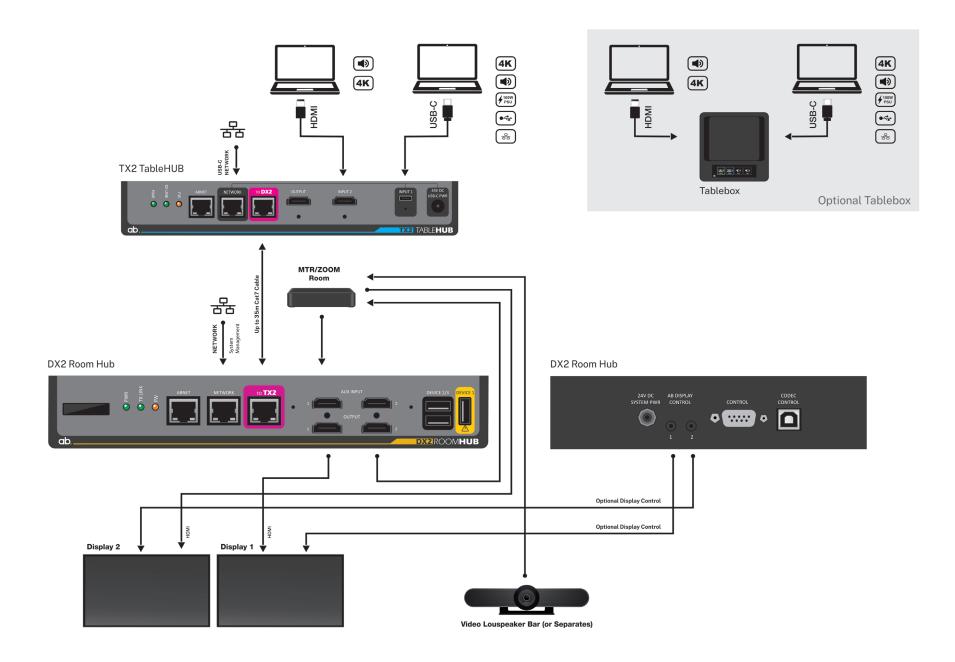




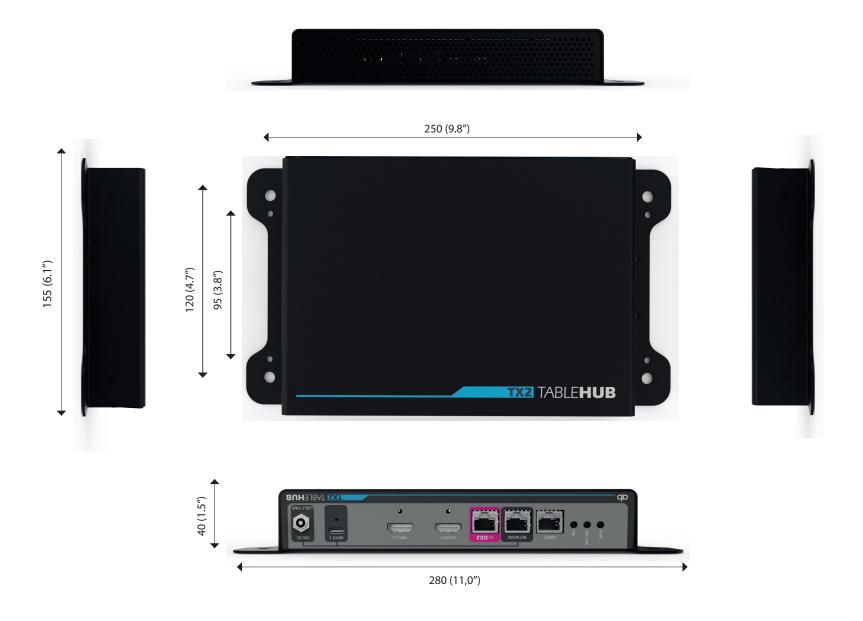
Application Example - Dual Display Room PC + BYOD.



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

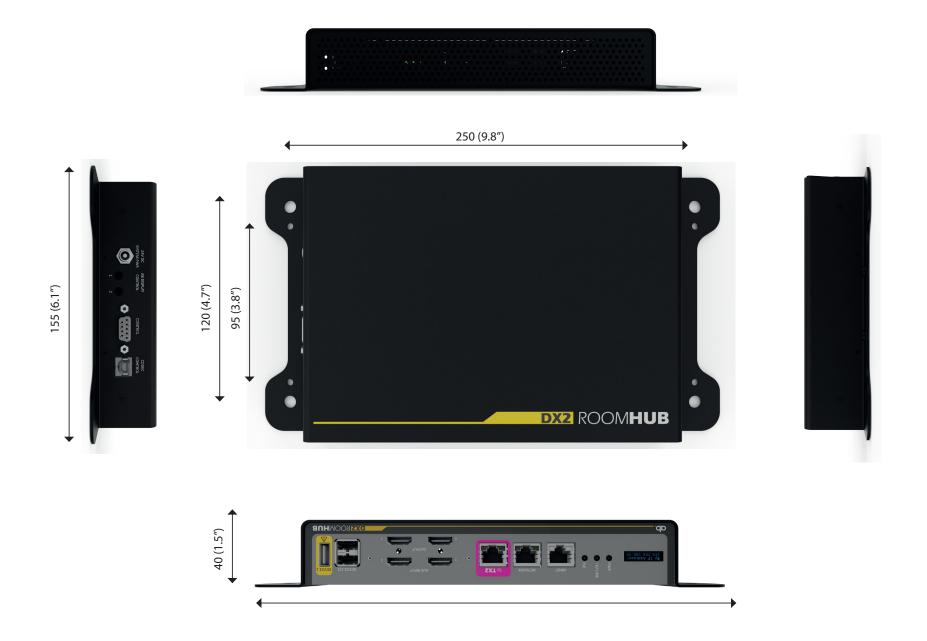
• Operating Temperature Range 0 – 45 degrees C

• Operating Humidity 10% to 90% non condensing

General

• Warranty 3 Year

DX2 Room Hub Mechanical Dimensions.



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.



TableboxPart No. 900-00491

The Tablebox can house 2 Cables or 2 Retractors: 1 x USB-C and 1 x HDMI.

When installed in an Ashton Bentley table all mechanics and cables are hidden in the table leg.



Tablebox Touch Panel

Part No. 900-00509

OLED capacitive Touch Panel that is simple to install. Provides manual selection of inputs at the table, AUX inputs at the VXR/DX2 and select BYOD in some systems.

Intuitive operation with colour coded buttons that give feedback to the user.

Programmed via the DX2 in-built web server GUI.



Under-table Enclosure

Part No. 900-00528

Used when installing the Tablebox in a 3rd party table. Hides all the mechanics, cables and TX2 if installed.



Retractors

USB-C Part No. 900-00490 HDMI Part No. 900-00489

All metal mechanism for reliability. Tested to over 5,000 pulls.

Fully specified USB-C passive cable simultaneously supporting: 4K60 4:4:4 video 100W charging power USB-2 & 3



Cables

USB-C Part No. 115-00065 HDMI Part No. 115-00066

With locking connector to prevent inadvertent disconnection from any AB device.

Fully specified 2.6m USB-C passive cable simultaneously supporting:
4K60 4:4:4 video
100W charging power
USB-2 & 3
Gigabit network

2.8m HDMI cable.



TX2 USB-C Charging PSU 100W

Part No. 900-00585-xx

When connected by cable or Retractor to the TX2, the USB-C connected device receives 100W charging power

Optional Accessories.

UX BYOD Smart Switch

Part No. 900-00450

Designed to partner the Ashton Bentley Interconnect DX2 Room Hub & TX2 Table Hub.

Intelligent USB switch/hub which allows the switching of USB peripherals between a room PC/NUC and a laptop.

- 2x host ports to connect to laptop/room PC
- 3x device ports for connecting speaker bars, cameras etc.



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