



Technical Overview

VX USB-C & HDMI Video Extender Kit

Introduction.

The Ashton Bentley VX USB-C & HDMI Video/Audio Extender Kit is a two-box system that extends USB-C or HDMI over a single Cat6a/Cat7 cable up to 35m (100ft).

Simplify connectivity between USB-C & HDMI sources and video bars, displays or other devices.

What is included in the kit:

- VXT –Video Transmitter
- VXR –Video Receiver
- System PSU
- 10m CAT6a/Cat7 cable

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)



System Basics.

The VXT Transmitter is installed under a table, in a lectern or wherever connection to laptops is required.

The VXR Receiver is placed near the Video Bar/VC equipment or display/projector.

The two boxes are linked with a single Cat6a/Cat7 cable, which can be up to 35m. A 10m interconnect cable is included as standard.

Simple to install, with minimal cabling.

VXT.



VXT Transmitter.

The main functionality of the VXT is a 2:1 switcher with HDMI and USB-C inputs.

Supports video resolution up to 4K2K@50/60Hz 4:4:4 and bi-directional RS232 pass-through, with the signals capable of being transmitted up to 35m (100ft).

The VXT is remotely powered from the VXR via the Cat6a/Cat7 interconnect.

An optional PSU can be connected to the VXT that provides charging power for laptops via the USB-C connection. Mounting position on the back plate for this USB-C charging PSU.

The ABNET port allows the connection of an optional Ashton Bentley Tablebox with Touch Panel to manually control the switching operation. The Tablebox has 1 x HDMI and 1 x USB-C Retractor that replace the standard input cables.



VXR Receiver.

The VXR Receiver provides a single HDMI output with embedded audio from either the USB-C or HDMI connections at the VXT.

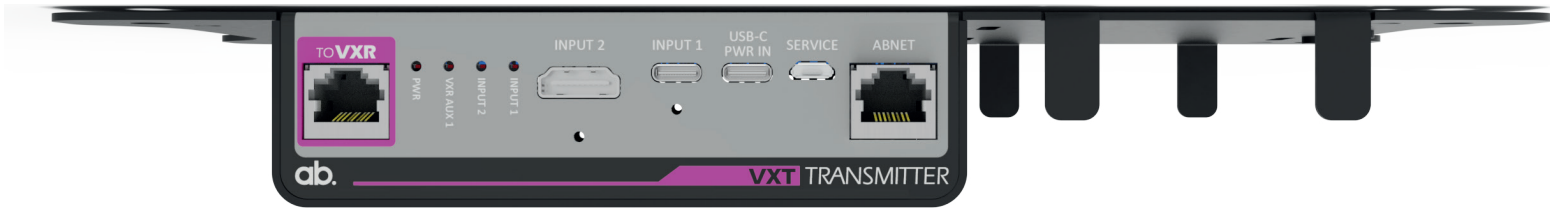
There is an additional AUX HDMI Input allowing the connection of a video conferencing system or a presentation device.

Note: this AUX Input cannot be selected if there is a source connected to the VXT. Removing all sources from the VXT will result in the VXR automatically switching to the AUX input.

The RS-232 port provides bi-directional pass-through connectivity to the VXT for any 3rd party devices.

The VXR has a separate stereo analogue audio output switched with the video signal to allow the connection of an amplifier and speakers.

VXT Transmitter Connectivity Overview.

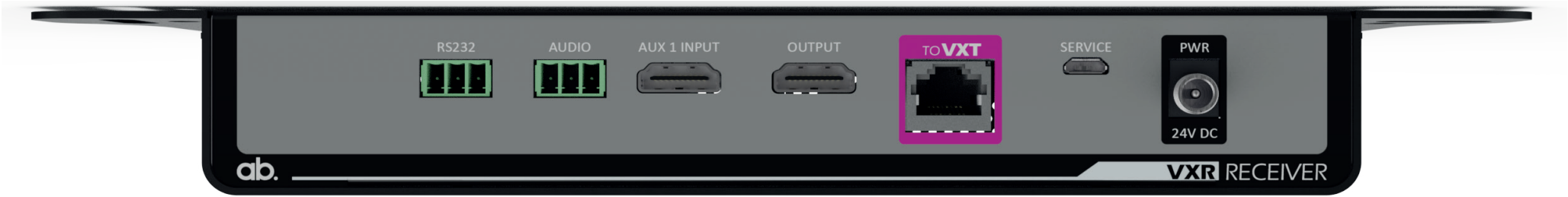


Connection	Type	Function
TO VXR	RJ45	Connection To VXR
ABNET	RJ45	AB peripherals like Tablebox Touch Panel
SERVICE	Micro USB	Engineering port
USB-C PWR IN	USB-C	Optional charging power for USB-C laptop
USB-C	USB-C Locking	USB-C Laptop Connection
RS232	3-Pin Phoenix	RS232 control signal pass-through to VXR
HDMI	HDMI Locking	HDMI Laptop Connection

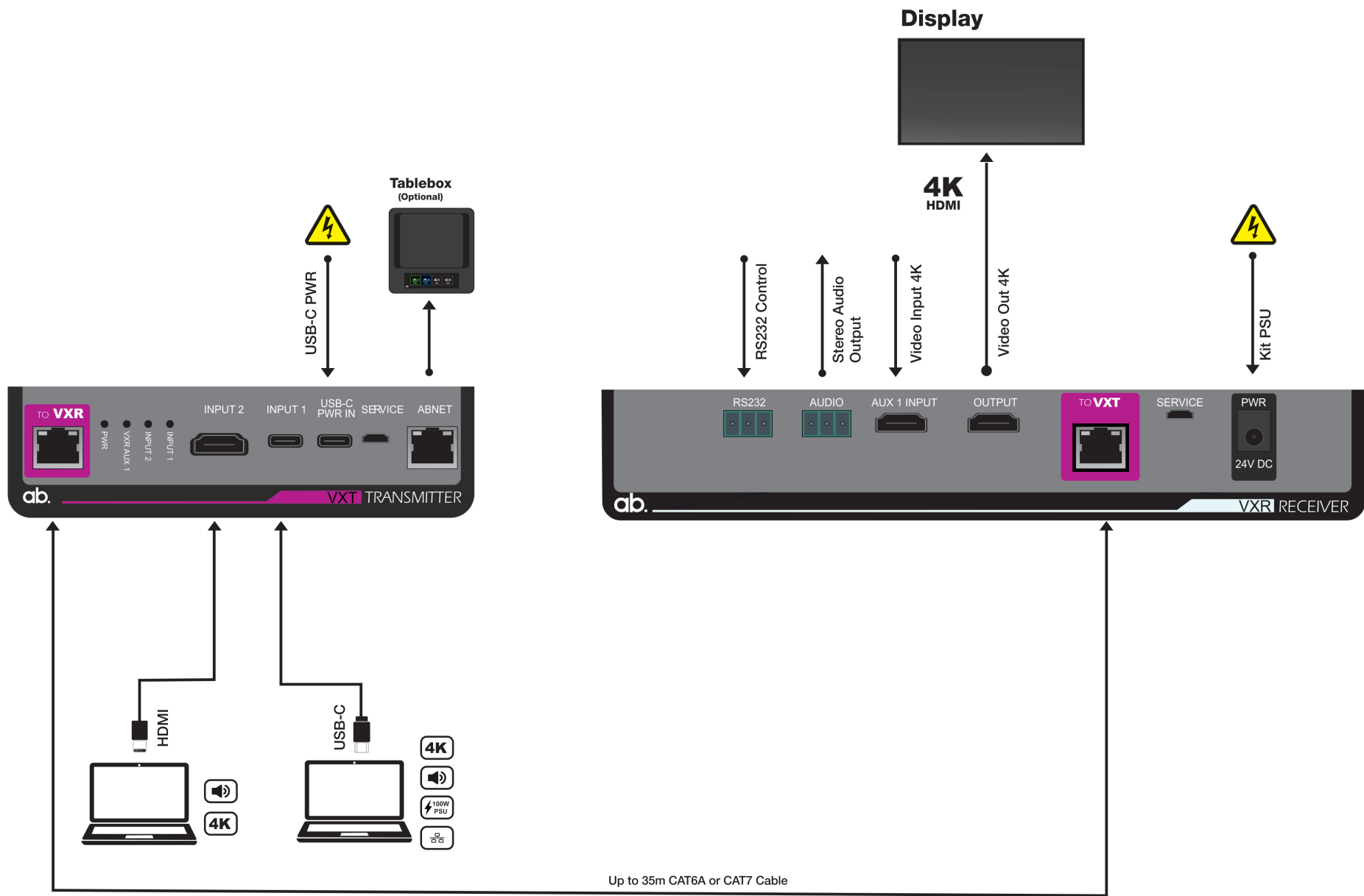
Status LED's

The VXT Transmitter includes status LED indicators to show active connections, and help diagnose potential problems:

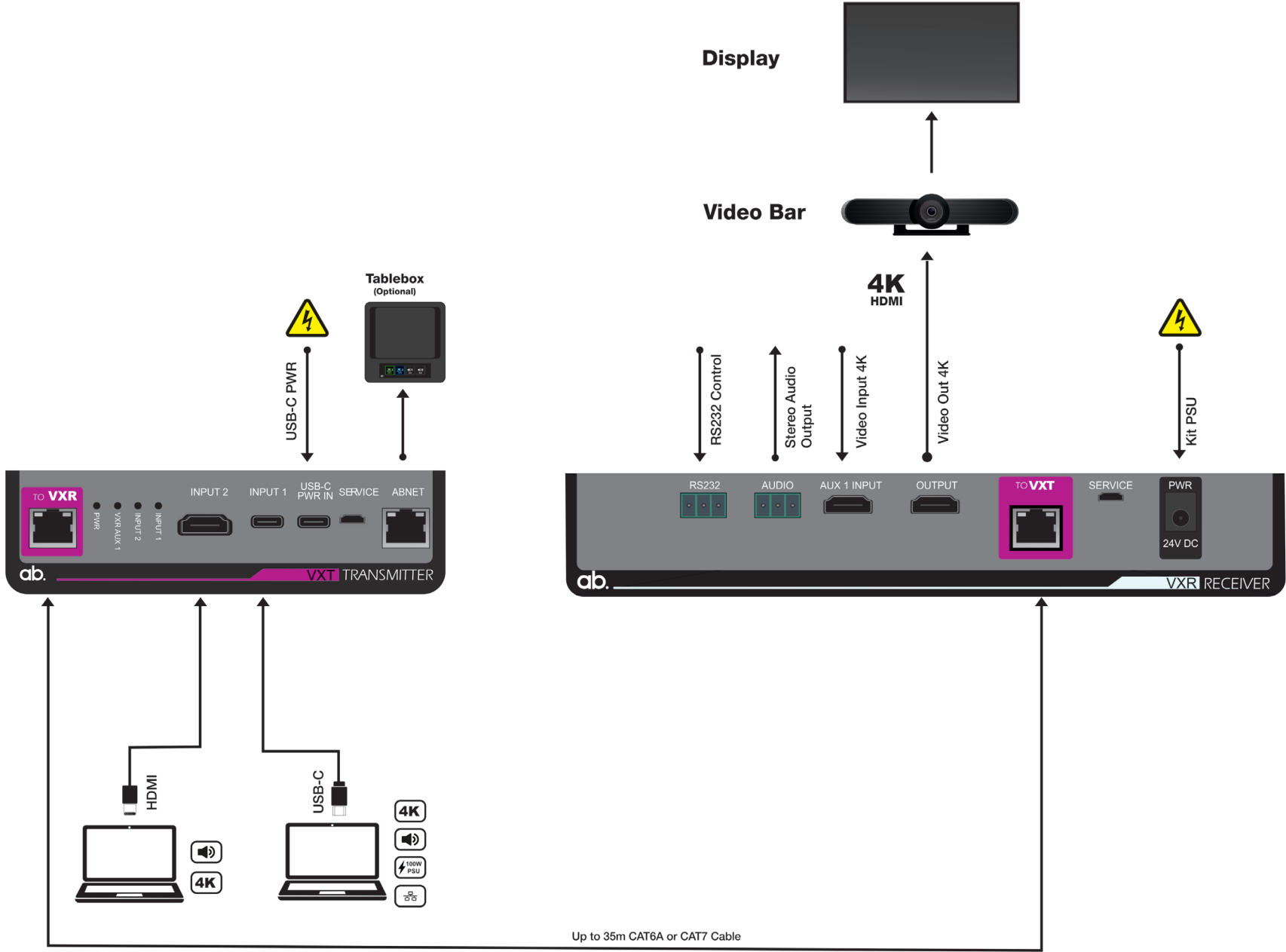
VXR Receiver Connectivity Overview.

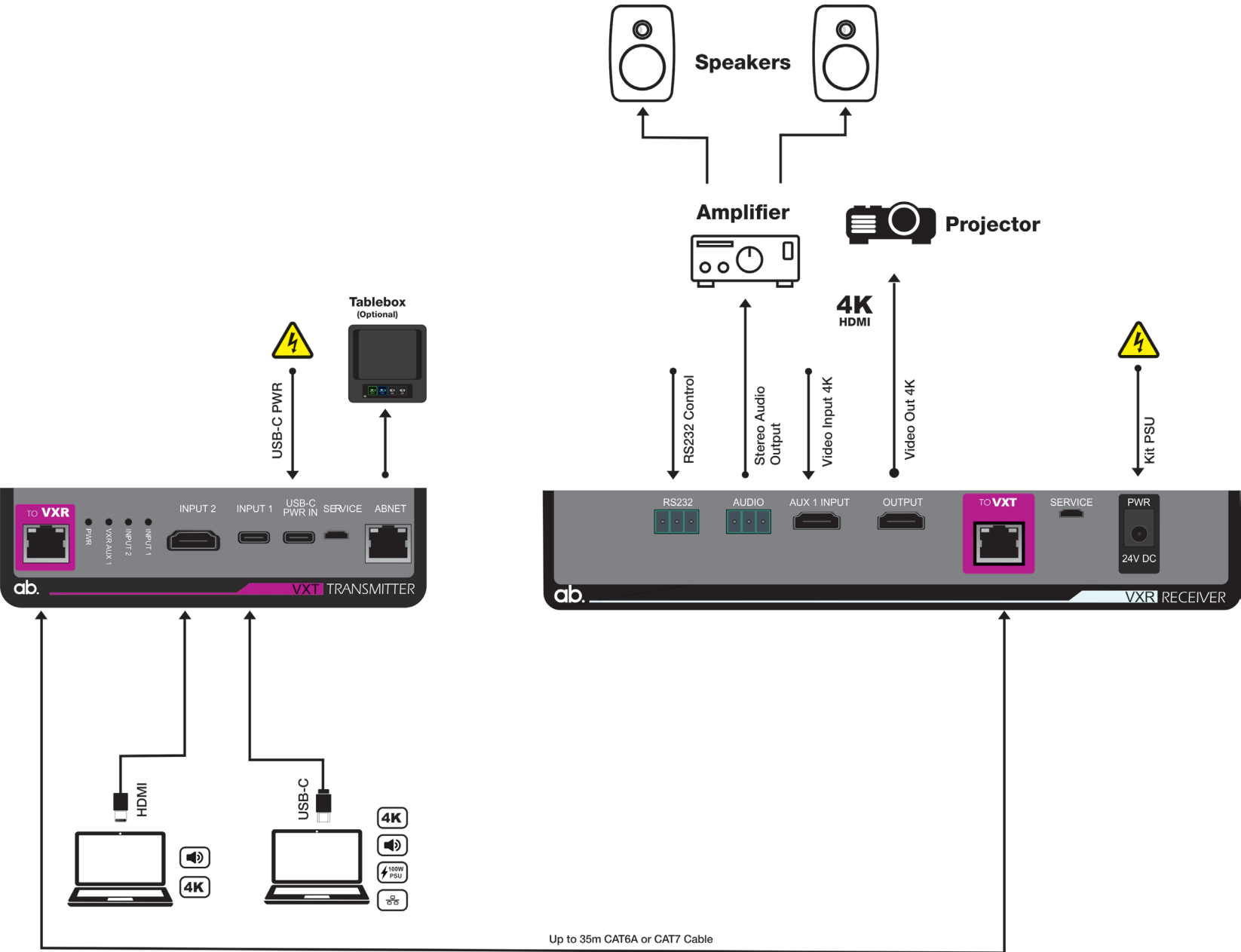


Connection	Type	Function
PWR	DC Jack	24V power for both VXR and VXT
SERVICE	Micro USB	Engineering port
TO VXT	RJ45	Connection to the VXT
VIDEO OUT	HDMI	Video out
VIDEO IN	HDMI	Aux HDMI Input
AUDIO	3-Pin Phoenix	Analogue stereo audio out
RS232	3-Pin Phoenix	RS232 control signal passthrough to VXT



Video Conferencing.





VXT Transmitter Mechanical Dimensions.



The VXT unit is on a standard Ashton Bentley back plate for simple mounting.

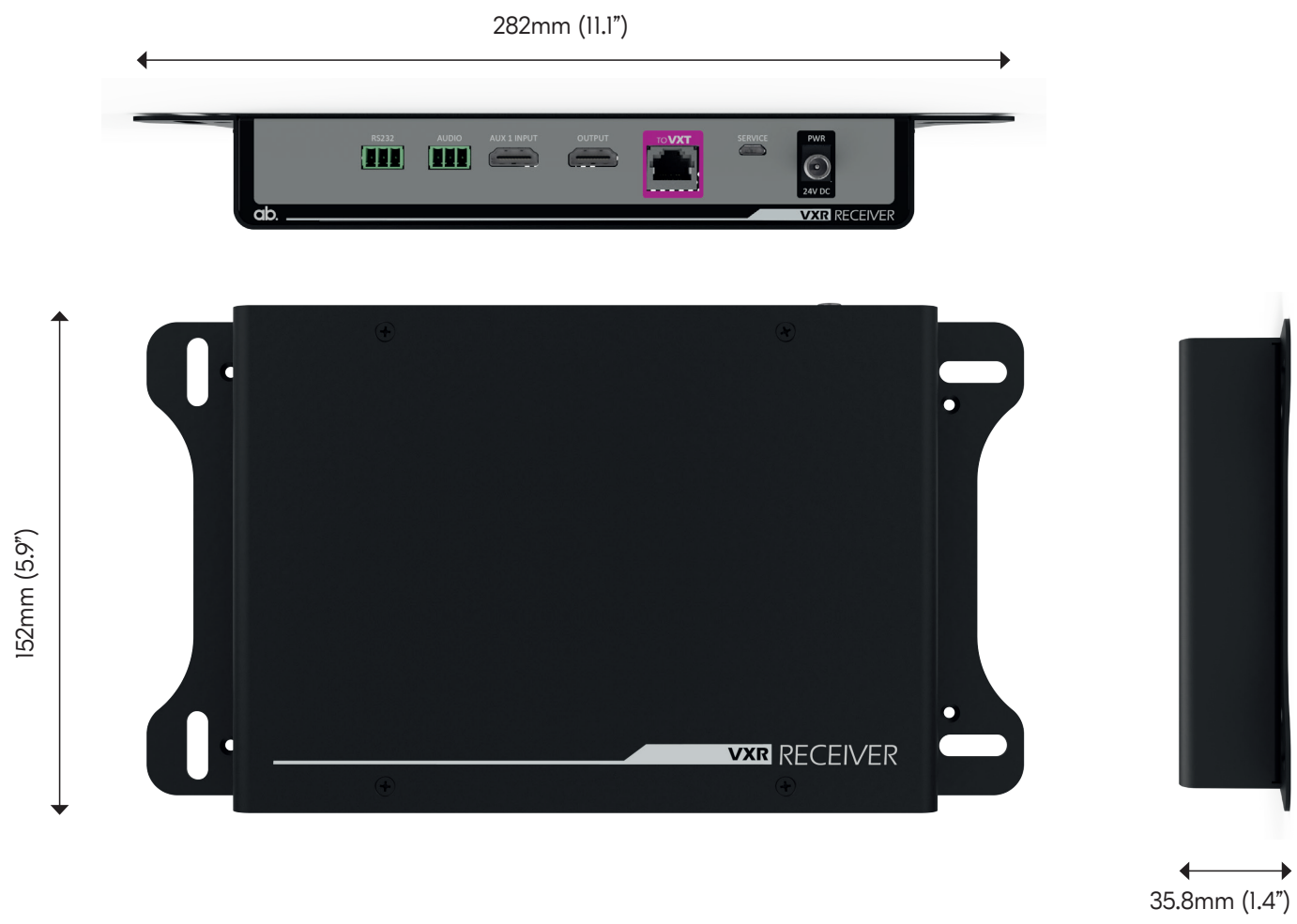
VXT Technical Overview.

- HDMI Compliance HDMI 2.0b
- HDCP Compliance HDCP 2.2
- DP Compliance Display Port 1.2a
- Video Bandwidth USB-C: 5.4 Gbps
HDMI: 18 Gbps
- Video Resolution 480i~1080p50/60Hz, 4Kx2K@24/30Hz, 4k2k@60Hz
- Colour Space RGB, YCbCr 4:4:4 / 4:2:2, YUV 4:2:0
- Colour Depth 8/10/12-bit (1080P@60Hz)
8-bit (4K@60Hz)
- HDR Support
- HDMI Audio Formats LPCM, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-H Master DSD
- Audio, Transmission Distance Max distance 1080P & 4K 35m (100ft)
- ESD Protection Max distance 1080P & 4K 35m (100ft)
Human body model — ±8kV (Air-gap discharge) & ±4kV (Contact discharge)

Mechanical Overview.

- Housing Metal Enclosure
- Color Black
- Weight 1.5Kg
- Dimensions See page 12
- Power Supply 24v power supply (supplied)
- Power Consumption 24W Maximum
- Operating Temperature 32 - 104°F / 0 - 40°C
- Storage Temperature -4 - 140°F / -20 - 60°C
- Relative Humidity 20 - 90% RH (no condensation)

VXR Receiver Mechanical Dimensions.



The VXR unit is housed on a standard Ashton Bentley back plate for simple mounting.

VXR Technical Overview.

- HDMI Compliance HDMI 2.0b
- HDCP Compliance HDCP 2.2
- DP Compliance Display Port 1.2a
- Video Bandwidth USB-C: 5.4 Gbps
HDMI: 18 Gbps
- Video Resolution 480i~1080p50/60Hz, 4Kx2K@24/30Hz, 4k2k@60Hz
- Colour Space RGB, YCbCr 4:4:4 / 4:2:2, YUV 4:2:0
- Colour Depth 8/10/12-bit (1080P@60Hz)
8-bit (4K@60Hz)
- HDR Support
- HDMI Audio Formats LPCM, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-H Master DSD
- Transmission Distance Audio, Max distance 1080P & 4K 35m (100ft)
- ESD Protection Human body model — ±8kV (Air-gap discharge) & ±4kV (Contact discharge)

Mechanical Overview.

- Housing Metal Enclosure
- Color Black
- Weight 1Kg
- Dimensions See page 14
- Power Supply Powered from VXR
- Operating Temperature 32 - 104°F / 0 - 40°C
- Storage Temperature -4 - 140°F / -20 - 60°C
- Relative Humidity 20 - 90% RH (no condensation)

Optional Accessories.



Tablebox

Part 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

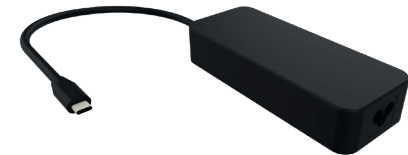
USB-C Part No. 115-00065

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.



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

Contact Us



Ashton Bentley
23 Schooner Court
Crossways Business Park
Dartford
DA2 6NW
United Kingdom

t: +44 (0)207 100 1200

e: spaces@ashtonbentley.com

w: www.ashtonbentley.com



USB-C Enabled AV Connectivity Solutions

Want to know more?

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

© 2011-2025 Ashton Bentley Trading Limited. All rights reserved. Ashton Bentley®, the Ashton Bentley logo and the names and marks associated with Ashton Bentley's products are trademarks and/or service marks of Ashton Bentley Trading Limited, and are registered and/or common law marks in the United Kingdom, United States and various other countries. All other trademarks are property of their respective owners. No portion here of may be reproduced or transmitted in any form or by any means, for any purpose other than the recipient's personal use, without the express written permission of Ashton Bentley.

Illustrations in this document might look different from your product. Content is subject to change without notice.

3rd party manufacturers may make periodic changes to the operational behaviour and features of their product(s). Please refer to their resources for the latest information.