

OMNI-VD-630-WP

4K60 MWC/Dante AV-A Decoder Wallplate
(US/UK/EU)



The BSS OMNI-VD-630-WP is an AV-over-IP decoder wallplate for distributing 4K60 4:4:4 video, audio, control, and USB 2.0 signals over Gigabit Ethernet, in environments ranging from classrooms and meeting rooms to courtrooms, hospitality venues, and large enterprise or government facilities.

At the core of the OMNI-VD-630-WP is the Motion Wavelet Compression (MWC) codec, engineered for pristine visual quality and ultra-low encode to decode latency with fast-motion video, high-detail graphics, and dynamic visual content.

The OMNI-VD-630-WP features USB 2.0 routing and extension through Virtual Network USB 2.0 Hub technology. A host PC, connected to an OMNI 600 encoder, can communicate with USB devices located at up to four OMNI-VD-630-WP decoders, supporting USB 2.0 data rates up to 480 Mbps. This capability allows host PCs to interface with cameras, conferencing bars, touch displays, HID peripherals, and other devices at remote locations across the network.

Along with high-performance networked AV distribution, the OMNI-VD-630-WP is Dante AV-A enabled for interoperability with third-party Dante AV-A encoders. Integrators can configure and manage OMNI 600 systems using Dante Controller, Dante Domain Manager, and Dante Director. In addition, this decoder supports two-channel Dante audio input and output.

The OMNI-VD-630-WP is designed for modern professional AV installations, with essential integration features including PoE+ remote powering, a low-power standby mode, video stream preview, custom image and slideshow presentations, open APIs for third-party control, 4K video scaling, and video wall processing. It is available in two models: OMNI-VD-630-WP (US Version) and OMNI-VD-630-WP-EK (EU/UK Version). Each model includes black and white faceplate inserts and wallplate covers.

| FEATURE HIGHLIGHTS

- AV-over-IP decoder for 4K60 4:4:4 video, audio, control, and USB 2.0 over Gigabit Ethernet
- Available in US and EU/UK wallplate versions, each with interchangeable black and white faceplate inserts and wallplate covers
- High-performance MWC codec delivers pristine-quality video with ultra-low latency
- Virtual Network USB 2.0 Hub for routing between a USB host and devices at up to four remote locations
- Dante AV-A enables interoperability with third-party networked AV decoders, plus system management from Dante Controller, Dante Domain Manager, and Dante Director
- Two-channel Dante audio input and output (2x2)
- Video preview from the built-in web interface or a touch panel
- Supports custom image and slideshow presentations
- Enhance video presentations with 4K video scaling, seamless switching, and video wall processing
- PoE+ powered with low-power (standby) mode to conserve energy
- Enterprise-grade network security and standards including IEEE 802.1x, HTTPS, TLS, AES-256 encryption, LDAP, VLAN tagging, and QoS
- AVX Suite for OMNI 600 system configuration and management
- HARMAN HControl and BSS Direct Control provide open APIs for third-party integration

| GENERAL SPECIFICATIONS

VIDEO	
Digital Video Output	HDMI 2.0
Formats	Dante AV-A, HDMI 2.0, HDCP 2.3
HDR	HDR, HDR10, HDR10+
Output Resolutions Supported	480p, 720p, 1080p, 1200p, 1440p, and 4K *See Appendix in manual
Output Refresh Rates Supported	30, 50, and 60
Color Space	4:4:4, 4:2:2, RGB
LocalPlay	8 playlists
Video Wall Construction	Supported up to 16x16
AUDIO	
Input Signal Types	PCM or Dante
Output Signal Types	Embedded audio on HDMI, Analog or Dante
HDMI Audio Channels	8ch
Analog Audio Channels	2ch
Dante Audio Channels	2ch
Dante Audio Sample Rate	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz
Audio Breakaway	Supported

| GENERAL SPECIFICATIONS

KEYBOARD AND MOUSE	
Keyboard & Mouse	Connect the decoder to the keyboard and mouse and an OMNI 600 Series, OMNI 200 Series, or AMX N2600 Series Encoder.
USB 2.0	
USB Data	Connect a USB 2.0 device such as a web camera, audio device, or any USB 2.0 device to the OMNI-VD-630-WP. Route the OMNI-VD-630-WP to an OMNI-UE-210, OMNI-VE-630-WP, OMNI-VE-660, or AMX SVSI N2600 encoder.
LATENCY	
Latency	<2 ms Scaling adds one frame of latency
Video/Audio Switching Stream-to-Stream	Near Seamless with recommended settings
USB Switching Stream-to-Stream	Dependent upon the Host Computer and Device *Can take several seconds to negotiate
COMMUNICATIONS	
Ethernet	10/100/1000 Mbps, auto-negotiating, auto-sensing, full/half duplex, DHCP and Static IP
*Note	Jumbo Frames Required
HDMI	HDCP, EDID management
PORTS	
P0 PoE+	10/100/1000Base-T Ethernet Port Provides network connection, network audio/video/USB, and power
IR OUT	3.5 mm connector Infrared (IR) output only *IR Emitter (Not Included) *See Manual for Pin-Out Detail
RS232	3.5 mm connector *See Manual for Pin-Out Detail
AUDIO OUT	3.5 mm connector, unbalanced output *See Manual
HDMI OUT	Video output
USB-A x2	Top connector: USB 2.0 or KVM Bottom connector: KVM only

GENERAL SPECIFICATIONS

CONTROLS AND INDICATORS - FRONT	
RESET Button	Recessed pushbutton Press to initiate a 'warm restart' causing the processor to restart. A reset does NOT affect the current settings.
ID Button	Recessed pushbutton Press less than 4 seconds to send a network notification to identify the unit (the notification causes a pop-up dialog in AVX NAV Router to appear). Holding the button between 7 and 20 seconds and releasing will cause the device to enable the On-Screen Display (OSD). Holding the button for 30 seconds and releasing will cause the device to return to factory configuration.
POWER LED	On (green) when operating power is supplied
STATUS LED	On (green) when there is software activity
STREAM LED	On (green) when the unit is receiving streaming video
HDCP LED	On (amber) when HDCP is detected
LINK/ACT	Ethernet activity and status LED
HDMI VIDEO LED	On (green) when the unit is communicating with a display
AUDIO LED	On (green) when the analog audio setting is enabled
POWER SUPPLY	
Power over Ethernet (PoE+)	Can be powered via a PoE+ switch or other equipment with a PoE+ source. Conforms to IEEE 802.3at Class 4 (802.3at Type 2) NOTE: For the unit to receive Power over Ethernet (PoE+), it must be connected to a switch or other equipment that has a PoE+ PSE (Power Sourcing Equipment) port Currently the device relies on a 1-event, Type 2, OSI Layer-1 negotiation for power. WARNING: Do not run wiring connected to a PoE+ PSE port outside of the building where the PSE resides. It is for intra-building use only.
INCLUDED ACCESSORIES	
Qty.	Description
1	Face Insert alignment tool
1	Low-voltage trim ring back box (US Model Only)
1	White Three-Gang cover plate
1	Black Three-Gang cover plate
1 Set (3 Pieces)	White (PMMA) Face Insert with adhesive backing
1 Set (3 Pieces)	Black (PMMA) Face Insert with adhesive backing
6 (6-32 x 1½")	Silver screws, for mounting the OMNI-VD-630-WP to low-voltage ring (US Model Only)
6 (6-32 x ½")	White screws, for mounting the White cover plate to OMNI-VD-630-WP
6 (6-32 x ½")	Black screws, for mounting the Black cover plate to OMNI-VD-630-WP
*Note	See Manual for Assembly Instructions

| **GENERAL SPECIFICATIONS**

ENVIRONMENTAL	
Temperature	32° to 104°F (0° to 40°C)
Humidity	10% to 90% RH (non-condensing)
Heat Dissipation	85 BTU/hr
GENERAL	
Product Dimensions (LWH)	OMNI-VD-630-WP: 5.2" x 2.3" x 4.2" (132.08 mm x 58.42 mm x 106.68 mm)
	OMNI-VD-630-WP-EK: 8.3" x 2" x 2.8" (210.82 mm x 50.8 mm x 71.12 mm)
Weight	OMNI-VD-630-WP: 0.92 lbs (0.42 kg)
	OMNI-VD-630-WP-EK: 0.77 lbs (0.35 kg)
Shipping Weight	OMNI-VD-630-WP: 1.58 lbs (0.72 kg)
	OMNI-VD-630-WP-EK: 1.32 lbs (0.60 kg)
Regulatory Compliance	FCC, CE, KCC, UKCA, and UL
SKU (US)	BSS-VD630WP
SKU (UK/EU)	BSS-VD630WP-EK

