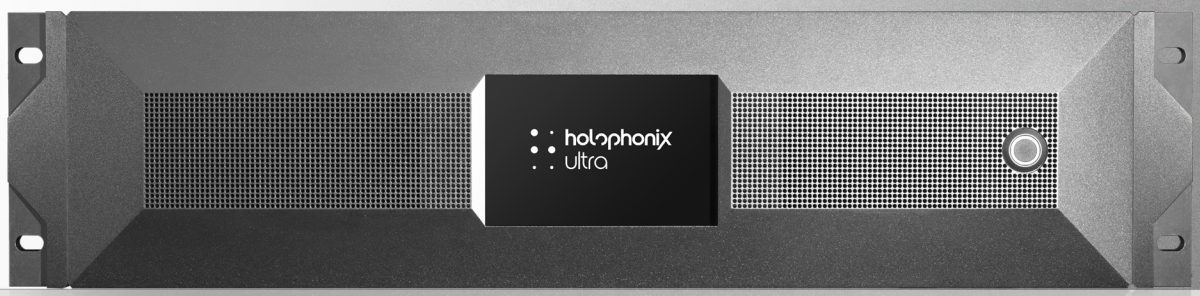
holophonix ultra

TECHNICAL SPECIFICATIONS



REV1.4/04.2026
HOLOPHONIX 2.4.0

PHYSICAL SPECIFICATIONS

Height	111 mm (2.5U)
Depth	433 mm
Width	430 mm
Front width with mounting brackets	482 mm
Rear width with mounting brackets	438 mm
Weight (net)	17 kg (37.5 lb)
Packed weight	19.7 kg (43.4 lb)

POWER & THERMAL SPECIFICATIONS

Mains connector	2 x powerCON
Power supply	Dual redundant PSUs with automatic failover
Operating temperature	5 °C to 32 °C
Operating voltage	100-240V AC, 50/60 Hz
Total power	54 W (nominal) - 83 W (high load)
BTU / Heat load	184 BTU/h (nominal) - 283 BTU/h (high load)
Fan noise at high load (@1 m)	27 dBA (front) - 33 dBA (rear)

AUDIO SPECIFICATIONS

Format	Dante® AoIP Network
Connections	2 × etherCON (2.5 Gbps) Ethernet Ports (Primary and Secondary)
Redundancy	Glitch-free audio redundancy with Primary and Secondary Ethernet ports
Audio channels	Up to 128 redundant Dante inputs and 128 redundant Dante outputs, depending on the installed license
Scalability	Expandable up to 512 I/O with optional DSP expansion card
Supported sample rates	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz
Sample bit-depth	24 bits PCM
Network latency	< 2 ms
Internal processing buffer sizes	32, 64, 128, 256, 512, 1024, 2048 samples

CONNECTIONS

Network	1 × etherCON Remote Port (1 Gbps) 2 × etherCON Dante Ports (2.5 Gbps)
USB	1 × USB 3.0 (Type A)
Service Port	1 × DisplayPort 1.4a

CONTROL

Control and remote	Local control (with a computer screen, keyboard and mouse, not provided) Remote control with the web remote interface, accessible from any computer on the same network, with Google Chrome™ or Chromium™-based web browsers Embedded tech support tools for remote troubleshooting
External control protocol	'HOLOSCORE' plug-in for any major DAW for real-time automation capabilities Open Sound Control (OSC): send and receive control messages for all parameters ADM-OSC: send and receive unified control messages for selected parameters Yamaha external-link (CL, QL and DM series) Support for head tracking accessories
Automatic start	Fully automated booting procedure, with a user-definable preset automatically loaded at startup, for easy operation on basic setups
Automatic reboot	Fully automated reboot after power outage

PROCESSING FEATURES(*)

Quantity of virtual sources	Unlimited[1] (user-defined)
Quantity of spatialization algorithm buses	Unlimited[1] (user-defined)
Sound objects formats (virtual sources)	Mono, Stereo, Multichannel (from an exhaustive list)
Ambisonics stream input formats	A-Format[2], B-Format[3], HOA Stream[3], Zylia[4], Eigenmike[4]
Direct to Master	Direct routing to output (spatial algorithm processing bypass)
Integrated algorithms	WFS (Wave Field Synthesis) 2D, and 3D HOA (Higher-Order Ambisonics) 2D, and 3D, up to 7th order Ambisonics VBAP (Vector-Base Amplitude Panning) 2D, and 3D VBIP (Vector-Base Intensity Panning) 2D, and 3D LBAP (Layer-Based Amplitude Panning) 3D KNN (K-Nearest Neighbors) 2D, and 3D Angular 2D Stereo Panning, Stereo AB, Stereo XY Binaural (for headphones) with support of SOFA HRTF files Transaural (for stereophonic system)
Output standards / loudspeaker positioning	Free loudspeaker positioning to fit any custom loudspeaker layout; Outputs can also be configured to standard output formats (for example to record an automatic downmix of the performance): • Channel-based setup: • any ITU standard (e.g. 5.1, 7.1, 22.2, etc.), • Stereo panning, • AB/XY microphone simulation for more realistic results, • Binaural
Reverberation	3D-immersive algorithmic reverberation Object-based simulation and independent control of direct sound, early reflections and late reverberation parameters Automatic level option based on source positioning and distance Model based on perceptual studies of distance
Processing options	Trim (-80, +30dB) and Gain (-60, +12dB) adjustments for sources, buses and master Adjustable delay (from 0 to 5000 ms) on sources, buses and outputs Equalizer and dynamic processing options on each source, bus, with fully adjustable bands and shelves available Equalizer for each reverberation stage Equalizer available on each audio output (loudspeaker) Loudspeaker gain and delay adjustment on each spatialization bus, individually (with automatic computation mode based on loudspeaker positioning)
Monitoring	Integrated binaural monitoring of sources and the loudspeaker setup
Subwoofer management	LFE channel with adjustable HPF filter (2nd order IIR filter, 12 dB/oct) and equalizer and dynamics processing. User-defined subwoofer buses, using any available algorithm

1 limitations apply depending on DSP usage.

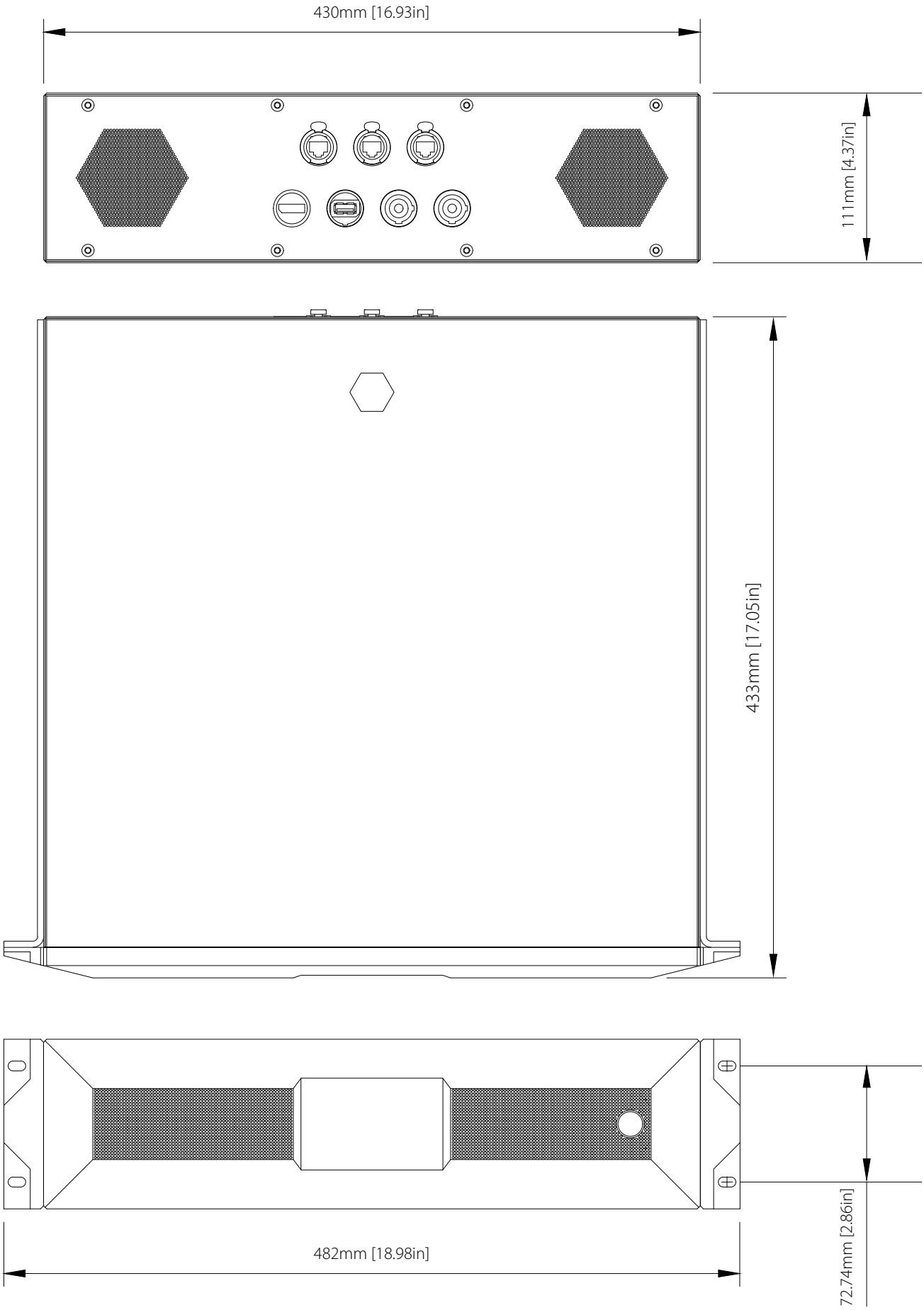
2 native decoding of industry standard microphones: Sennheiser Ambeo, SoundField ST250, ST450 and SPS200, RØDE NT-SF1, DPA-4 and Oktava MK-4012.

3 native decoding of up to 7th order streams, with support of ACN, SID and FMH sorting; FuMa, MaxN, N3D and SN3D normalization standards (AmbiX compatible).

4 native decoding of Zylia® ZM1 and Eigenmike® EM-32/EM-64 HOA microphones.

(*) Features may change with future updates without prior notice.

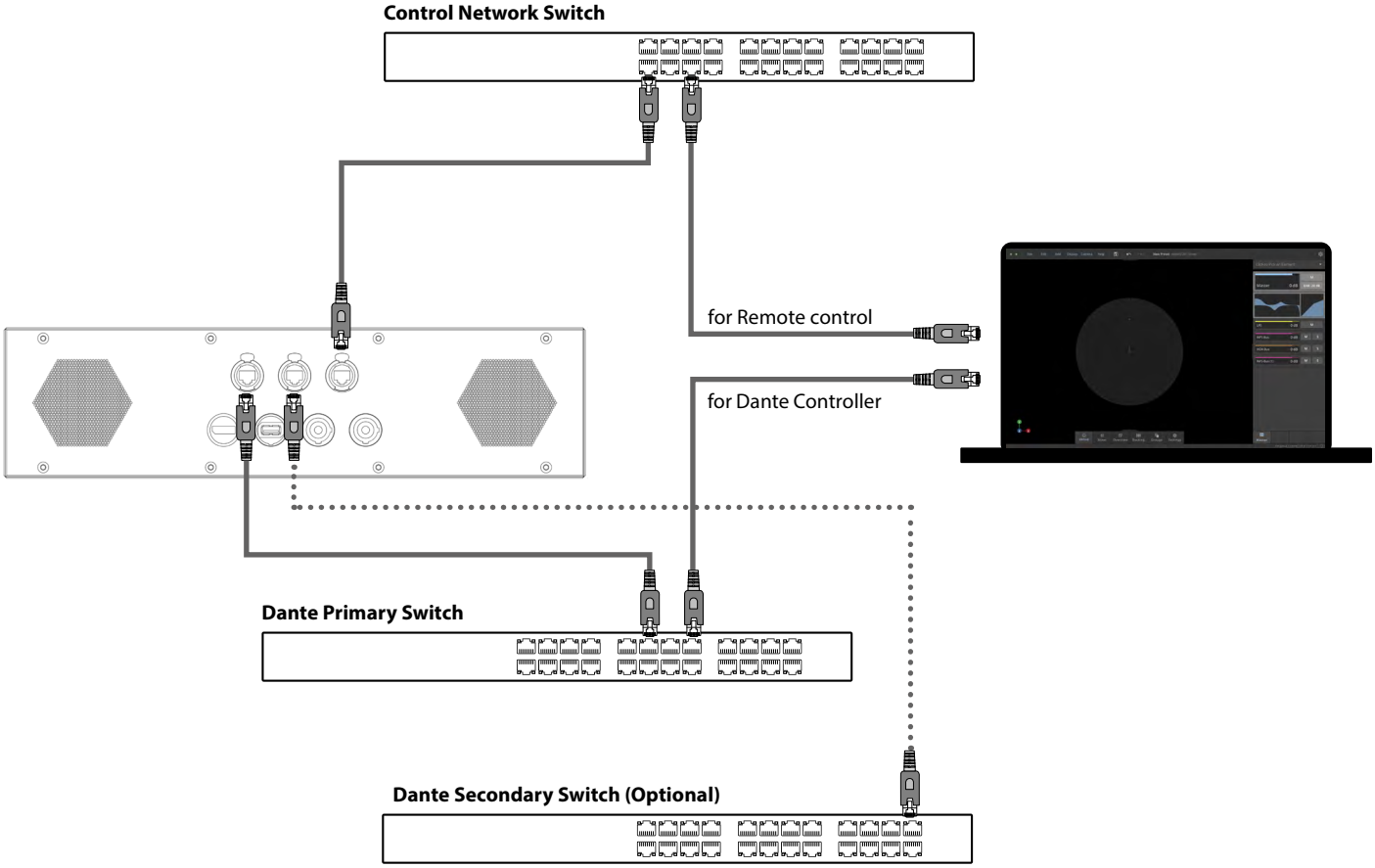
CAD DRAWINGS



SETUP EXAMPLE

Connect your HOLOPHONIX processor to your Dante Primary, Dante Secondary, and Remote control networks.

You can use a different computer for Remote Control of HOLOPHONIX and Dante Controller, or, you can use multiple network adapters on the same computer.



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