ClearOne ®

CONVERGE® Pro 2 48VTD

An advanced multi-channel microphone automixer with built-in support for Dante audio networking, VoIP conferencing, a Telco interface, and the latest audio DSP algorithms.
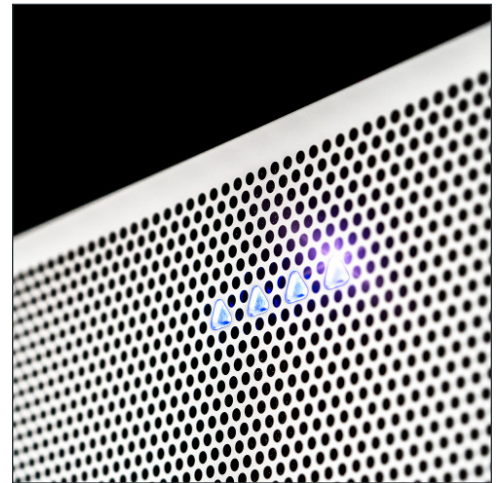
Everything you need:
Supports SIP, Dante®, 4 configurable mic/ line audio inputs, 8 configurable mic/line audio outputs, built-in USB audio, and a Telco interface.

> Built-in Native Camera Tracking for ClearOne Unite cameras and many 3rd party cameras using RS-232 and Ethernet VISCA over IP.

> 4 mic/line inputs and 8 mic/line outputs.

> Support for SIP-based conferencing up to 5 lines and 5 calls based on line configuration.

> 16 Dante inputs and 16 Dante outputs for audio networking.

> Analog Telco interface.

> Native Audio based VISCA camera control

> Built-in USB audio.

> Reduced foot-print and power consumption.

> Built-in DARE™ algorithm for dynamic feedback elimination.

> C-Link and P-Link enable easy addition of DSPs and peripherals.

> Configure an entire system of C-linked DSPs with CONVERGE CONSOLE® AI software.

> Flexible control options include Touch-Panel Controller, BYOD dialer apps or 3rd party control modules.

Easy Integration
Daisy-chain the CONVERGE Pro 2 with the BMA 360, DIALOG® 20 2-Channel Wireless Microphone System, and other peripheral devices through P-Link.

APPLICATIONS

• VoIP Conferencing
• POTS conferencing
• Audio recording
• Pre-recorded digital audio
• Audio networking over a LAN
• Web conferencing
• UC audio conferencing
• Sound reinforcement
• Bridge web conferences

WORKSPACES

• Conference rooms
• Training rooms
• Lecture halls
• Courtrooms
• Telemedicine theaters
• Houses of Worship

It's All About the Architecture! ®

CONVERGE® Pro 2 48VTD

PART NUMBER ....
- 910-3200-008-D

CAMERA TRACKING ....
- Supported Cameras: Unite 150, Unite 200, Unite 160, Unite 260 (One Camera per DSP)
- Communication Protocol: VISCA
- Communication options: Serial (RS-232) or Ethernet (VISCA over IP)

MIC/LINE INPUTS & OUTPUTS ....
- Inputs: Balanced audio inputs, 3.81 mm Orange color Phoenix/Euroblock type male header, Push-on miniterminal block
- Outputs: Balanced audio outputs, 3.81 mm Black color Phoenix/Euroblock type male header, Push-on miniterminal block
- Frequency Response: 20 Hz – 22 kHz @ +4 dBu, +/- 0.5 dBu
- EIN (Equivalent Input Noise): 20 kHz BW, max gain, Rs = 150 Ω, -126 dBu
- THD + N (Total Harmonic Distortion + Noise):
  - 20 Hz – 22 kHz @ +4 dBu, line level, 0.006%
  - 20 Hz – 22 kHz @ -56 dBu, mic level, < 0.04%
- Dynamic Range: 20 Hz – 20 kHz @ 0 dB, >105 dB
- Crosstalk (Mic/Line): Channel to Channel, stimulus at 20 dBu to receptor at -56 dBu, 1 kHz, < -98 dB
- Input Impedance: Balanced (line to ground), 2.2 kΩ, 1%
- Nominal Input Level: Adjustable -56 dB to 0 dB, 7 dB step coarse gain
- Maximum Input Level: -65 dBu to 20 dBu
- Phantom Power: 48 V, Impedance 6.81 kΩ
- Output Impedance: Balanced (line to ground), 95 Ω, 1%
- Output Level: 0 dBu (Nominal), 20 dBu (Max), -40 dBu (Selectable)

USB AUDIO ....
- Port Type: USB-B connector
- Audio: Digital Audio, 2 x 2 bidirectional channels
- Sample Rate: 48 kHz
- Sample Bit Depth: 24-Bit
- Compatible: USB 2.0, USB 3.0

TELEPHONE ....
- Port Type: RJ-11
- Frequency Response:
  - Mic/Line Input to Telephone Out: 250 Hz – 3.4 kHz, +/- 2dB, 4 dBu
  - Telephone In to Mic/Line Out: 250 Hz – 3.4 kHz, +/- 2 dB, -15 dBu
- THD + N:
  - Mic/Line Input to Telephone Out: <0.1% @ 4 dBu
  - Telephone In to Mic/Line Out: <0.3% @ -15 dBu
- Dynamic Range:
  - Mic/Line Input to Telephone Out: > 67 dBu
  - Telephone In to Mic/Line Out: > 87 dBu
- REN: Ringer Equivalent Number 0.2
- Transhybrid Balance: 30 dB (1 kHz, all AC terminations)

VOIP ....
- Port Type: RJ-45, 10/100 Mbps Ethernet Network, Auto Negotiation
- Audio: 5 Lines
- Codec: G.711 uLaw, G.711 ALaw, G.722

ETHERNET ....
- Port Type: RJ-45, 10/100 Mbps Ethernet Network, Auto Negotiation
- IP address: IPv4 (IPv6 upgradeable through future s/w, f/w upgrade)

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DANTE™ and AES67 AUDIO ....
- Port Type: RJ-45 Gigabit Ethernet connectors for Primary and Secondary Ports
- Audio: Digital Audio, 16 x 16 bidirectional channels
- Sample Rate: 48 kHz / 96 kHz
- Sample Bit Depth: 24-Bit
- AES67 Mode: Enabled through Dante controller software

C-LINK EXPANSION BUS ....
- Ports Type: RJ-45 (Cat 5e or Cat 6)
- C-Link In & Out: Proprietary Expansion Bus
- Audio: 64 Expansion channels
- Cable: Solid core, factory terminated Cat 5e or 6 cable
- Distance: Up to 80 ' (24 m)

P-LINK PERIPHERAL BUS ....
- Ports Type: RJ-45 (Cat 5e or Cat 6)
- P-Link In & Out: Proprietary Peripheral Bus
- PoE In:
    - P-Link In Port
    - PoE 802.3 af Mode B, Midspan
    - Power on "spare pairs" 4, 5 and 7, 8
    - Input voltage range: 48 V to 56 V
- Audio: Up to 3 BMA CT units + up to 3 DIALOG 20 Wireless Receiver units + Up to 3 USB Expander units + Up to 3 GPIO Expander units
- Cable: Solid core, factory terminated Cat 5e or 6 cable
- Distance: Up to 200 ' (60 m)

RS-232 ....
- Port Type: DB9 Female
- Settings: 9600/19200/38400/57600/115200 Baud; Serial Echo; Flow Control
- Support: Serial commands

GPIO ....
- Port Type: 5.08 mm Green color Phoenix/Euroblock type male header
- Support: Control, Status, Variable Voltage Control
- Power Pin: 5 VDC @ 350 mA Power Source
- Pin 1 to 4:
    - Open Collector Outputs: 40 VDC @ 250 mA
    - Active Outputs (Source/Sink): 5 VDC @ 25 mA
    - Logic Inputs: 40.2 kΩ pull up
    - Variable Voltage Control Inputs: 5 VDC max
- Ground Pin: GND

USB CONTROL ....
- Port Type: USB-B connector
- Location: Front Panel
- Compatible: USB 2.0, USB 3.0

LEDs ....
- Location: Front Panel
- Status LED:
    - Off: Unit still initializing
    - Blue - Fast Blinking: Stack Syncing in progress
    - Blue - Slow Blinking: Unit not configured
    - Blue - Solid: Configured unit
    - Red - Fast Blinking: Stack Sync error
- Locate LED: Blue - Blinking: Unit "Locate" command received
- Power LED: Blue - Solid: Unit is powered on

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POWER & THERMAL ....
- Port Type: AC Inlet
- Mains Voltage: 100-240 VAC, 50/60 Hz
- Power Consumption: 50 Watts Typical
- Thermal: 170 BTU/Hr Typical
- Operating Temperature: 14 °F (-10 °C) to 104 °F (40 °C) Ambient Temperature

DIMENSION & WEIGHT ....
- RU size: 1 RU
- Width x Depth x Height:
    - Without rack-ears: 17 x 10.7 x 1.7 ” (431 x 273 x 44 mm)
    - With rack-ears: 19 x 10.7 x 1.7 “ (483 x 273 x 44 mm)
- Unit Weight: 9.3 lbs (4.2 Kg) (Approximately)
- Shipping Weight: 13.8 lbs (6.3 Kg) (Approximately)

PACKAGE ....
- Power Cord: 6 ’ (1.8 m), Grounded, Qty 1
- Input Connectors: Terminal Block Connector, 4 Position (Orange), Qty 4
- Output Connectors: Terminal Block Connector, 3 Position (Black), Qty 8
- GPIO Connector: Terminal Block Connector, 6 Position (Green), Qty 1
- C-Link Cable: RJ-45 To RJ-45 Cable, 18 ” (45.7 cm), Qty 1
- VoIP Cable: RJ-45 To RJ-45, 7 ’ (2 m), Qty 1
- USB Cable: USB Type A to Type B, 6 ’ (1.8 m), Qty 1
- Rack Ears: Pre-installed, Qty 2
- Screw/Washer Kit: Rack Decor, Qty 4

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