

# CONVERGE® Pro 2 48VT



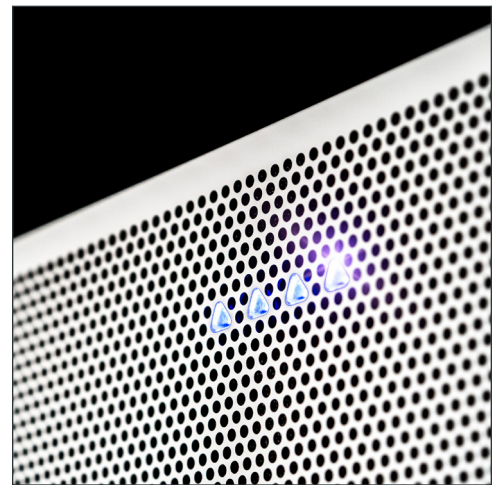
A CONVERGE® Pro 2 is the industry's most advanced professional audio DSP platform for conferencing and sound reinforcement applications. It outperforms in any size room, audio environment, and application.

- > 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.
- > Next-gen Acoustic Echo Cancellation (AEC) on every mic input.
- > Support for SIP-based conferencing up to 5 lines and 5 calls based on line configuration.
- > Analog Telco interface.
- > Built-in USB audio.
- > Built-in DARE™ algorithm for dynamic feedback elimination.
- > Reduced foot-print and power consumption.
- > 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 Conference Controller, BYOD dialer apps or 3rd party control modules.
- > Noise Cancellation with Adaptive-Ambience.



### Everything you need

Supports SIP, 4 configurable mic/line audio inputs, 8 configurable mic/line audio outputs, built-in USB audio, and a Telco interface for POTS calls.



### Easy Integration

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

### APPLICATIONS

- SIP 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 48VT

- PART NUMBER** ..... • 910-3200-008
- 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,  $R_s = 150 \Omega$ , -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 k $\Omega$ , 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 k $\Omega$   
• Output Impedance: Balanced (line to ground), 95  $\Omega$ , 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 bi-directional 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, +/- 2 dB, 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)
- SIP** ..... • Port Type: RJ-45, 10/100 Mbps Ethernet Network, Auto Negotiation  
• Audio: 5 Lines  
• Codec: G.711 uLaw, G.711 ALaw, G.722

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- ETHERNET** ..... • Port Type: RJ-45, 10/100 Mbps Ethernet Network, Auto Negotiation  
• IP address: IPv4 (IPv6 upgradeable through future s/w, f/w upgrade)
- AMPLIFIER OUTPUT** ..... • Speaker Output Port: Dual binding posts  
• Audio: 2 Channels  
• Output Power: 10 W Max, 8  $\Omega$  load  
• Frequency Response: 20 Hz – 22 kHz @ +10 dBu, +/- 0.5 dBu  
• THD + N: 20 Hz – 22 kHz @ +10dBu, 1W, < 0.3 %  
• Dynamic Range: 20 Hz – 22 kHz @ 20 dB, > 102 dB, with 20 kHz digital low pass filter  
• Crosstalk: Channel to Channel, stimulus at 20 dBu, 10 W output to receptor 8  $\Omega$  load, 20 Hz – 22 kHz, < -70 dB
- C-LINK EXPANSION BUS** ..... • Ports Type: RJ-45 (Cat 5e or Cat 6)  
• C-Link In & Out: Proprietary Expansion Bus  
• Audio: 150 Expansion channels  
• Cable: Solid core, factory terminated Cat 5e or 6 cable  
• Distance: Up to 150' (45 M)
- P-LINK PERIPHERAL BUS** ..... • Ports Type: RJ-45 (Cat 5e or Cat 6)  
• P-Link Out: Proprietary Peripheral Bus  
• PoE In:  
- 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 Beamforming Microphone Array 2 units + up to 3 DIALOG 20 USB 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 or VISCA camera control
- 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 k $\Omega$  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

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- 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
- LOCATE BUTTON** .....
- Sensor Type: Capacitive Touch Button
  - Location: Front Panel
- 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 ft (1.8 m), Grounded, Qty 1
  - Input Connectors: Terminal Block Connector, 4 Position (Orange), Qty 12
  - 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 in (45.7 cm), Qty 1
  - Network 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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