

# CONVERGE® Pro 2 128VT



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.

- > 12 Mic/Line inputs and 8 mic/line outputs.
- > Support for SIP-based conferencing up to 5 lines and 5 calls based on line onfiguration.
- > Analog Telco interface.
- > Built-in USB audio.
- > 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 Conference Controller, BYOD dialer apps or 3rd party control modules ext-gen Acoustic Echo Cancellation processing.
- > Reduced footprint and power consumption.

#### APPLICATIONS:

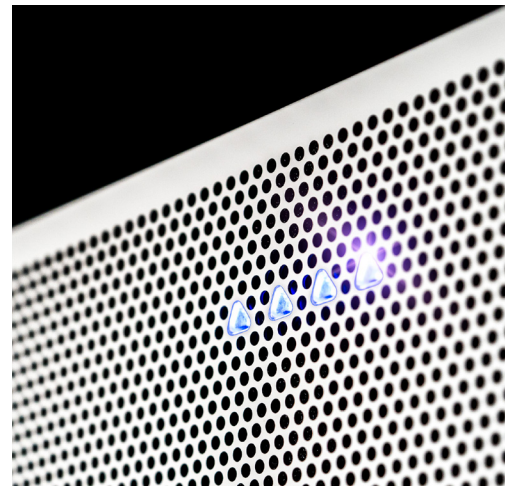
- VoIP Conferencing
- POTS Conferencing
- Audio Recording
- Pre-recorded Digital Audio
- Audio Networking over a LAN
- Web Conferencing
- UC Audio Conferencing
- Sound Reinforcement
- Bridge Web Conferences

#### WORKSPACES:

- Conference Rooms
- Training Rooms
- Lecture Halls
- Courtrooms
- Telemedicine Theaters
- Houses of Worship

#### Everything you need:

Supports SIP, 12 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 2-Channel Wireless Microphone System, and other peripheral devices through P-Link.

*It's All About the Architecture!®*

# CONVERGE® Pro 2 128VT

## MIC/LINE INPUTS & OUTPUTS

- Inputs: Balanced audio inputs, 3.81mm Orange color Phoenix/Euroblock type male header, Push-on mini-terminal block
- Outputs: Balanced audio outputs, 3.81mm Black color Phoenix/Euroblock type male header, Push-on mini-terminal 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 bidirectional channels
- Sample Rate: 48 kHz
- Sample Bit Depth: 24-Bit
- Compatible: USB 2.0, USB 3.0

## TELEPHONE

- Port Type: RJ11
- 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)

## 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)

## C-LINK EXPANSION BUS

- Ports Type: RJ-45 (Cat5e or Cat6)
- C-Link In & Out: Proprietary Expansion Bus
- Audio: 150 Expansion channels
- Cable: Solid core, factory terminated Cat5e or 6 cable
- Distance: Up to 80' (24M)

## P-LINK PERIPHERAL BUS

- Ports Type: RJ-45 (Cat5e or Cat6)
- P-Link In & Out: Proprietary Peripheral Bus
- PoE In:
  - P-Link In Port
  - PoE 802.3af 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 Wireless Receiver units + Up to 3 USB Expander units + Up to 3 GPIO Expander units
- Cable: Solid core, factory terminated Cat5e or 6 cable
- Distance: Up to 200' (60 M)
- Long Distance P-Link:
  - Increases P-Link distance from 200 ft to 650 ft
  - 650 ft (200M) maximum cable distance between any two units
  - Cat6, 550 MHz, 23 AWG, solid conductor cable
  - Do not use Copper Clad Aluminum (CCA) cable
  - Available only for BFM2 peripheral units
  - 48 V PoE Midspan Mode B power injector for 1 BFM2 unit
  - 56 V PoE Midspan Mode B power injector for 3 BFM2 units

## RS232

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

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**GPIO**

- Port Type: 5.08 mm Green color Phoenix/Euroblock type male header
- Support: Control, Status, Variable Voltage Control
- Power Pin: 5 V DC @ 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

**LOCATE BUTTON**

- Sensor Type: Capacitive Touch Button
- Location: Front Panel

**POWER & THERMAL**

- Port Type: AC Inlet
- Mains Voltage: 100-240 V AC, 50/60Hz
- 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" W x 10.73" D x 1.72" H (43.2 cm W x 27.3 cm D x 4.4 cm H)
  - With rack-ears: 19" W x 10.73" D x 1.72" H (48.3 cm W x 27.3 cm D x 4.4 cm H)
- 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, 3 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
- VoIP Cable: RJ-45 To RJ-45, 7 ft (2 M), Qty 1
- USB Cable: USB Type A to Type B, 6 ft (1.8 M), Qty 1
- Rack Ears: Pre-installed, Qty 2
- Screw/Washer Kit: Rack Decor, Qty 4

**PART NUMBER**

- 910-3200-009 CONVERGE Pro 2 128VT

**SALES AND INQUIRIES****Headquarters**

5225 Wiley Post Way  
Suite 500  
Salt Lake City, UT 84116

**US & Canada**

Tel: +1 801.975.7200

**International**

Tel: +1 801.975.7200

**Sales**

Tel: +1 801.975.7200  
sales@clearone.com

**TechSupport**

Tel: +1 801.975.7200  
audiotechsupport@clearone.com