

# 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.

- > 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.
- > Built-in Skype for Business client.
- > 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 Pro Console software.
- > Flexible control options include Touch-Panel Controller, BYOD dialer apps or 3rd party control modules.
- > Reduced foot-print and power consumption.

#### APPLICATIONS:

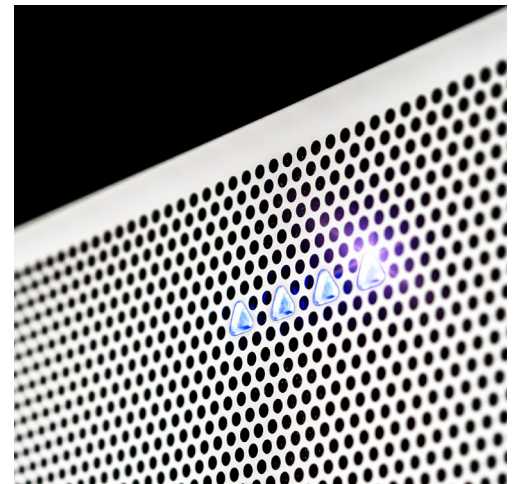
- VoIP Conferencing
- POTS conferencing
- Audio recording
- Pre-recorded digital audio
- Audio networking over a LAN
- Web conferencing
- UC audio conferencing
- Sound reinforcement
- Bridge web conferences

#### WORKSPACES:

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

#### Everything you need:

Supports SIP or Skype for Business, Dante®, 4 configurable mic/line audio inputs, 8 configurable mic/line audio outputs, built-in USB audio, and a Telco interface.



#### Easy Integration

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

*It's All About the Architecture!®*

# CONVERGE Pro 2 48VTD

## 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: 20Hz – 22kHz @ +4dBu, +/- 0.5dBu
- EIN (Equivalent Input Noise): 20kHz BW, max gain, Rs = 150Ω, -126dBu
- THD + N (Total Harmonic Distortion + Noise):
  - 20Hz – 22kHz @ +4dBu, line level, 0.006%
  - 20Hz – 22kHz @ -56dBu, mic level, <0.04%
- Dynamic Range: 20Hz – 20kHz @ 0dB, >105dB
- Crosstalk (Mic/Line): Channel to Channel, stimulus at 20dBu to receptor at -56dBu, 1kHz, < -98dB
- Input Impedance: Balanced (line to ground), 2.2kΩ, 1%
- Nominal Input Level: Adjustable -56dB to 0dB, 7dB step coarse gain
- Maximum Input Level: -65dBu to 20dBu
- Phantom Power: 48V, Impedance 6.81kΩ
- Output Impedance: Balanced (line to ground), 95Ω, 1%
- Output Level: 0dBu (Nominal), 20dBu (Max), -40dBu (Selectable)

## USB AUDIO

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

## TELEPHONE

- Port Type: RJ11
- Frequency Response:
  - Mic/Line Input to Telephone Out: 250Hz – 3.4kHz, +/- 2dB, 4dBu
  - Telephone In to Mic/Line Out: 250Hz – 3.4kHz, +/- 2dB, -15dBu
- THD + N:
  - Mic/Line Input to Telephone Out: <0.1% @ 4dBu
  - Telephone In to Mic/Line Out: <0.3% @ -15dBu
- Dynamic Range:
  - Mic/Line Input to Telephone Out: >67dBu
  - Telephone In to Mic/Line Out: >87dBu
- REN: Ringer Equivalent Number 0.2
- Transhybrid Balance: 30dB (1kHz, all AC terminations)

## VOIP

- Port Type: RJ-45, 10/100Mbps Ethernet Network, Auto Negotiation
- Audio: 5 Lines
- Codec: G.711 uLaw, G.711 ALaw, G.722
- Skype for Business (S4B):
  - Microsoft Skype for Business support (1 client)
  - Choose either regular VoIP or S4B through configuration

## ETHERNET

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

## DANTE™ AUDIO

- Port Type: RJ-45 Gigabit Ethernet connectors for Primary and Secondary Ports
- Audio: Digital Audio, 16 x 16 bidirectional channels
- Sample Rate: 48kHz / 96kHz
- Sample Bit Depth: 24-Bit

## C-LINK EXPANSION BUS

- Ports Type: RJ-45 (Cat5e or Cat6)
- C-Link In & Out: Proprietary Expansion Bus
- Audio: 64 Expansion channels
- Cable: Solid core, factory terminated Cat 5e or 6 cable
- Distance: Up to 150' (45M)

## 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: 48V to 56V
- 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' (60M)
- 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

## CONVERGE Pro 2 48VTD

- Do not use Copper Clad Aluminum (CCA) cable
- Available only for BFM2 peripheral units
- 48V PoE Midspan Mode B power injector for 1 BFM2 unit
- 56V 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

**GPIO**

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

**TOUCH SENSOR**

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

**POWER & THERMAL**

- Port Type: AC Inlet
- Mains Voltage: 100-240V 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:
  1. Without rack-ears: 17"W x 10.73"D x 1.72"H (43.2cmW x 27.3cmD x 4.4cmH)
  2. With rack-ears: 19"W x 10.73"D x 1.72"H (48.3cmW x 27.3cmD x 4.4cmH)
- Unit Weight: 9.3 lbs (4.2 kg) (Approximately)
- Shipping Weight: 13.8 lbs (6.3 kg) (Approximately)

**PACKAGE**

- Power Cord: 6' (1.8M), 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" (45.7cm), Qty 1
- VoIP Cable: RJ-45 To RJ-45, 7' (2M), Qty 1
- USB Cable: USB Type A to Type B, 6' (1.8M), Qty 1
- Rack Ears: Pre-installed, Qty 2
- Screw/Washer Kit: Rack Decor, Qty 4

**PART NUMBER**

- 910-3200-008-D CONVERGE Pro 2 48VTD

## SALES AND INQUIRIES

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