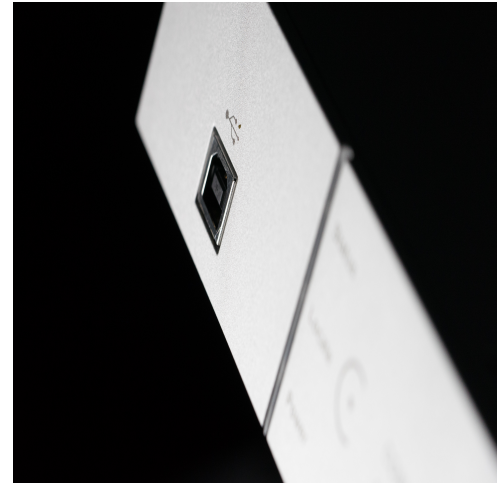# ClearOne®

CONVERGE® Pro 2 128VTD

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.

> 12 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 CONVERGE CONSOLE® AI software.

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

> Reduced foot-print and power consumption.

Everything you need
Supports SIP or Skype for Business, Dante®, 12 configurable mic/line audio inputs, 8 configurable mic/line audio outputs, built-in USB audio, and a Telco interface for POTS calls.
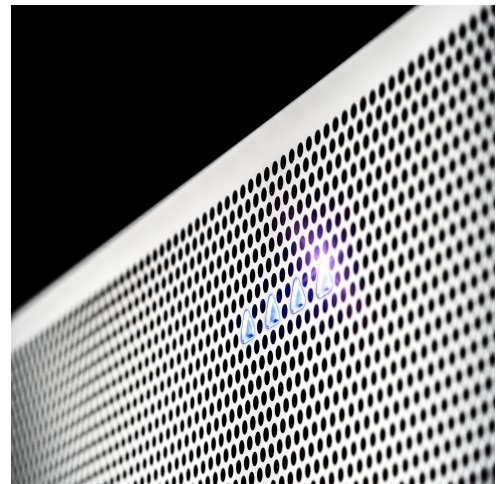
APPLICATIONS
• VoIP conferencing
• POTS conferencing
• Audio recording
• Pre-recorded digital audio
• Audio networking over a LAN
• Web conferencing
• UC audio conferencing
• Sound reinforcement
• Bridge web conferences

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

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 128VTD

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 128VTD

- •- 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
- •910-3200-009-D CONVERGE Pro 2 128VTD