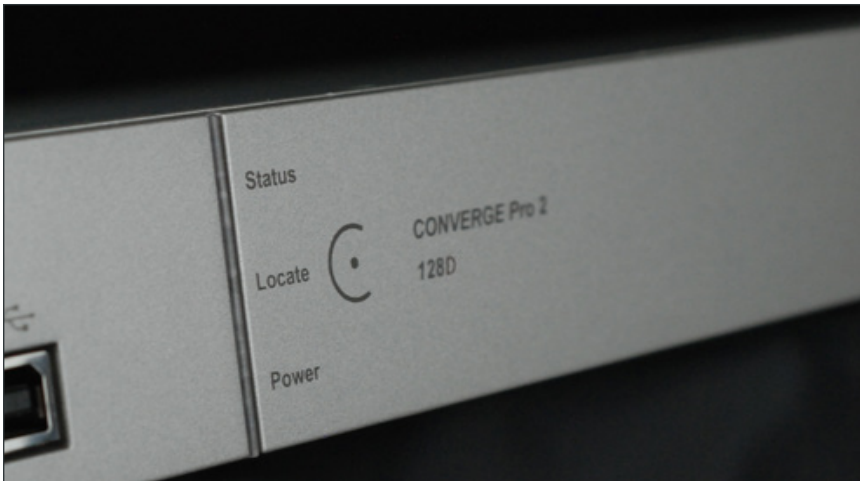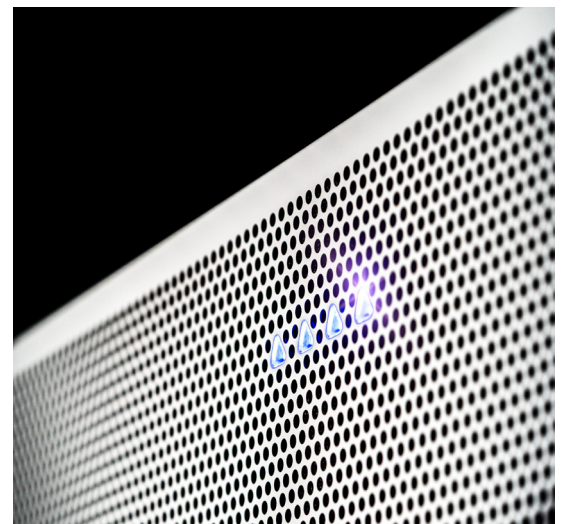# ClearOne®

CONVERGE® Pro 2 128D

An advanced multi-channel microphone automixer with built-in support for Dante audio networking, and the latest audio DSP algorithms.

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

> 12 mic/line inputs and 8 mic/line outputs.

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

> Built-in USB audio.

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

> Native Audio based VISCA camera control

> 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.

> "P-Link" bus to connect peripheral devices.

Everything you need
Supports Dante®, 12 configurable mic/line audio inputs, 8 configurable mic/line audio outputs and built-in USB audio.

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

APPLICATIONS

• PC-based conferencing & Unified Communications
•Dante™ for audio networking
• Video codec-based Video Conferencing

WORKSPACES

• Corporate Offices
• Training Rooms
• Entertainment Venues
• Lecture Halls
• Courtrooms
• Telemedicine Theaters
• Auditoriums

It's All About the Architecture!®

CONVERGE® Pro 2 128D

PART NUMBER ·····························
- 910-3200-001-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 and USB 3.0

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

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 ft (24 M)

ClearOne®

DSP MIXER

CONVERGE® Pro 2 128D

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 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 ft (60M)

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

TOUCH SENSOR ………………………….
- 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 ºF (-10 ºC) to 104 ºF (40 ºC) Ambient Temperature

CONVERGE® Pro 2 128D

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, 3 Position (Orange), Qty 12
- Output Connectors: Terminal Block Connector, 3 Position (Orange), 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
- 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