



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.

The 48V model mixer has 4 inputs with AEC, 8 outputs, built-in VoIP/Skype for Business interface, USB audio; GPIO, RS232, IP control interfaces; and P-Link and C-Link expansion buses.

CONVERGE Pro 2 is optimized to work with the new Beamforming Mic Array 2 and DIALOG® 20 2-Channel Wireless Microphone System through its native connection.

Powerful Architecture

- + 4 Mic/Line inputs with AEC
- + Built-in VoIP: 5 lines
- + Built-in Skype for Business Client
- + Separate ports for VoIP/Skype for Business and Ethernet
- + Built-in USB for PC-based conferencing
- + Reduced footprint and power consumption

Scalable Connectivity

- + Standalone and daisy-chained system
- + Stack up units up to 144 Mic/Line inputs
- + Expansion bus "C-Link" with 64 channels
- + "P-Link" bus to connect peripheral devices

Configuration & Management

- + New CONSOLE® software
- + Auto-discovery of devices
- + MatrixView™ for entire system
- + FlowView™ for visualized audio signal paths
- + System monitoring and troubleshooting

Audio Signal Processing

- + Next-gen Acoustic Echo Cancellation processing
- + Distributed Echo Cancellation® on every mic input
- + Noise Cancellation with Adaptive-Ambience
- + Acoustic Intelligence with faster convergence
- + DARE™ feedback elimination
- + Advanced microphone gating

Applications

- + VoIP conferencing
- + PC-based conferencing & Unified Communications
- + Microsoft Skype for Business audio conferencing

Flexible Control Options

- + Dialer app for Windows, Mac, iOS, Android
- + Touch Panel Controller with tabletop and wall mount options
- + 3rd-party control modules



APPLICATIONS

Boardrooms

Conference Rooms

Huddle Rooms

Training Rooms

Lecture Halls

Courtrooms

Auditoriums

Telemedicine Facilities

PRODUCT SPECIFICATIONS

Unless otherwise specified, all measurements are performed with a 20Hz to 22kHz BW (no-weighting).

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, $R_s = 150\Omega$, -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), 2.2k Ω , 1%

Nominal Input Level: Adjustable -56dB to 0dB, 7dB step coarse gain

Maximum Input Level: -65dBu to 20dBu

Phantom Power: 48V, Impedance 6.81k Ω

Output Impedance: Balanced (line to ground), 95 Ω , 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

VOIP

Port Type: RJ-45, 10/100Mbps Ethernet Network, Auto Negotiation
Audio: 5 Lines

Number of Lines	Maximum Number of Calls per Line
1	5
2	5
3	4
4	3
5	2

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)

AMPLIFIER OUTPUT

Speaker Output Port: Dual binding posts
Audio: 2 Channels

Output Power: 10W Max, 8 Ω load

Frequency Response: 20Hz – 22kHz @ +10dBu, +/- 0.5dBu

THD + N: 20Hz – 22kHz @ +10dBu, 1W, <0.3%

Dynamic Range: 20Hz – 22kHz @ 20dB, >102dB, with 20kHz digital low pass filter

Crosstalk: Channel to Channel, stimulus at 20dBu, 10W output to receptor 8 Ω load, 20Hz – 22kHz, < -70dB

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 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 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
- 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: 40.2k Ω 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:

- Without rack-ears: 17"W x 10.73"D x 1.72"H (43.2cmW x 27.3cmD x 4.4cmH)
- 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, 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" (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 NUMBERS

Part Number	Product
910-3200-001	CONVERGE Pro 2 128
910-3200-001-D	CONVERGE Pro 2 128D
910-3200-002	CONVERGE Pro 2 128T
910-3200-002-D	CONVERGE Pro 2 128TD
910-3200-003	CONVERGE Pro 2 128V
910-3200-003-D	CONVERGE Pro 2 128VD
910-3200-005	CONVERGE Pro 2 48T
910-3200-006	CONVERGE Pro 2 48V
910-3200-004	CONVERGE Pro 2 120
910-3200-007	CONVERGE Pro 2 012
910-3200-101	CONVERGE Pro 2 128SR
910-3200-101-D	CONVERGE Pro 2 128SRD

SALES AND INQUIRIES

Headquarters

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

US & Canada

Tel: 801.975.7200
 TollFree: 800.945.7730
 Fax: 801.303.5711

International

Tel: +1.801.975.7200
 global@clearone.com

Sales

Tel: 801.975.7200
 sales@clearone.com

TechSupport

Tel: 801.974.3760
 tech.support@clearone.com