



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 128D model mixer has 12 inputs with AEC, 8 outputs, USB audio; GPIO, RS232, IP control interfaces; P-Link and C-Link expansion buses; and Dante™ digital audio interfaces.

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

- + 12 Mic/Line inputs with AEC
- + Built-in USB for PC-based conferencing
- + Built-in Dante™ for networked audio
- + 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

- + PC-based conferencing & Unified Communications
- + Dante™ for audio networking
- + Video codec-based Video 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 20 Hz to 22 kHz BW (no-weighting).

MIC/LINE INPUTS & OUTPUTS

Inputs: Balanced audio inputs, 3.81 mm Orange color Phoenix/Euroblock type male header, Push-on mini-terminal block

Outputs: Balanced audio outputs, 3.81 mm 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 Ω , 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 Ω

Output Impedance:

Balanced (line to ground), 95 Ω , 1%

Output Level:

0dBu (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

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 (Cat5e or Cat6)

C-Link In & Out: Proprietary Expansion Bus

Audio: 64 Expansion channels

Cable: Solid core, factory terminated Cat5e or 6 cable

Distance: Up to 150 ft (45 m)

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 ft (60 m)

Long Distance P-Link:

- Increases P-Link distance from 200 ft to 650 ft
- 650 ft (200 m) 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

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 k Ω 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 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:

1. Without rack-ears:
17 in W x 10.73 in D x 1.72 in H (43.2 cm W x 27.3 cm D x 4.4 cm H)
2. With rack-ears:
19 in W x 10.73 in D x 1.72 in 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

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 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

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