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, any audio environment, any application.

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 VoIP: 5 lines
- Built-in Skype for Business Client
- Built-in Telco with ClearEffect™ processing
- Built-in USB for PC-based conferencing
- Built-in Dante™ for networked audio
- Reduced footprint and power consumption

**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

**Scalable Connectivity**
- Standalone and daisy-chained system
- Stack units for up to 144 Mic/Line inputs
- Expansion bus “C-Link” with 64 channels
- “P-Link” bus to connect peripheral devices

**Any Application**
- VoIP/POTS conferencing
- PC-based conferencing & Unified Communications
- Microsoft Skype for Business audio conferencing
- Sound Reinforcement applications
- Dante™ for audio networking

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

**Flexible Control Options**
- Dialer app for Windows, Mac, iOS, and Android
- Touch Panel Controller with tabletop and wall mount options
- 3rd-party control modules
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PRODUCT SPECIFICATIONS

Unless otherwise specified, all measurements are performed with a 20Hz to 22kHz BW (no-weighting). Specifications are applicable based on the SKU types.

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
20kHz BW, max gain, Rs = 150Ω, -126dBu

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

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<th>Maximum Number of Calls per Line</th>
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Codec:
G.711 uLaw
G.711 A-law
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

Amplifier Output (Applicable to 48T SKU)

Speaker Output Port: Dual binding posts

Audio: 2 Channels

Output Power: 10W Max, 8Ω load

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

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

Dynamic Range:
20Hz – 22kHz @ 20dB, >102dB, 20kHz – 22kHz, <0.04%

Crosstalk:
Channel to Channel, stimulus at 20dBu, 10W output to receptor 8Ω 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 Ft (200M)

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 (BFM2) 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 Ft (45M)

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: 40.2kΩ pull up Variable Voltage Control Inputs: 5VDC max

Ground Pin: GND
PRODUCT SPECIFICATIONS

Unless otherwise specified, all measurements are performed with a 20Hz to 22kHz BW (no-weighting). Specifications are applicable based on the SKU types.

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 x 10.73 x 1.72in or 43.2 x 27.3 x 4.4cm
2. With rack-ears:
   19 x 10.73 x 1.72" or 48.3 x 27.3 x 4.4cm
Unit Weight: 9.3 lbs (Approximately)
Shipping Weight: 13.8 lbs (Approximately)

Package (as applicable based on SKUs)
Power Cord: 6 Ft (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 Inches (0.45M), Qty 1
Telephone cable: 12 Ft (3.6M), Qty 1
VoIP Cable: RJ-45 To RJ-45, 7 Ft (2M), Qty 1
USB Cable: USB Type A to Type B, 6 Ft (1.8M), Qty 1
Rack Ears: Pre-installed, Qty 2
Screw/Washer Kit: Rack Decor, Qty 4

Part Numbers
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