

CONVERGE™ PRO | TH20

Professional Conferencing Telephone Interface

ClearOne

The successor to the industry-leading XAP TH2. The TH20 enables conference call functionality for Converge™ Pro installations with its single telephone line connection. Up to 16 units can be linked for greatly expanded conferencing capability. It also adds two line-level inputs and outputs for increased system capacity.



ADVANCED
TELEPHONE
INTERFACE FOR
CONVERGE PRO
PLATFORM

APPLICATIONS

Conference Rooms
Boardrooms
Courtrooms
Distance Learning Facilities
Convention Centers and Hotels
Training Rooms
Telemedicine Facilities
Houses of Worship

ADVANTAGES

Advanced Telephone Feature Set

- + Signal Processing Improvements
 - > Telephone noise cancellation on RX channel
 - > ClearEffect™ speech enhancement
 - > Automatic level control on RX channel
 - > Caller ID
 - > Selectable ringers
- + Increased I/O capabilities
 - > 2-line level input/output
 - > Audio expansion bus
- + Management Improvements
 - > Integrated Ethernet and USB connections
 - > SNMP and HTML remote management agents
 - > Event scheduler
 - > Diagnostic console
- + Simplified Configuration Software
 - > Drag & drop A/V and channel objects
 - > Selectable views—unit, matrix, channel

Superior Audio Performance

- + Digital signal processing technology ensures crystal clear audio
- + Echo cancellation eliminates telephone line echo
- + Automatic level control
- + Digital anti-alias filter minimizes hum and Central Office switching noise

Configuration Flexibility & Scalability

- + Connects to ClearOne's Converge Pro products through expansion bus port
- + Conference up to 16 callers in a Converge Pro installation with multiple TH20s
- + Configure through included Console™ software

Ease of Use & Control

- + Speed dial stores 10 frequently dialed numbers
- + Incoming call ringing is heard through the loudspeaker
- + Selectable auto-answer and auto-disconnect
- + Users can dial telephone numbers, access voice mail, pagers, etc. without the use of a separate telephone device through integrated DTMF (touch-tone) dialing
- + Software-selectable country configurations

HDConference™

> CONVERGE PRO TH20 BACK PANEL



> SPECIFICATIONS



Telephone Audio Performance

Conditions: Unless otherwise specified, all measurements are performed with Transmit Limiter and Receive ALC disabled
Frequency Response: 250Hz to 3.3 kHz ± 1 dB
THD+N: < 0.3% re-max level 250 Hz to 3.3 kHz
SNR: > 62 dB re-max level

Telephone Noise Cancellation

Noise Cancellation 6-15 dB attenuation

Telco Line Echo Cancellation

Tail Time: 31 ms
Null: 55 dB nominal

Telco Line

RJ-11
POTS (plain old telephone service) or analog extension from a PBX
A-lead supervision provided

Telco Set

RJ-11
POTS (plain old telephone service) or analog extension from a PBX
A-lead supervision provided

Audio Performance

Conditions: Unless otherwise specified, all measurements are performed with a 20 Hz to 22 kHz BW limit (no weighting)
Frequency Response: 20 Hz to 22 kHz ± 1 dB Rs=150 Ω
THD+N: < 0.02%
Dynamic Range: 100 dB (non A-weighted)
Crosstalk < -91 dB re 20 dBu @ 20 kHz channel to channel

Line Inputs 1, 2

Push-on mini-terminal block, balanced, bridging
Impedance: < 10 K Ω
Nominal Level: 0 dBu
Maximum Level: 20 dBu

Line Outputs 1, 2

Push-on mini-terminal block, balanced
Impedance: < 50 Ω
Nominal Level: 0 dBu
Maximum Level: 20 dBu

Expansion Bus In/Out

Proprietary Network
RJ-45 (2), 1.9 Mbps, 110 K Ω
Impedance
Category 5 twisted-pair cable, 200' maximum cable length between any two Converge Pro devices

Ethernet

Autoswitching with Quality of Connection (QoC)
10/100 Mbps Ethernet Network Port
10/100 Mbps Ethernet PC Port
RJ-45 Connectors

RS-232

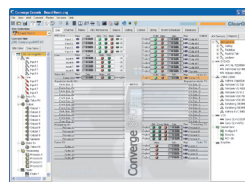
Serial Command Protocol Only (Console software not supported on RS-232 port)
DB-9 female
9,600/19,200/38,400/57,600/115,200 baud rate; 8 bits, 1 stop bit, no parity
Hardware flow control on (default)/off

USB

Version 2.0 compatible
Type: B-connector

Control/Status Ports

DB-25 female A/B (2)
Inputs A/B: active low (pull to ground)
Outputs A/B: open collector, 40 VDC max, 40 mA each
+3.3 VDC pins (2) (300 mA over-current protected)



Configuration & Administration

Software
Converge™ Console

Power Input Range

Auto-Adjusting
100-240 VAC; 50/60 Hz

Power Consumption

30 W Typical

Dimensions (L x D x H)

17.25" x 10.25" x 1.75"
43.8 x 26 x 4.5 cm

Weight

7.5 lbs/3.3375 kg unit weight
12 lbs/5.4kg shipping weight

Operating Temperature

14° F/-10° C to 122° F/50° C ambient unit temperature

Approvals & Compliance
AES48-2005: AES standard on interconnections — Grounding and EMC practices — Shields of connectors in audio equipment containing active circuitry (self certified)

U.S.A. & Canada
CSA safety listed
EU Countries

RoHS compliant
WEEE compliant

See product manual for additional details

Optional Accessories

Converge Pro 880
Converge Pro 880T
Converge Pro 8i
Converge SR 1212
Converge SR 1212A
Converge Pro 840T
Converge Pro TH20
Tabletop Controller

Part Number

910-151-820 Converge Pro TH20
Telephone Interface for Converge/
Converge Pro Platform

> CLEARONE LOCATIONS

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