

CONVERGE™ PRO | TH20

Professional Conferencing Telephone Interface



The successor to the industry-leading XAP TH2. The TH20 enables conference call functionality for Convergetm 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



> 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 \pm 1dB
 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 \pm 1dB 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: < 5 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/3.375 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 Pro TH20
 Converge SR1212
 Tabletop Controller
 Button Microphone - Omni-Directional
 Button Microphone – Uni-Directional
 Delta Microphone
 Tabletop Microphone – Uni-Directional
 JBL Wall-Mount Speakers

Part Number

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

> CLEARONE LOCATIONS

Headquarters:
Salt Lake City, UT USA
 5225 Wiley Post Way
 Suite 500
 Salt Lake City, UT 84116
 Tel: 801-975-7200
 Toll Free: 800-945-7730
 Fax: 801-977-0087
 sales@clearone.com

Latin America
 Tel: 801-974-3621
 global@clearone.com

EMEA
 Tel: 44 (0) 1189 036 053
 global@clearone.com

APAC
 Tel: 801-303-3388
 global@clearone.com

