



Conference Room Audio Solutions



ClearOne® Conferencing Solutions

Premium Audio Conferencing Systems and Conference Phones



ClearOne® is a leading global provider of premium audio conferencing systems. Developing audio products since 1981, ClearOne introduced their first professional audio conferencing systems to the market in 1990. Since that time, ClearOne has expanded and diversified their product line to meet all types of audio conferencing needs, from the office desktop to large group conferencing venues. The reliability, flexibility and performance of the comprehensive solutions save organizations time and money by creating natural environments for effective and efficient group communication.

RAV™ Conferencing Systems

RAV (pronounced “rave”) is a revolutionary audio conferencing system that features sophisticated audio technologies found in ClearOne’s industry-leading installed product line, and is as easy to set up and use as our tabletop phones. RAV easily interfaces with any web and video conferencing system, and it comes complete with everything needed for quick and simple installation.

RAV 600 – includes an audio mixer with an integrated telephone interface and amplifier, two Bose® ceiling- or wall-mount speakers (or no speakers), a wireless or wired control unit, RAV-Ware™ software, and two RAV microphone pods comprised of three microphones each. The system also includes Ethernet control for remote management and configuration capabilities.

RAV 900 – includes all the features of the RAV 600, plus it adds an extra microphone pod to deliver optimal voice pickup in larger rooms.

- **Interface with rich-media systems:**
 - Video conferencing system
 - Web conferencing system
 - IP telephony system/handset
 - Computer sound card (for amplifying PC audio in the room)
- **Use in medium and large conference rooms as well as executive offices**
- **Ideal for existing room structures – no complex wiring or installation required**
- **Facilitate evolving conference room needs – use audio now, add video or web later**
- **Connect with any audio conference device on the far end – experience high quality sound for both send and receive – no wideband required**
- **Interface with AMX and Crestron control systems**
- **Add audio conferencing functionality to existing in-room sound systems, or use RAV’s amplifier and speakers**
- **Control remotely via Ethernet connection**



ClearOne®

Max™ Conference Phones

ClearOne's MAX™ conference phones are extremely easy to use, and deliver full-duplex audio for a wide variety of conference room settings at an affordable price.

The MAX family delivers unprecedented expansion capabilities. Instead of providing only expansion microphones, MAX offers multiple linked phones, each with microphones, loudspeakers, and controls for outstanding full-room coverage. No matter where participants are seated, conversations are natural and effortless.



- Use in small conference rooms, executive offices and home offices
- Connect up to 4 total wired MAX phones to accommodate medium to large conference rooms and training rooms
- Ideal for use in unique room configurations, such as U-shaped table layout
- Separate wired MAX phones and use in separate rooms with extra base unit
- Use MAX Wireless in rooms without phone lines within 150 feet of base unit



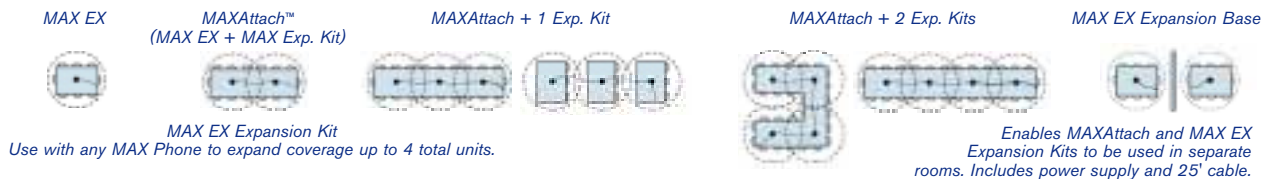
MAX EX – a single unit conference phone, perfect for executive offices and small conference rooms. It can be linked with as many as three additional MAX phones for use in larger conference rooms with the MAX EX Expansion Kit.

MAXAttach™ – truly a “one size fits all” conferencing solution. It comes with two phones, for greater coverage in larger conference rooms, and can also be expanded up to four linked phones using the MAX EX Expansion Kit. Additionally, the two phones can be used in separate rooms with the purchase of an extra power supply base unit.

MAX Wireless – the industry’s first wireless conference phone. It offers the audio quality of MAX EX without power or telephone lines, turning any room into a conference room. It comes with a single wireless conference phone that can be used anywhere within 150 feet of the base unit.

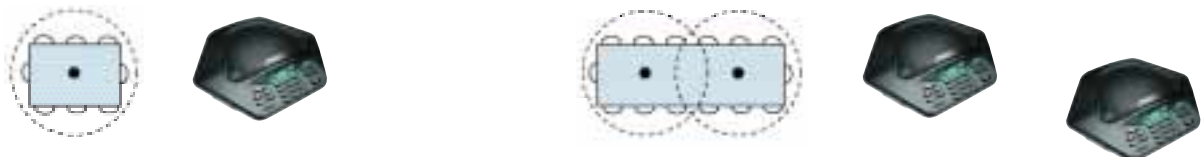
MAXAttach Wireless – another industry first in conferencing technology. MAXAttach Wireless comes with two wireless phones that connect to a single base unit, providing expanded coverage in medium-sized rooms.

Room Applications



MAX Wireless is a single conference phone that connects wirelessly to a base unit for use in any small room.

MAXAttach Wireless comes with two wireless phones that connect to a single base unit, providing expanded coverage in medium-sized rooms.



RAV™ Conferencing Systems Specifications

AUDIO PERFORMANCE

Conditions: Unless otherwise specified, all measurements are performed with a 22 Hz to 15 kHz BW limit (no weighting)

Audio Mixer

AEC tail time: 128 ms
Adaptive noise cancellation: (6 – 18 dB)
Gating: Adaptive ambient, 1st mic priority, look-ahead gating, NOM attenuation
Audio bandwidth: 16 kHz with videoconferencing or other full-band networks

Microphone Pod

Coverage: 360 degrees
Connection: RJ-45 with Cat. 5, Link In/Out Ports
Maximum Distance from Base Mixer: 50' (RAV 900), 75' (RAV 600)
Frequency Response: 60 Hz – 14 kHz (+/-1 dB)
THD+N: <0.08% (-45 dBu input @ 1 kHz)
Sensitivity: -45 dBu
Input Level: -6 dBu for 1 kHz 94 dB SPL microphone input
Dynamic Range: > 65 dB

Line Input

Connection: Unbalanced RCA
Gain: -10 dBu nominal, adjustable from -14 dB to +18 dB
Nominal Level: -10 dBu
Maximum Level: +9 dBu
Impedance: > 10 kOhm

Line Output

Connection: Unbalanced RCA
Nominal Level: -10 dBu, adjustable from -14 dB to +18 dB
Maximum Level: +9 dBu
Frequency Response: 40 Hz – 15 kHz (+/-1 dB)
Dynamic Range: > 80 dB
THD+N: < 0.02% (+6 dBu input @ 1 kHz)

Playback/Record Input

Connection: Unbalanced RCA
Gain: -10 dBu nominal, adjustable from -14 dB to +18 dB
Nominal Level: -10 dBu
Maximum Level: +9 dBu
Impedance: > 10 kOhm

Playback/Record Output

Connection: Unbalanced RCA
Nominal Level: -10 dBu, adjustable from -14 dB to +18 dB
Maximum Level: +9 dBu
Frequency Response: 40 Hz – 15 kHz (+/-1 dB)
Dynamic Range: > 80 dB
THD+N: < 0.02% (+6 dBu input @ 1 kHz)

Loudspeaker

Connection: Left and right push terminals
Power: 10 Watts into 8 Ohm load
Impedance: 8 Ohm
Frequency Response: 60 Hz – 15 kHz (+/-1 dB)
Dynamic Range: > 80 dB
THD+N: < 0.5% (+5 dBu line input @ 1 kHz)
Output Level: 90 dB SPL output @ 1 meter

TELEPHONE INTERFACE

Conditions: All measurements taken with ALC disabled.

Connection: RJ-11 (Set and Line jacks)
Tail Time: 30 ms
Frequency Response: 250 Hz to 3.3 kHz (+/-1 dB)
THD+N: < 0.2% (+7 dBu line input @ 1 kHz)
Dynamic Range: > 60 dB

RS-232 Control Port

DB9 female
9,600/19,200/38,400/57,600 (default)/115,200
Baud rate: 8 bits, 1 stop, no parity
Hardware flow control on (default)/off

Communication I/O

10/100 Ethernet Control Port:
RJ-45 with LED indicators for link, duplex and activity status.

USB 1.1 Configuration Port

Slave port

Power Supply

Primary Voltage: 100 to 240 VAC
Auto-Sensing, 50-60 Hz

VISCA Camera Port

DIN, 9600 baud, no Flow Control

Dimensions (W x D x H)

Mixer: 17" x 7.5" x 2"
(43.2 cm x 19.1 cm x 5.1 cm)
RF Controller: 10.5" x 4.5" x 2.75"
(26.7 cm x 11.4 cm x 6.9 cm)
Mic Pod Diameter: 7" (17.8 cm),
Height: 1.5" (3.8 cm)

Weight

Mixer: 4.5 lb (2 kg)
RF Controller: 2.0 lb (.9 kg)
Mic Pod: 1.1 lb (.5 kg)

Environmental

Operating Temp: 32-122° F (0-50° C)

Optional Accessories

Go to www.clearone.com to find out more regarding other conferencing products:
Wired Controller
Remote Antenna
Custom Furniture
Document Cameras
Roll-About Carts

MAX® Conferencing Phones Specifications

Echo Cancellation

Tail time: 60 ms x 3

Noise Cancellation

Dynamic noise cancellation

Telephone Connection

Analog PBX or PSTN line
RJ-11C, -12 dBm nominal

Radio Frequency

MAX Wireless:
2.4 GHz WDCT
1.8 GHz DECT
(4) 32 kbps full duplex
MAXAttach Wireless:
2.4 GHz WDCT

Keypad

Alphanumeric standard keypad

Loudspeaker

Volume: 90d Bspl A weighted @ 1 ft
Bandwidth: 200 Hz–3.3 kHz

Record Output

Connector: 2.5 mm mono audio jack
Impedance: <1000 ohms
Bandwidth: 200Hz–3.3kHz
Dynamic range: 60dB
THD <0.1%

Certifications

FCC part 15/ICES-003 Class A
FCC part 15 Subpart C/RSS-210
FCC part 68/IC CS-03
CE
UL Certified

Power (MAX)

Base unit:
Auto-adjusting power module;
100-240 VAC; 50/60 Hz

Power (MAX Wireless)

Phone unit:
Custom battery pack with nickel metal hydride batteries, 7.2 V 2200 mAh
12 hours continuous talk time (typical)
36 hours standby
Base unit:
Auto-adjusting power module;
100-240 VAC; 50/60Hz

Environmental

Operating temperature: 32–122° F (0–50° C)
Storage temperature: 41–158° F (5–70° C)
Operating humidity: 15 to 80%
Storage humidity: 10 to 90%

Dimensions (W x D x H)

Phone unit:
10.5" x 10.5" x 3" (26.7 cm x 26.7 cm x 7.6 cm)
Base unit:
4.25" x 5.5" x 2.5" (10.8 cm x 14 cm x 6.4 cm)

Weight

Phone unit: 2.7 lb (1.2 kg)
Base unit: .6 lb (0.27 kg)
Shipping:
MAX
10 lb (4.5 kg)
MAX Wireless
10 lb (4.5 kg)
MAXAttach Wireless
12 lb (5.5 kg)

MAX Wireless Includes

Wireless phone unit (1)
Base unit (1)
Battery pack (1)
Power supply/charger (1)
Power supply retainer (1)
Telephone cable
Documentation CD
Quick start guide

MAXAttach Wireless Includes

Wireless phone units (2)
Base unit (1)
Battery packs (2)
Power supply/chargers (2)
Power supply retainers (2)
Telephone cable
Documentation CD
Quick start guide

Part Numbers

RAV

910-153-100 RAV 600 No Speakers
910-153-101 RAV 600 Ceiling Speakers
910-153-102 RAV 600 Wall-Mount Speakers
910-153-300 RAV 900 No Speakers
910-153-301 RAV 900 Ceiling Speakers
910-153-302 RAV 900 Wall-Mount Speakers
910-153-025 RAV Wired Controller
910-153-050 RAV Remote Antennae
Accessory Kit

MAX EX

910-158-015 (North America)
910-158-016 (Europe)
910-158-017 (United Kingdom)
910-158-014 (Japan)

Includes:

MAX phone unit (1)
MAX base unit (1)
25' Cat. 5 cable (1)
Telephone cable
Documentation CD
Quick start guide

MAXAttach*

910-158-055 (North America)
910-158-057 (Europe)
910-158-058 (United Kingdom)
910-158-056 (Japan)
* For MaxAttach plus 1, add -01 to part number;
for MaxAttach plus 2, add -02 to part number.

Includes:

MAX phone units (2)
MAX base unit (1)
12' Cat. 5 cable (1)
25' Cat. 5 cable (1)
Telephone cable
Documentation CD
Quick start guide

MAX EX Expansion Kit

910-158-050 (All countries)

Includes:

MAX phone unit (1)
12' Cat. 5 cable (1)
Documentation CD
Quick start guide

MAX EX Expansion Base

910-158-048 (North America, Brazil, Taiwan)
910-158-049 (All other countries)

Includes:

MAX base unit (1)
25' Cat. 5 cable (1)
Telephone cable
Documentation CD
Quick start guide

MAX Wireless (WDCT)

910-158-001 (North America)

MAX Wireless (DECT)

910-158-003 (United Kingdom)
910-158-002 (International)

MAXAttach Wireless (WDCT)

910-158-070 (North America)



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Some features and applications mentioned may require a future release and are not available in the initial release. Future product releases and applications are subject to availability and cost. Specifications are subject to change without notice. Some features may require additional hardware and/or specific software. Copyright 2005. Inter-Tel, Incorporated. All products and services mentioned are the trademarks, service marks, registered marks or registered service marks of their respective owners.
Part # 935.2503 07/05

