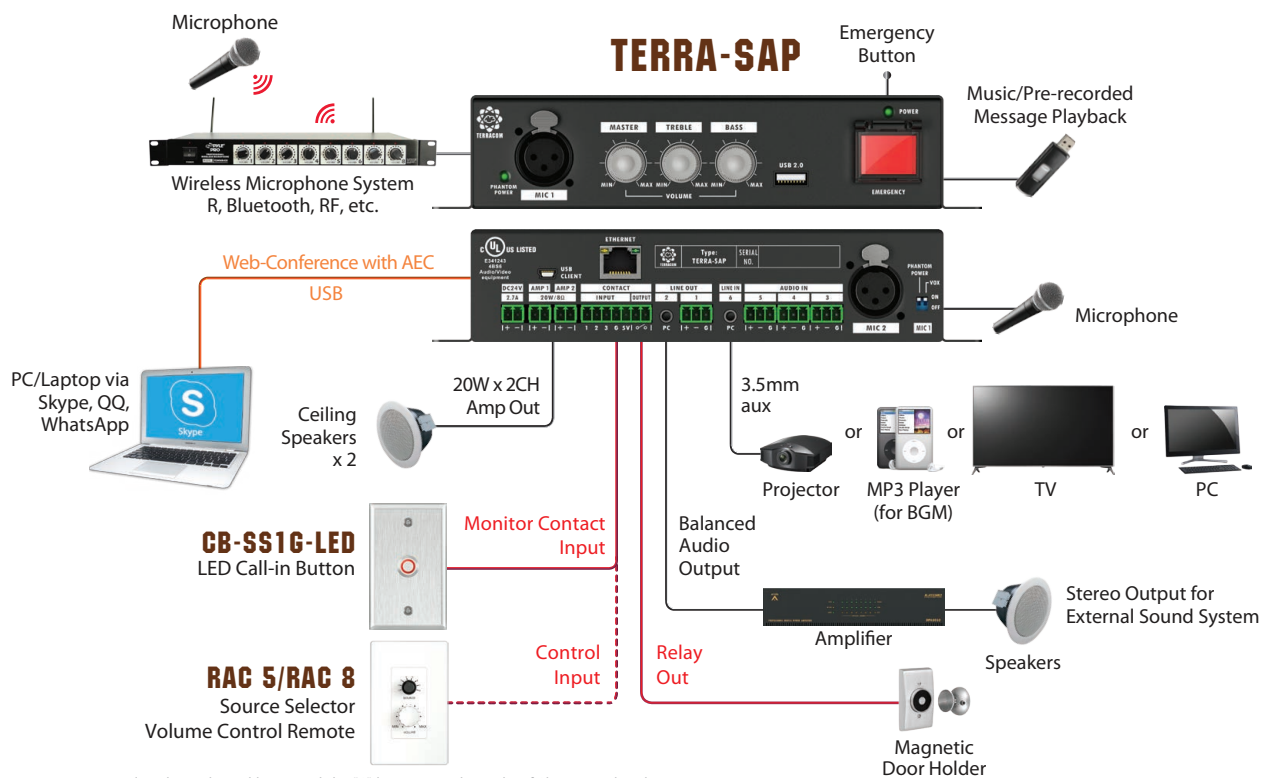# ⊛ TERRACOM™

TERRA-SAP

"WORLD'S MOST POWERFUL, COMPACT, FULL-FEATURED IP-BASED CLASSROOM SOUND REINFORCEMENT SYSTEM WITH INTEGRATION OF AUDIO CONFERENCING APPLICATIONS"

TERRACOM™ is Penton Audio's full-featured audio over IP and school IP intercom, paging, bell, messaging and audio streaming system – all over IP - without the need for expensive, complicated servers or specialized software. The TERRACOM IP intercom system is HTML browser-based programming and includes all the components you need to create a complete networked communications system over IP that will be an integral component to help your educational facility remain a safe and secure environment for students and faculty. TERRACOM audio over IP products features a full-range of SIP-ready IP Speakers/horns decoders, encoders, touchscreen paging microphones, call stations, optional custom GUI software - and our newest addition to the TERRACOM™ family – the Terra-SAP – a SIP-ready IP audio mixer for the classroom sound reinforcement. As with all TERRACOM™ IP Speakers/Horns, the Terra-SAP has full built-in DSP complete with AEC for mic inputs!
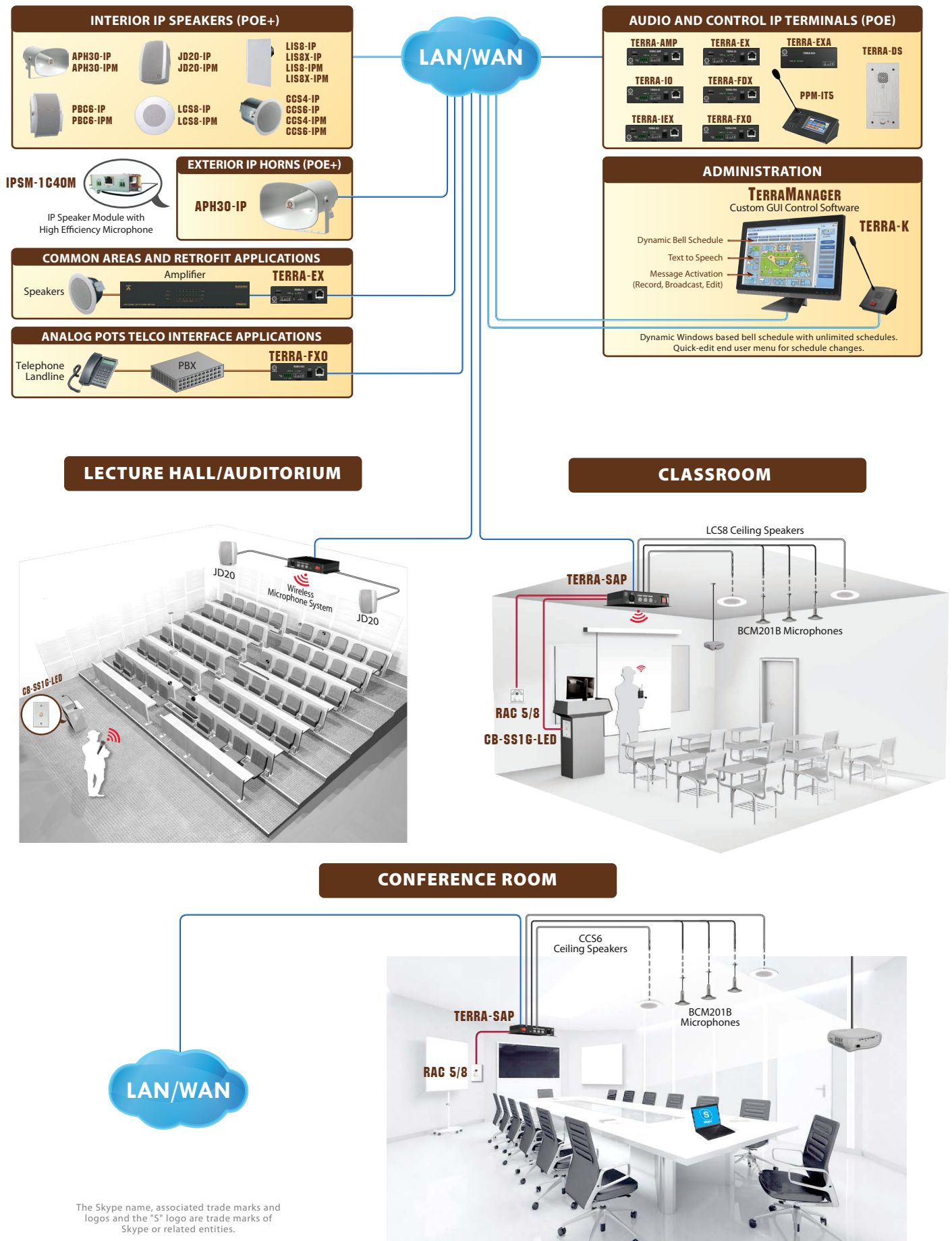
The Terra-SAP (School Audio Processor) is an integral classroom IP device with full DSP, used to integrate all your local audio sources within the classroom with the TERRACOM overall IP intercom system – without the need for additional sets of speakers for intercom! The Terra-SAP acts as the audio hub inside the classroom for locally connected audio devices such as wireless microphones (Bluetooth, IR, RF, etc.), PC audio, Display or Projector audio, etc.. The Terra-SAP can also utilize our specialized ceiling-mounted boundary microphones for in-classroom sound reinforcement complete with AEC and as the talkback microphone for hands-free intercom - all using the same speakers including automatic muting of the local program audio! The Terra-SAP includes 2 XLR Microphone inputs – 1 has switchable phantom power, 3 screw-terminal mic inputs for local sound and assignable intercom use, 1ea 3.5mm input jack for local program audio input. The Terra-SAP also has 1ea 3.5mm jack as well as screw-terminal balanced audio outputs. The Terra-SAP has 8-ohm, 20w stereo outputs for local classroom speakers. The Terra-SAP also includes USB2.0 port for music and/or message storage or it can used as a record output to USB storage device. There is a mini-USB input for connection to PC for use as WEB conferencing with built-in AEC. There are also 3ea Logic Control inputs for call-in buttons, analog control with our optional RAC5/8 analog controllers, and/or can be used as emergency message, call-in activation or output relay trigger. A built-in push-button with protective security cover on the front of the Terra-SAP can also be programmed for call-in, emergency call activation, internal message playback or relay trigger. There is also an on-board programmable FORM-A relay output that can be triggered via local logic input, logic input from any TERRACOM device in the intercom system, or manually from paging microphones and/or GUI software.

The Skype name, associated trade marks and logos and the "S" logo are trade marks of Skype or related entities.

- IP-Based with HTML browser-based programming - no special software or training required
- SIP Included - simply registers as SIP endpoint on most SIP servers, including Cisco Call Mngr., Avaya, Shore-Tel, etc.
- Full Audio DSP (FBX, Noise Reduction, PEQ, Comp/Limiter, Filters, Audio Matrix, AGC)
- 7 inputs (2 Microphone XLR, 3 Balanced MIC/Line, 1 3.5mm aux, 1 USB)
- 1 XLR with switchable Phantom Power and VOX operation

- Selectable MIC input for IP Intercom talk-back during SIP calls (local sound and IP intercommunications uses same speakers)
- Front panel knobs for MIC and Aux level control
- 2 speaker outputs (20W x 2 @ 8ohm)
- 2 Aux outputs (1 balanced audio via 3.5mm or Phoenix and record/conf. out via mini-USB w/ AEC)
- AEC (Acoustic Echo Cancelling) included for each MIC input
- Programmable input priority mixing
- Small and compact - mount under desk or on wall - no rack required

TERRA-SAP™

SYSTEM DIAGRAM

INTERIOR IP SPEAKERS (POE+)

APH30-IP
APH30-IPM

JD20-IP
JD20-IPM

LIS8-IP
LIS8X-IP
LIS8-IPM
LIS8X-IPM

PBC6-IP
PBC6-IPM

LCS8-IP
LCS8-IPM

CCS4-IP
CCS6-IP
CCS4-IPM
CCS6-IPM

LAN/WAN

AUDIO AND CONTROL IP TERMINALS (POE)

TERRA-AMP   TERRA-EX   TERRA-EXA   TERRA-DS

TERRA-IO   TERRA-FDX   PPM-IT5

TERRA-IEX   TERRA-FXO

IPSM-1C40M

IP Speaker Module with
High Efficiency Microphone

EXTERIOR IP HORNS (POE+)

APH30-IP

ADMINISTRATION

TerraManager
Custom GUI Control Software

Dynamic Bell Schedule
Text to Speech
Message Activation
(Record, Broadcast, Edit)

TERRA-K

Dynamic Windows based bell schedule with unlimited schedules.
Quick-edit end user menu for schedule changes.

COMMON AREAS AND RETROFIT APPLICATIONS

Speakers   Amplifier   **TERRA-EX**

ANALOG POTS TELCO INTERFACE APPLICATIONS

Telephone
Landline   PBX   **TERRA-FXO**

LECTURE HALL/AUDITORIUM

JD20

Wireless
Microphone System

JD20

CB-SS1G-LED

CLASSROOM

LCS8 Ceiling Speakers

TERRA-SAP

BCM201B Microphones

RAC 5/8

CB-SS1G-LED

CONFERENCE ROOM

CCS6
Ceiling Speakers

TERRA-SAP

BCM201B
Microphones

RAC 5/8

LAN/WAN

SYSTEM COMPONENTS

TERRA-SAP
Mini Audio DSP Processor

- 2 microphone inputs with master volume control and bass/tremble sound level adjustment
- 1 monitored emergency button to alert central monitoring station
- USB 2.0 interface for record out and music/pre-recorded message playback
- 20W x 2CH (Class-D amp) or bridged to 40W x 1CH amplification on 8 ohm load
- Sensitivity adjustment/phantom power/voice activated (VOX) for microphone input
- 1 stereo line input for background music
- 3 balanced mic inputs used for intercom between student and administration
- 3 monitored control inputs for hidden emergency button or program mable source selector and volume control (RAC5/8)
- Mini-USB interface to connect to PC/Laptop for web conferencing
- 1 relay control output and 1 Ethernet port
- 24VDC power input (2.7A)

BCM201W
Boundary Microphone(White)

BCM201B
Boundary Microphone(Black)

- Capsule type: Electret condenser
- Designed in high definition, omnidirectional microphone capsule
- Connected to the balanced mic input of TERRA-SAP, providing hands-free intercom, recording and speech monitoring applications

RAC 5/8
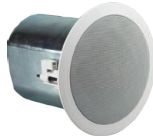**5/8 Steps Level and Source Selector**

CB-SS1G-LED
1G stainless call-in button with LED Ring

PPM-IT5
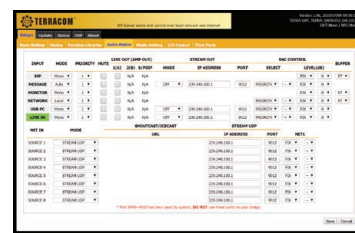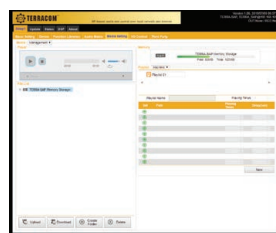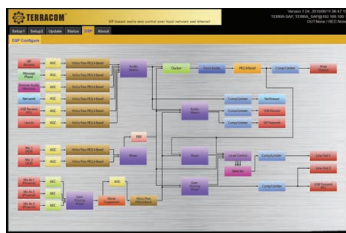**Programmable IP Paging & Intercom Console**
- 5" TFT LCD colour touch panel
- Full duplex intercom with AEC and NR, zone selection, paging and control
- Internal 80 MB storage for message recording and music playback
- Support G.711, G.722, G.726, G.727, G.729, MP3 audio codec and AAC+ decoder

ACTIVE IP LOUDSPEAKERS

APH30-IP
IP Horn Speaker (20W External 24VDC/PoE+)

APH30-IPM
IP Horn Speaker with Mic (20W External 24VDC/PoE+)

JD20-IP
Music Cabinet Loudspeaker (20W External 24VDC/PoE+)

JD20-IPM
Music Cabinet Loudspeaker with Mic (20W External 24VDC/PoE+)

PBC6-IP
Open-Back Wall-Mount IP Speaker (6W External 24VDC/PoE+)

PBC6-IPM
Open-Back Wall-Mount IP Speaker with Mic (6W External 24VDC/PoE+)

LCS8-IP
Twin-Cone IP Speaker (4W External 24VDC/PoE+)

LCS8-IPM
Twin-Cone IP Speaker with Mic (4W External 24VDC/PoE+)

LIS8-IP
LIS8X-IP
LIS8-IPM
LIS8X-IPM

Lay-in Tile IP Speaker (5W External 24VDC/PoE+)
Lay-in Tile 2 Way IP Speaker (15W External 24VDC/PoE+)
Lay-in Tile IP Speaker with Mic (5W External 24VDC/PoE+)
Lay-in Tile 2 Way IP Speaker with Mic (15W External 24VDC/PoE+)

CCS4-IP
CCS6-IP
CCS4-IPM
CCS6-IPM

4" Pro-Ceiling IP Speaker 2 Way (20W External 24VDC/PoE+)
6" Pro-Ceiling IP Speaker 2 Way (30W External 24VDC/PoE+)
4" Pro-Ceiling IP Speaker 2 Way with Mic (20W External 24VDC/PoE+)
6" Pro-Ceiling IP Speaker with Mic (30W External 24VDC/PoE+)

FEATURES

- Control, monitor, programming and management via HTML web browser

- Full-featured solution including paging, audio streaming, messaging, bell scheduling, AEC hands-free intercom, voice evacuation, etc.

- Full DSP for advanced audio adjustments such as input muting priority management, EQ, Filters, Noise Suppression, AEC, Comp/Limiter, Feedback control, AGC and I/O level adjustments – all via HTML web browser programming

- 20W x 2CH or bridged to 40W x 1CH Class-D amplification plus one line level audio out on Terra-SAP

- Stored pre-recorded messages with scheduling

- USB audio in and record out

- Full DSP with built-in paging and intercom compatibility

- Logic input x 3 and relay output x 1

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