SWE-8

Sonnex® Multiroom Audio Unamplified Expander, 8-Zone

- *8-Zone Sonnex® expansion with line-level outputs*
- *4 zones with balanced and unbalanced line outputs*
- *4 zones with S/PDIF digital outputs*
- *All zones include CH CAT5 balanced outputs*
- *Advanced DSP, mono summing, and output bussing per zone*
- *Single-cable interface to SWAMP-24X8 via Sonnex Link*
- *Single-space rack mountable*

The SWE-8 is an 8-zone unamplified expander for the Sonnex® Multiroom Audio System (SWAMP-24X8, sold separately). It provides 8 zone outputs consisting of 4 analog line-level and 4 S/PDIF digital outputs. All of the outputs include CH CAT5 balanced audio outputs for long-distance wiring applications. The SWE-8 is ideal for routing audio to AV receivers, powered subwoofers, headphone amplifiers, phone systems (for music-on-hold), and other audio equipment.

8 Zones Unamplified

The SWE-8 routes any of the SWAMP-24X8's 24 source inputs to any of its eight zone outputs. Outputs 1 through 4 provide balanced, unbalanced, and CH CAT5 outputs. Outputs 5 through 8 provide S/PDIF and CH CAT5 outputs.

AUD-EXT Audio over CAT5 Extenders

For long-distance wiring applications requiring wire runs over 500 feet, Crestron® offers the AUD-EXT family of audio extenders (sold separately). Using inexpensive CAT5 wire, these extenders allow unbalanced audio signals from the SWE-8 to be extended up to 2000 ft (610 m), while S/PDIF signals from the SWE-8 can be extended up to 600 ft (183 m).

Digital Signal Processing

Each zone features independent digital signal processing (DSP) for optimal sound quality and control in every room. DSP capabilities include the choice of graphic or parametric 5-band EQ, dynamic range control, volume, bass, treble, balance, loudness, mute, mono summing, and five selectable tone profiles. For subwoofer applications, a choice of second- or fourth-order active crossover filters can be set using the parametric EQ, leaving the four remaining EQ filters available for room correction and tonal enhancement.

Output Bussing

Output bussing allows multiple zones to function as one, whether fed from the SWE-8, the SWAMP-24X8, or another Sonnex Expander. Output bussing is ideal for grouping adjacent listening areas together or associating a powered subwoofer with its stereo speaker pair. Volume Offset adjustments allow the levels of each bussed zone to be balanced for smooth, even coverage.

Simple, Versatile Installation

The SWE-8 can be installed along with the SWAMP-24X8 at the central equipment rack, or separately at a remote location. It interfaces with the SWAMP-24X8 via a single CAT5e shielded twisted-pair (STP) cable up to 200 ft (61 m) in length.[1] This length can be increased to 2000 ft (610 m) using multimode fiber optic cable and the S-EXT1-S Sonnex Link over Fiber Extender (sold separately). Plug-and-play connectivity affords an extremely easy installation with full control access to all the SWE-8 functions provided through the SWAMP-24X8.

Refer to the SWAMP-24X8 product page for complete Sonnex system information.

Specifications

Audio

Input Signal Types	Sonnex® Link
Output Signal Types	Stereo analog line (unbalanced and balanced), S/PDIF coaxial (2-channel PCM only), CH CAT5 Balanced Audio
Typical of 8 Stereo Zone Outputs:	
Digital-To-Analog Conversion	24-bit 48 kHz
Output Resolution/Bitrate	24-bit 48 kHz (digital outputs only)
Frequency Response	20 Hz to 20 kHz ±0.5 dB
THD+N	< 0.003% S/PDIF in; < 0.005% balanced or unbalanced analog in; 20 Hz to 20 kHz
S/N Ratio	> 106 dB S/PDIF in; > 100 dB balanced or unbalanced analog in, A-weighted
Stereo Separation	> 100 dB
Zone Separation	> 100 dB
Zone Volume Level Control	-80.0 to +20.0 dB, adjustable from 0% to 100% plus mute
Bass Control	±12.0 dB
Treble Control	±12.0 dB
Loudness Compensation	On/Off
Dynamic Range Control	On/Off
Balance Control	Left/Right adjustable
Mono Summing	Selectable
Tone Profiles	Flat, Classical, Jazz, Pop, Rock, Spoken Word

CRESTRON®

EQ Modes	5-band graphic or 5-band parametric EQ
GEQ Center Frequencies	63, 250, 1k, 4k, 16k Hz
GEQ Gain	±12.0 dB per band
PEQ Filter Types	EQ, High Pass, Low Pass, Treble Shelf, Bass Shelf, Notch
PEQ Center Frequency	10 to 20,000 Hz per band
PEQ Gain	±12.0 dB per band
PEQ Bandwidth	0.1 to 3.5 octaves per band
Bus Volume Offset	±12.0 dB per zone for output bussing

Communications

Sonnex Link	64-channel (48 utilized) digital audio with embedded control, auto-discovery, auto-negotiating

Connectors

DIGITAL IN	(1) 8-wire RJ-45 female, Sonnex link input; Connects to SWAMP-24X8 Multiroom Audio System (sold separately)[1]
1 – 4 L/R (unbalanced)	(4) pairs RCA female; Unbalanced stereo line-level audio outputs[2]; Output Impedance: 100 Ohms; Maximum Output Level: 2 Vrms
1 – 4 BALANCED L/R	(4) 5-pin 3.5 mm detachable terminal blocks; Balanced stereo line-level audio outputs[2]; Output Impedance: 200 Ohms balanced, 100 Ohms unbalanced; Maximum Output Level: 4 Vrms balanced, 2 Vrms unbalanced
1 – 8 BALANCED (CH)	(8) 8-wire RJ-45 female, shielded; CH CAT5 balanced stereo audio output ports[2]; Connect to any CH CAT5 audio input ports or bidirectional audio ports; Maximum Cable Length: 500 ft (152 m) per port
5 – 8 SPDIF OUT	(4) RCA female; S/PDIF coaxial digital audio outputs; Output Impedance: 75 Ohms
24 VDC 2 A MAX	(1) 2.1 mm barrel DC power jack; 24 VDC power input; PW-2420RU power pack included
G	6-32 screw, chassis ground lug

Controls & Indicators

PWR	(1) green LED; Indicates operating power supplied via power pack
HW-R	(1) recessed push button for hardware reset

ZONE 1 – 8	(8) push buttons and green LEDs; Selects output zone for routing and adjustment
DIGITAL IN (rear)	(1) green and (1) amber LED; Green indicates link status and amber indicates data communication

Power Requirements

Power Pack	2 A @ 24 VDC; 100-240 VAC, 50/60 Hz power pack, model PW-2420RU included

Environmental

Temperature	41° to 104° F (5° to 40° C)
Humidity	10% to 90% RH (non-condensing)
Heat Dissipation	41 BTU/hr

Construction

Chassis	Metal with black finish, vented sides
Front Panel	Metal with black finish and polycarbonate label overlay
Mounting	Freestanding or 1U 19-inch rack-mountable (feet and rack ears included)

Dimensions

Height	1.72 in. (44 mm) without feet
Width	19.00 in. (483 mm), 17.30 in. (439 mm) without rack ears
Depth	10.19 in. (259 mm)

Weight

5.00 lb (2.3 kg)

Compliance

Regulatory Model: SWE-8
UL® Listed (PW-2420RU), CE, IC, FCC Part 15 Class B digital device

Model

SWE-8
Sonnex® Multiroom Audio Unamplified Expander, 8-Zone

Included Accessories

PW-2420RU
Desktop Power Pack, 24 VDC, 2.5 A, 2.1 mm

Available Accessories

AUD-EXT-100
Audio over CAT5 Extender for One Unbalanced Stereo Signal

AUD-EXT-200
Audio over CAT5 Extender for Two Unbalanced Stereo Signals

AUD-EXT-201
Audio over CAT5 Extender for One Unbalanced Stereo Signal & Two S/PDIF Signals

AUD-EXT-202
Audio over CAT5 Extender for Two S/PDIF Signals

CBL-AUDIO-RCAF-0.5
RCA to 3.5 mm Mini-TRS Stereo Audio Adapter

CBL-KAUDIO-RCAM2-L-P-50
RCA Stereo Audio Cable Kit, Plenum, 50 ft

CBL-RCA-1.5
Crestron® Certified RCA Composite Video and S/PDIF Audio Interface Cable, 1.5 ft

CBL-RCA-12
Crestron® Certified RCA Composite Video and S/PDIF Audio Interface Cable, 12 ft

CBL-RCA-3
Crestron® Certified RCA Composite Video and S/PDIF Audio Interface Cable, 3 ft

CBL-RCA-6
Crestron® Certified RCA Composite Video and S/PDIF Audio Interface Cable, 6 ft

CBL-RCA2-1.5
Crestron® Certified RCA Stereo Audio Interface Cable, 1.5 ft

CBL-RCA2-12
Crestron® Certified RCA Stereo Audio Interface Cable, 12 ft

CBL-RCA2-3
Crestron® Certified RCA Stereo Audio Interface Cable, 3 ft

CBL-RCA2-6
Crestron® Certified RCA Stereo Audio Interface Cable, 6 ft

DM-8G-CONN-WG-100
Connectors with Wire Guide for DM-CBL-8G DigitalMedia 8G™ Cable, 100-Pack

DM-8G-CRIMP-WG
Crimping Tool for DM-8G-CONN-WG

DM-CBL-8G-NP-SP1000
DigitalMedia 8G™ Cable, non-plenum, 1000 ft spool

DM-CBL-8G-NP-SP500
DigitalMedia 8G™ Cable, non-plenum, 500 ft spool

DM-CBL-8G-P-SP1000
DigitalMedia 8G™ Cable, plenum, 1000 ft spool

DM-CBL-8G-P-SP500
DigitalMedia 8G™ Cable, plenum, 500 ft spool

S-EXT1-S
Sonnex® Link over Fiber Extender

SWAMP-24X8
Sonnex® Multiroom Audio System

SWAMPI-24X8
Sonnex® Multiroom Audio System - International Version, 220-240V

Notes:

1. For connection of the Sonnex Link between the SWE-8 and SWAMP-24X8, use Crestron DM-CBL-8G or high-quality CAT5e shielded twisted-pair cable. The maximum cable length using DM-CBL-8G or CAT5e is 200 ft (61 m). For longer distances, use the S-EXT1-S Sonnex Link over Fiber Extender.

2. All analog outputs are paralleled per zone.

10.19 in.
(259 mm)

17.30 in.
(439 mm)

1.72 in.
(44 mm)

19.00 in.
(483 mm)