

# Specifications — HSA 200 Series, HSA 222 Series

## Video— HSA 200SE, HSA 200CE

Gain.....	0 dB, 0.6 dB, 1.2 dB, selectable (when input is 0.7 V <sub>p-p</sub> , output is 0.7 V, 0.75 V, 0.8 V <sub>p-p</sub> )
Bandwidth.....	300 MHz (-3 dB)

**NOTE** ID bits are terminated on pins 4 and 11.

## Video input— HSA 200S, HSA 200C

Number/signal type.....	1 VGA–QXGA RGBHV, RGBS, RGsB, RsGsBs, HDTV component video
Connectors .....	(1) 15-pin HD female

## Video input— HSA 200SE, HSA 200

Number/signal type.....	1 VGA–QXGA RGBHV, RGBS, RGsB, RsGsBs, HDTV component video
Connectors .....	(1) 15-pin HD female
Nominal level .....	1.0 V <sub>p-p</sub> for Y of component video 0.7 V <sub>p-p</sub> for RGB and for R-Y and B-Y of component video
Minimum/maximum levels.....	Analog: 0.3 V to 1.5 V <sub>p-p</sub> with no offset at unity gain
Impedance.....	75 ohms
Horizontal frequency.....	15 kHz to 135 kHz
Vertical frequency.....	30 Hz to 170 Hz
Input coupling.....	DC

## Video output— HSA 200S, HSA 200C

Number/signal type.....	1 pass-through VGA–QXGA RGBHV, RGBS, RGsB, RsGsBs, HDTV component video
Connectors .....	5 BNC female on pigtails

## Video outputHSA 200SE, HSA 200CE

Number/signal type.....	1 VGA–QXGA RGBHV, RGBS, RGsB, RsGsBs, HDTV component video
Connectors .....	5 BNC female on pigtails
Nominal level .....	1.0 V <sub>p-p</sub> for Y of component video 0.7 V <sub>p-p</sub> for RGB and for R-Y and B-Y of component video
Minimum/maximum levels.....	Analog: 0.3 V to 1.5 V <sub>p-p</sub>
Impedance.....	75 ohms
DC offset.....	±5 mV with input at 0 offset
Return loss.....	<-35 dB @ 5 MHz

**NOTE** Output resolution may vary depending on whether or not the Extender is attached to the computer at startup, and also on the type of computer being used.

## Sync— HSA 200SE, HSA 200CE

Input type.....	RGBHV, RGBS, RGsB, RsGsBs, bi-level and tri-level component video sync
Output type.....	RGBHV, RGBS, RGsB, RsGsBs, bi-level and tri-level component video sync
Input level .....	2.0 V to 5.0 V <sub>p-p</sub>
Output level.....	TTL: 5.0 V <sub>p-p</sub> , unterminated
Input impedance .....	510 ohms
Output impedance .....	75 ohms
Max. propagation delay .....	18.8 ns
Max. rise/fall time .....	4 ns
Polarity.....	Positive or negative (follows input)

# Specifications — HSA 200 Series, HSA 222 Series, cont'd

## Audio— HSA 200SE, HSA 200CE

Gain .....	Unbalanced output: 0 dB; balanced output: +6 dB
Frequency response .....	20 Hz to 20 kHz, ±0.5 dB
THD + Noise .....	0.025% @ 1 kHz, 0.020% @ 20 kHz at nominal level
S/N .....	>90 dB at rated maximum output (21 dB, balanced)
Stereo channel separation .....	>75 dB @ 20 Hz to 20 kHz

## Audio input— HSA 200S, HSA 200C

Number/signal type .....	1 stereo, unbalanced
Connectors .....	(1) 3.5 mm stereo female jack

## Audio input— HSA 200SE, HSA 200CE

Number/signal type .....	1 stereo, unbalanced
Connectors .....	(1) 3.5 mm stereo female jack
Impedance .....	>10k ohms unbalanced, DC coupled
Nominal level .....	-10 dBV (316 mVrms)
Maximum level .....	+6 dBu, (balanced or unbalanced) at 1% THD+N

**NOTE** 0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV ≈ 2 dBu

## Audio output— HSA 200S, HSA 200C

Number/signal type .....	1 pass-through stereo, unbalanced
Connectors .....	(1) 3.5 mm, direct insertion captive screw connector, 3 pole

## Audio output— HSA 200SE, HSA 200CE

Number/signal type .....	1 stereo, balanced/unbalanced
Connectors .....	(1) 3.5 mm direct insertion captive screw connector, 5 pole
Impedance .....	50 ohms unbalanced, 100 ohms balanced
Nominal level .....	Unbalanced output: -10 dBV (316 mVrms) Balanced output: -2 dBu (632 mVrms)
Maximum level (Hi-Z) .....	>+14 dBu, balanced at 1% THD+N
Maximum level (600 ohm) .....	>+6 dBm, balanced at 1% THD+N

## General

**NOTE** *The Universal AC outlet is fully compatible with Europlug, British, Indian, Danish, and Italian plug types. See the Universal AC outlet guide on the Extron Web site, [www.extron.com](http://www.extron.com), for compatibility details on all plug types.*

Power	
HSA 200SE/CE .....	Supplied by an external power supply
External power supply	
HSA 200SE/CE .....	100 VAC to 240 VAC, 50/60 Hz, external, to 12 VDC, 0.42 A, regulated
Power input requirements	
HSA 200SE/CE .....	12 VDC, 0.2 A
Temperature/humidity	
HSA 200SE/CE .....	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32° to +86 °F (0 to +30 °C) / 10% to 90%, noncondensing
Mounting	
Furniture mount .....	Yes
Enclosure type .....	Metal

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Enclosure dimensions

**CAUTION** Use the appropriate metal Extron routing template or refer to the surface cutout dimensions here before cutting a hole in the furniture or other surface. Pay special attention to the direction the unit will face; the unit's connector access side is underlined. Extron is not responsible for miscut mounting holes.

**HSA 200S, HSA 200SE — USA models**

Top plate (outer rim). 6.470" W x 5.125" D  
(16.43 cm W x 13.02 cm D)

Surface cutout (inside rim)  
5.970 ±0.0325" W x 4.625 ±0.0325" D  
(15.16 ±0.083 cm W x 11.75 ±0.083 cm D)

Top plate (inside tilt plate)  
4.344" W x 3.000" D  
(11.03 cm W x 7.62 cm D)

**HSA 222S — USA model**

Top plate (outer rim). 6.470" W x 5.125" D  
(16.43 cm W x 13.02 cm D)

Surface cutout (inside rim)  
5.970 ±0.0325" W x 4.625 ±0.0325" D  
(15.16 ±0.083 cm W x 11.75 ±0.083 cm D)

Top plate (inside tilt plate)  
4.660" W x 2.875" D  
(11.84 cm W x 7.30 cm D)

**HSA 200C, HSA 200CE — USA models**

Top plate (outer rim). 6.500" diameter (16.51 cm diameter) circle

Surface cutout (inside rim)  
6.000 ±0.0325" diameter (15.24 ±0.083 cm diameter) circle

Top plate (inside tilt plate)  
4.344" W x 3.000" D  
(11.03 cm W x 7.62 cm D)

**HSA 200S, HSA 200SE, HSA 200C, HSA 200CE — USA models**

Box (under surface)... 4.0" H x 4.6" W (front of unit) x 4.4" D (10.2 cm H x 11.7 cm W x 11.2 cm D)  
without clamps  
4.0" H x 8.0" W (front of unit) x 4.4" D (10.2 cm H x 20.3 cm W x 11.2 cm D)  
with clamps

**HSA 222S — USA model**

Box (under surface)... 5.6" H x 5.3" W (front of unit) x 3.6" D (14.2 cm H x 13.5 cm W x 9.1 cm D)  
without clamps  
5.6" H x 8.6" W (front of unit) x 3.6" D (14.2 cm H x 21.8 cm W x 9.1 cm D)  
with clamps

**HSA 200S/HSA 200SE — international square models**

Top plate (outer rim). 8.183" W x 6.375" D (20.79 cm W x 16.19 cm D)

Surface cutout (inside rim)  
7.683 ±0.0325" W x 5.875 ±0.0325" D (19.51 ±0.083 cm W x 14.92 ±0.083 cm D)

Top plate (inside tilt plate)  
5.90" W x 4.10" D (14.99 cm W x 10.41 cm D)

# Specifications — HSA 200 Series, HSA 222 Series, cont'd

## HSA 222S — international square models

Top plate (outer rim). 8.183" W x 6.375" D (20.78 cm W x 16.19 cm D)

Surface cutout (inside rim)

7.683 ±0.0325" W x 5.875 ±0.0325" D  
(19.51 ±0.083 cm W x 14.92 ±0.083 cm D)

Top plate (inside tilt plate)

6.183" W x 3.75" D (15.70 cm W x 9.53 cm D)

## HSA 200C/HSA 200CE — international circular models

Top plate (outer rim). 8.5" diameter (21.6 cm diameter) circle

Surface cutout (inside rim)

8.0 ±0.0325" diameter (20.3 ±0.083 cm diameter) circle

Top plate (inside tilt plate)

5.9" W x 4.1" D  
(15.1 cm W x 10.4 cm D)

## HSA 200 — international, all models

Box (under surface)... 4.0" H x 6.3" W (front of unit) x 5.0" D (10.2 cm H x 15.9 cm W x 12.7 cm D)  
without clamps

4.0" H x 10.0" W (front of unit) x 5.0" D (10.2 cm H x 25.3 cm W x 12.7 cm D)  
with clamps

## HSA 222 — international, all models

Box (under surface)... 4.5" H x 6.6" W (front of unit) x 4.9" D (11.4 cm H x 16.8 cm W x 12.4 cm D)  
without clamps

4.5" H x 10.3" W (front of unit) x 4.9" D (11.4 cm H x 26.2 cm W x 12.4 cm D)  
with clamps

## Product weight

HSA 200S, HSA 200C..... 4.0 lbs (1.8 kg)

HSA 222S..... 3.5 lbs (1.6 kg)

HSA 200SE, HSA 200CE... 5.0 lbs (2.3 kg)

## Shipping weight

HSA 200S, HSA 200C, HSA 222S .....7 lbs (4 kg)

HSA 200SE, HSA 200CE... 8 lbs (4 kg)

Vibration..... ISTA 1A in carton (International Safe Transit Association)

## Regulatory compliance

Safety..... CE, CUL, CSA C/US, UL

EMI/EMC

HSA 200SE, HSA 200CE

CE, C-tick, FCC Class A, ICES, VCCI

MTBF..... 30,000 hours

Warranty..... 3 years parts and labor

**NOTE** All nominal levels are at ±10%.

**NOTE** Specifications are subject to change without notice.

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