

Specifications

XPA 1002 Series

Audio (XPA 1002, XPA 1002 Plus)

Voltage gain	
XPA 1002	16x (24 dB)
XPA 1002 Plus.....	23x (27dB)
Stereo channel separation.....	>75 dB @ 1 kHz
CMRR.....	75 dB @ 1 kHz (typical)

Audio input (XPA 1002, XPA 1002 Plus)

Number/signal type.....	1 stereo or 2 mono, balanced/unbalanced
Connectors	(1) 3.5 mm captive screw connector, 5 pole
Impedance.....	>10k ohms unbalanced/balanced, DC coupled
Nominal level.....	+4 dBu (1.23 Vrms), balanced
Maximum level	+20 dBu (7.75 Vrms), balanced
Input sensitivity	
XPA 1002	+4 dBu (1.23 Vrms)
XPA 1002 Plus	
8 ohm or higher speaker	
load	+4 dBu (1.23 Vrms)
4 ohm speaker load.....	+1 dBu (0.87 Vrms)
Input signal detection threshold.....	-40 dBu \pm 3 dB, balanced

NOTE: 0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV \approx 2 dBu

Audio output (XPA 1002, XPA 1002 Plus)

Number/signal type.....	1 stereo, 4 or 8 ohm direct
Connectors	(1) 5 mm screw lock captive screw connector, 4 pole

NOTE: These connectors accept wires of 22 AWG to 12 AWG.

Load impedance.....	4 ohms minimum
Amplifier type	Class D
Output power	
XPA 1002	60 watts rms per channel, 8 ohms, 1 kHz, <0.05% THD
XPA 1002 Plus.....	100 watts rms per channel, 4 ohms, 1 kHz, <0.05% THD
XPA 1002 Plus.....	100 watts rms per channel, 8 ohms, 1 kHz, <0.05% THD
XPA 1002 Plus.....	100 watts rms per channel, 4 ohms, 1 kHz, <0.05% THD
Frequency response	20 Hz to 20 kHz, \pm 1 dB
THD + Noise	0.05% @ 20 Hz - 20 kHz, 8 ohms, at 3 dB below clipping
S/N.....	105 dB, 20 Hz - 20 kHz, unweighted
Damping factor	>100 @ 8 ohms

Control/remote – amplifier (XPA 1002, XPA 1002 Plus)

Control port (1) 3.5 mm captive screw connector, 5 pole

Pin configurations

DC volume control (analog)..... Pin 1 = +10 VDC, 50 mA (max.), pin 2 = volume/mute (variable voltage), pin 3 = GND

Volume control voltage range... 0 V (mute) to 10 V (maximum volume)

Standby power control

(contact closure)..... Pin 4 = GND, pin 5 = standby

General (XPA 1002, XPA 1002 Plus)

Power supply Internal

Input: 100-240 VAC, 50-60 Hz, 0.5 A

Power consumption and thermal dissipation

XPA 1002

		115 VAC, 60Hz				230 VAC, 50Hz			
		AC Line Current	AC Power Consumed	Thermal Dissipation		AC Line Current	AC Power Consumed	Thermal Dissipation	
Condition		A	W	W	BTU/hr	A	W	W	BTU/hr
Active (1/8 power), all channels driven	8Ω	0.3	29.9	14.9	51	0.2	29.9	14.9	51
	4Ω	0.4	41.1	16.1	55	0.2	41.1	16.1	55
Quiescent (idle)		0.1	10.1	10.1	34	0.1	9.8	9.8	33
Standby		<0.1	<1	<1	<3	<0.1	<1	<1	<3

XPA 1002 Plus.....

		115 VAC, 60Hz				230 VAC, 50Hz			
		AC Line Current	AC Power Consumed	Thermal Dissipation		AC Line Current	AC Power Consumed	Thermal Dissipation	
Condition		A	W	W	BTU/hr	A	W	W	BTU/hr
Active (1/8 power), all channels driven	8Ω	0.4	45.1	20.1	69	0.5	44.4	19.4	66
	4Ω	0.4	47.4	22.4	76	0.5	45.2	20.2	69
Quiescent (idle)		0.1	12.3	12.3	42	0.2	12.4	12.4	42
Standby		<0.1	<1	<1	<3	<0.1	<1	<1	<3

Temperature/humidity Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing
Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing

Cooling Convection, no vents, with internal heat sinks

Protection Clip limiting, thermal, short circuit, DC output

Indication Limiter/Protect LED indicates the onset of clip limiting, thermal cycling, short circuit

Mounting

Rack mount..... Yes, with optional 1U rack shelf

Enclosure type Metal

Enclosure dimensions 1.7" H x 8.7" W x 9.5" D (1U high, half rack wide)
(4.3 cm H x 22.1 cm W x 24.1 cm D)

Product weight 2.5 lbs (1.1 kg)

Shipping weight 5 lbs (3 kg)

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

Regulatory compliance

Safety..... BSMI, CCC, CE, c-UL, GS, KC Mark, PSE, S Mark, UL
UL rated for use in plenum airspaces: meets UL 2043 for heat and smoke release;
meets UL 60065, IEC 60065, and BSEN 60065 for AV equipment.

EMI/EMC..... CE, CISPR 22 Class B, C-tick, FCC Class B, ICES, KCC, VCCI Class B

Environmental.....	Complies with the appropriate requirements of ENERGY STAR® (ENERGY STAR qualified amplifier), EU code of conduct, RoHS, WEEE
Warranty	3 years parts and labor

NOTE: All nominal levels are at ±10%.

NOTE: Specifications are subject to change without notice.

Audio (XPA 1002-70V, XPA 1002-100V)

Voltage gain	
XPA 1002-70V.....	57x (35 dB)
XPA 1002-100V.....	81x (38 dB)
CMRR.....	75 dB @ 1kHz (typical)

Audio input (XPA 1002-70V, XPA 1002-100V)

Number/signal type.....	2 balanced/unbalanced
Connectors	(1) 3.5 mm captive screw connector, 5 pole
Impedance.....	>10k ohms unbalanced/balanced, DC coupled
Nominal level.....	+4 dBu (1.23 Vrms), balanced
Maximum level	+20 dBu (7.75 Vrms), balanced
Input sensitivity	+4 dBu (1.23 Vrms)
Input signal detection threshold.....	-40 dBu ±3 dB, balanced

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

Audio output (XPA 1002-70V, XPA 1002-100V)

Number/signal type	
XPA 1002-70V.....	2 mono, 70 V line
XPA 1002-100V.....	2 mono, 100 V line
Connectors	(1) 5 mm screw lock captive screw connector, 4 pole

NOTE: These connectors accept wires of 22 AWG to 12 AWG.

Load impedance	
XPA 1002-70V.....	50 ohms minimum
XPA 1002-100V.....	100 ohms minimum
Amplifier type	Class D
Output power	
XPA 1002-70V.....	100 watts rms per channel, 70 V, 1 kHz, <0.1% THD
XPA 1002-100V.....	100 watts rms per channel, 100 V, 1 kHz, <0.1% THD
Frequency response	20 Hz to 20 kHz, ±1 dB
THD + Noise	<0.1% @ 1 kHz at 3 dB below clipping
S/N.....	100 dB, 20 Hz - 20 kHz, unweighted
Damping factor	
XPA 1002-70V.....	>100 @ 50 ohms
XPA 1002-100V.....	>100 @ 100 ohms
High pass filter	80 Hz, 12 dB per octave rolloff (switch selectable)

Communications – amplifier (XPA 1002-70V, XPA 1002-100V)

Control port	(1) 3.5 mm captive screw connector, 2 pole
Pin configuration	
Standby power control (contact closure).....	Pin 1 = GND, Pin 2 = standby

General (XPA 1002-70V, XPA 1002-100V)

Power supply Internal
 Input: 100-240 VAC, 50-60 Hz

Power consumption and thermal dissipation
 XPA 1002-70V.....

		115 VAC, 60Hz				230 VAC, 50Hz			
		AC Line Current	AC Power Consumed	Thermal Dissipation		AC Line Current	AC Power Consumed	Thermal Dissipation	
Condition		A	W	W	BTU/hr	A	W	W	BTU/hr
Active (1/8 power), all channels driven	70 V	0.4	43.3	18.3	62	0.2	43.2	18.2	62
	Quiescent (idle)	0.1	10.2	10.2	35	0.1	9.9	9.9	34
Standby		<0.1	<1	<1	<3	<0.1	<1	<1	<3

XPA 1002-100V.....

		115 VAC, 60Hz				230 VAC, 50Hz			
		AC Line Current	AC Power Consumed	Thermal Dissipation		AC Line Current	AC Power Consumed	Thermal Dissipation	
Condition		A	W	W	BTU/hr	A	W	W	BTU/hr
Active (1/8 power), all channels driven	100 V	0.4	42.1	17.1	58	0.3	42.7	17.7	60
	Quiescent (idle)	0.1	9.7	9.7	33	0.1	9.0	9.0	31
Standby		<0.1	<1	<1	<3	<0.1	<1	<1	<3

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Enclosure type Metal (Aluminum)

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Warranty 3 years parts and labor

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NOTE: Shipping weights and dimensions are available at www.extron.com.

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