

Specifications

XPA 2002, XPA 2003, XPA 2004 Series

Audio

Voltage gain	
XPA 2002, XPA 2004	23x (27 dB)
XPA 2003C-70V/100V (ch. 1 and 2)	23x (27 dB)
XPA 2002-70V, XPA 2003C-70V (ch. 3 only)	57x (35 dB)
XPA 2002-100V, XPA 2003C-100V (ch. 3 only)	81x (38 dB)
Crosstalk	75 dB (typical) @ 1 kHz
CMRR	75 dB (typical) @ 1 kHz

Audio input

Number/signal type	
XPA 2002, XPA 2002-70V, XPA 2002-100V	2 balanced/unbalanced
XPA 2003C-70V, XPA 2003C-100V	3 balanced/unbalanced
XPA 2004	4 balanced/unbalanced
Connectors	
XPA 2002, XPA 2002-70V, XPA 2002-100V	(2) 3.5 mm captive screw connectors, 3 pole
XPA 2003C-70V, XPA 2003C-100V	(3) 3.5 mm captive screw connectors, 3 pole
XPA 2004	(4) 3.5 mm captive screw connectors, 3 pole
Impedance	>10k ohms unbalanced/balanced, DC coupled
Nominal level	+4 dBu (1.23 Vrms), balanced
Maximum level	+21 dBu (8.69 Vrms), balanced
Input sensitivity	+4 dBu (1.23 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

Number/signal type	
XPA 2002	2 channels, 4 or 8 ohms; or 1 bridged mono, 8 ohms
XPA 2002-70V	2 channels, 70 V
XPA 2002-100V	2 channels, 100 V
XPA 2003C-70V	2 channels, 4 or 8 ohms 1 channel, 70 V
XPA 2003C-100V	2 channels, 4 or 8 ohms 1 channel, 100 V
XPA 2004	4 channels, 4 or 8 ohms; or 2 bridged mono, 8 ohms

Connectors

XPA 2002	(1) 5 mm screw lock captive screw connector, 4 pole
XPA 2002-70V, XPA 2002-100V	
	(2) 5 mm screw lock captive screw connectors, 2 pole
XPA 2003C-70V, XPA 2003C-100V	
	(1) 5 mm screw lock captive screw connector, 4 pole
	(1) 5 mm screw lock captive screw connector, 2 pole
XPA 2004	(2) 5 mm screw lock captive screw connectors, 4 pole

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

Load impedance

XPA 2002-70V	25 ohms minimum
XPA 2002-100V	50 ohms minimum
XPA 2003C-70V	
Channel 1 or 2	4 ohms minimum
Channel 3	25 ohms minimum
XPA 2003C-100V	
Channel 1 or 2	4 ohms minimum
Channel 3	50 ohms minimum
XPA 2002, XPA 2004	4 ohms (8 ohms if bridged) minimum

Amplifier type Class D

Output power

XPA 2002-70V	200 watts rms per channel, 70 V, 1 kHz, 0.1% THD
XPA 2002-100V	200 watts rms per channel, 100 V, 1 kHz, 0.1% THD
XPA 2003C-70V	
Channel 1 or 2 (8 ohm).....	100 watts rms per channel, 8 ohms, 1 kHz, 0.1% THD
Channel 1 or 2 (4 ohm).....	200 watts rms per channel, 4 ohms, 1 kHz, 0.1% THD
Channel 3 (70 V output)	200 watts rms per channel, 70 V, 1 kHz, 0.1% THD
XPA 2003C-100V	
Channel 1 or 2 (8 ohm).....	100 watts rms per channel, 8 ohms, 1 kHz, 0.1% THD
Channel 1 or 2 (4 ohm).....	200 watts rms per channel, 4 ohms, 1 kHz, 0.1% THD
Channel 3 (100 V output) ..	200 watts rms per channel, 100 V, 1 kHz, 0.1% THD
XPA 2002, XPA 2004	100 watts rms per channel, 8 ohms, 1 kHz, 0.05% THD
	200 watts rms per channel, 4 ohms, 1 kHz, 0.05% THD
	400 watts rms (bridged mono), 8 ohms, 1 kHz, 0.05% THD

Frequency response..... 20 Hz to 20 kHz, ± 1 dB

THD + Noise

XPA 2002-70V, XPA 2002-100V	0.1%, 1 kHz, 3 dB below clipping
XPA 2003C-70V, XPA 2003C-100V	Channels 1 and 2: 0.1%, 20 Hz-20 kHz, 8 ohms, 3 dB below clipping
	Channel 3: 0.1%, 1 kHz, 3 dB below clipping
XPA 2002, XPA 2004	0.1%, 20 Hz to 20 kHz, 8 ohms, 3 dB below clipping

S/N..... 100 dB, 20 Hz - 20 kHz, unweighted

Damping factor

XPA 2002-70V	>100 @ 25 ohms
XPA 2002-100V	>100 @ 50 ohms
XPA 2003C-70V	
Channel 1 or 2	>100 @ 8 ohms
Channel 3	>100 @ 25 ohms
XPA 2003C-100V	
Channel 1 or 2	>100 @ 8 ohms
Channel 3	>100 @ 50 ohms
XPA 2002, XPA 2004	>100 @ 8 ohms

High pass filter

- XPA 2002-70V, XPA 2003C-70V
80 Hz, 12 dB per octave rolloff for 70 V line output (switch selectable)
- XPA 2002-100V, XPA 2003C-100V
80 Hz, 12 dB per octave rolloff for 100 V line output (switch selectable)

Control/remote — amplifier

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

General

- Power supply..... Internal
 - Input: 100-240 VAC, 50-60 Hz, 1.5 A

Power consumption at 115 VAC, 60 Hz

Typical (1/8 power)

- XPA 2002..... 4 ohms (x2): 84.7 watts
8 ohms (x2): 53.4 watts
- XPA 2002-70V 70 V (x2): 84.5 watts
- XPA 2002-100V 100 V (x2): 89.6 watts
- XPA 2003C-70V..... 4 ohms (x2) + 70 V: 122.4 watts
8 ohms (x2) + 70 V: 92.2 watts
- XPA 2003C-100V 4 ohms (x2) + 100 V: 123.1 watts
8 ohms (x2) + 100 V: 94.4 watts
- XPA 2004..... 4 ohms (x4): 146.5 watts
8 ohms (x4): 89.3 watts

Quiescent

- XPA 2002..... 10.9 watts
- XPA 2002-70V 20.8 watts
- XPA 2002-100V 25.1 watts
- XPA 2003C-70V..... 28.9 watts
- XPA 2003C-100V 28.1 watts
- XPA 2004..... 28.7 watts

- Standby <1 watt (triggered by contact closure or after 25 minutes [±5 minutes] with no signal)

Power consumption at 230 VAC, 50 Hz

Typical (1/8 power)

- XPA 2002..... 4 ohms (x2): 85.6 watts
8 ohms (x2): 54.4 watts
- XPA 2002-70V 70 V (x2): 85.6 watts
- XPA 2002-100V 100 V (x2): 90.4 watts
- XPA 2003C-70V..... 4 ohms (x2) + 70 V: 122.4 watts
8 ohms (x2) + 70 V: 92.9 watts
- XPA 2003C-100V 4 ohms (x2) + 100 V: 123.3 watts
8 ohms (x2) + 100 V: 95.3 watts
- XPA 2004..... 4 ohms (x4): 146.2 watts
8 ohms (x4): 89.9 watts

Quiescent

- XPA 2002..... 10.9 watts
- XPA 2002-70V 23.1 watts
- XPA 2002-100V 26.2 watts
- XPA 2003C-70V..... 29.8 watts
- XPA 2003C-100V 28.6 watts
- XPA 2004..... 29.0 watts

Standby	<1 watt (triggered by contact closure or after 25 minutes [±5 minutes] with no signal)
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 heat sinks on the sides
Thermal dissipation at 115 VAC, 60 Hz	
Standby	<1 watt (3 BTU/hr)
Idle	
XPA 2002.....	10.9 watts (37 BTU/hr)
XPA 2002-70V	20.8 watts (71 BTU/hr)
XPA 2002-100V	25.1 watts (86 BTU/hr)
XPA 2003C-70V.....	28.9 watts (99 BTU/hr)
XPA 2003C-100V.....	28.1 watts (96 BTU/hr)
XPA 2004.....	28.7 watts (98 BTU/hr)
1/8 power	
XPA 2002.....	4 ohms (x2): 34.7 watts (119 BTU/hr) 8 ohms (x2): 28.4 watts (97 BTU/hr)
XPA 2002-70V	70 V (x2): 34.5 watts (118 BTU/hr)
XPA 2002-100V	100 V (x2): 39.6 watts (135 BTU/hr)
XPA 2003C-70V.....	4 ohms (x2) + 70 V: 47.4 watts (162 BTU/hr) 8 ohms (x2) + 70 V: 42.2 watts (144 BTU/hr)
XPA 2003C-100V.....	4 ohms (x2) + 100 V: 48.1 watts (164 BTU/hr) 8 ohms (x2) + 100 V: 44.4 watts (152 BTU/hr)
XPA 2004.....	4 ohms (x4): 46.5 watts (159 BTU/hr) 8 ohms (x4): 39.3 watts (134 BTU/hr)
Thermal dissipation at 230 VAC, 50 Hz	
Standby	<1 watt (3 BTU/hr)
Idle	
XPA 2002.....	10.9 watts (37 BTU/hr)
XPA 2002-70V	23.1 watts (79 BTU/hr)
XPA 2002-100V	26.2 watts (89 BTU/hr)
XPA 2003C-70V.....	29.8 watts (102 BTU/hr)
XPA 2003C-100V.....	28.6 watts (98 BTU/hr)
XPA 2004.....	29.0 watts (99 BTU/hr)
1/8 power	
XPA 2002.....	4 ohms (x2): 35.6 watts (122 BTU/hr) 8 ohms (x2): 29.4 watts (100 BTU/hr)
XPA 2002-70V	70 V (x2): 35.6 watts (122 BTU/hr)
XPA 2002-100V	100 V (x2): 40.4 watts (138 BTU/hr)
XPA 2003C-70V.....	4 ohms (x2) + 70 V: 47.4 watts (162 BTU/hr) 8 ohms (x2) + 70 V: 42.9 watts (146 BTU/hr)
XPA 2003C-100V.....	4 ohms (x2) + 100 V: 48.3 watts (165 BTU/hr) 8 ohms (x2) + 100 V: 45.3 watts (155 BTU/hr)
XPA 2004.....	4 ohms (x4): 46.2 watts (158 BTU/hr) 8 ohms (x4): 39.9 watts (136 BTU/hr)
Protection	Clip limiting, thermal, short circuit, DC output
Indication	Limiter/Protect LED indicates the onset of clip limiting, thermal cycling, short circuit, or DC output protection
Mounting	
Rack mount	Yes, with included mounting brackets
Enclosure type	Metal
Enclosure dimensions	1.7" H x 17.4" W* x 12.0" D (1U high, full rack wide) (4.3 cm H x 44.2 cm W* x 30.5 cm D) *Width excludes rack ears. 19.0" (48.3 cm) W with rack ears.

Product weight.....	9.2 lbs (4.2 kg)
Shipping weight.....	12 lbs (6 kg)
Vibration.....	ISTA 1A in carton (International Safe Transit Association)
Regulatory compliance	
Safety.....	CCC, CE, c-UL, GS, KCC, PSE, S-Mark, UL Meets UL 60065, IEC 60065, and BSEN 60065 for AV equipment.
EMI/EMC.....	CE, CISPR 22 Class B, CISPR 24, C-tick, EN55103-1, EN55103-2, FCC Class B, ICES, 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 $\pm 10\%$

NOTE: Specifications are subject to change without notice.

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