

## Specifications

### IN1808 Series

#### TRUE 4K specification

Max. 4K Capabilities		
Resolution and Refresh Rate	Chroma Sampling	Max. Bit Depth per Color
4096 x 2160 at 60 Hz <sup>2</sup>	4:4:4	8 bit
3840 x 2160 at 60 Hz		
4096 x 2160 at 30 Hz		10 bit <sup>3</sup>
3840 x 2160 at 30 Hz		
4096 x 2160 at 60 Hz	4:2:0 <sup>4</sup>	
3840 x 2160 at 60 Hz		

Frame rate <sup>1</sup> .....	24, 25, 30, 50, or 60 fps
Chroma sampling <sup>1</sup> .....	4:4:4 and 4:2:2, 4:2:0 at input only
Color bit depth <sup>1</sup> .....	8 or 10 bits per color
Signal type .....	DVI v1.0, HDMI v1.4 and v2.0, DisplayPort v1.2, HDCP v1.4 and v2.2
Max. video data rate <sup>1</sup>	
HDMI .....	18 Gbps (6 Gbps per color)
DisplayPort .....	21.6 Gbps (5.4 Gbps per lane)

#### NOTES:

- <sup>1</sup>Subject to the maximum data rate limit. Use our calculator at [www.extron.com/4KdataRate](http://www.extron.com/4KdataRate) to determine video parameters supported by this data rate.
- <sup>2</sup>4096 x 2160/50-60 at 4:4:4 is only available for HDMI and DisplayPort connections.
- <sup>3</sup>DTP2 and XTP are 8 bits per color for all 4096 x 2160 formats.
- <sup>4</sup>4:2:0 chroma sub-sampling is supported at input only.

#### Video input

Number/signal type .....	1 DisplayPort (HDCP compliant) 5 HDMI/DVI (HDCP compliant) 1 HDMI/DVI loop-out, configurable (HDCP compliant) 2 DTP2/XTP-configurable, HDCP compliant
Connectors .....	1 female DisplayPort 5 female HDMI type A 1 female HDMI type A loop-out 2 female RJ-45
Horizontal frequency .....	15 kHz to 135 kHz
Vertical frequency .....	24 Hz to 75 Hz
Resolution range .....	640x480 @ 60 Hz through 4096x2160 @ 60 Hz with 4:4:4 chroma sampling Includes 480i, 480p, 576i, 576p, 720p, 1080i, 1080p, 2K, and 4K.
Standards .....	DVI v1.0, HDMI v2.0, DisplayPort v1.2, HDCP v1.4 and v2.2

#### Video processing

Digital sampling .....	8 or 10 bits per color; 600 MHz pixel clock maximum
Colors .....	1.07 billion (10 bit 4:4:4 processing)

# Specifications • IN1808 Series (Continued)

## Video output

Number/signal type.....	1 HDMI/DVI (HDCP compliant) 1 DTP2/XTP/HDBT, configurable (HDCP compliant)
Connectors.....	1 female HDMI type A 1 female RJ-45
Peripheral device power.....	250 mA per output (HDMI outputs only)
Scaled resolution .....	640x480 <sup>8</sup> , 800x600 <sup>8</sup> , 1024x768 <sup>8</sup> , 1280x768 <sup>8</sup> , 1280x800 <sup>8</sup> , 1280x1024 <sup>8</sup> , 1360x768 <sup>8</sup> , 1366x768 <sup>8</sup> , 1440x900 <sup>8</sup> , 1400x1050 <sup>8</sup> , 1600x900 <sup>8</sup> , 1680x1050 <sup>8</sup> , 1600x1200 <sup>8</sup> , 1920x1200 <sup>8</sup> , 2048x1200 <sup>8</sup> , 2048x1536 <sup>8</sup> , 2560x1080 <sup>8</sup> , 2560x1440 <sup>8</sup> , 2560x1600 <sup>8</sup> , 3840x2160 <sup>1,2,3,4,5,6,7,8*</sup> , 4096x2160 <sup>1,2,3,4,5,6,7,8*</sup> , and Custom 1-8 480p <sup>7,8</sup> , 576p <sup>6</sup> , 720p <sup>3,4,5,6,7,8</sup> , 1080i <sup>6,7,8</sup> , 1080p <sup>1,2,3,4,5,6,7,8</sup> , 2K <sup>1,2,3,4,5,6,7,8</sup> , and UHD/4K <sup>1,2,3,4,5,6,7,8</sup>
Standards .....	<sup>1</sup> 23.98 Hz, <sup>2</sup> 24 Hz, <sup>3</sup> 25 Hz, <sup>4</sup> 29.97 Hz, <sup>5</sup> 30 Hz, <sup>6</sup> 50 Hz, <sup>7</sup> 59.94 Hz, <sup>8</sup> 60 Hz *Available on HDMI output or to a DTP2 Rx
Standards .....	DVI v1.0, HDMI v1.4 and v2.0, HDCP v1.4 and v2.2

## Audio

Gain.....	Unbalanced output: -6 dB; balanced output: 0 dB
Frequency response .....	20 Hz to 20 kHz, ±0.5 dB
THD + Noise .....	<0.1%, 20 Hz to 20 kHz at nominal level
S/N.....	>90 dB at maximum balanced output (unweighted)
Crosstalk .....	≤-80 dB @ 1 kHz, fully loaded
Stereo channel separation.....	>80 dB @ 1 kHz
Supported formats	
Analog de-embedding.....	LPCM-2Ch
HDMI pass-through.....	LPCM up to 7.1/24-bit/192 kHz, Dolby TrueHD, Dolby Digital Plus, Dolby Digital EX, Dolby Digital 5.1, Dolby Digital 2/0 Surround, Dolby Digital 2/0, Dolby Atmos 7.2, DTS-HD Master Audio, DTS-HD, DTS ES Discrete 6.1, DTS ES Matrix 6.1, DTS Digital Surround 5.1, DTS 2-channel

## Audio input

Number/signal type.....	2 stereo line level, balanced or unbalanced 2 mono mic/line level, balanced or unbalanced, (with available phantom power) 6 stereo, de-embedded from HDMI/DisplayPort (PCM only) 2 DTP2/XTP (de-embedded HDMI—PCM only, or remote unbalanced analog*) *Available only in DTP mode
Connectors.....	(2) 3.5 mm, 5 pole captive screw for line (2) 3.5 mm, 3 pole captive screw for mic/line 5 female HDMI type A 1 female DisplayPort 2 RJ-45 female
Impedance.....	>10K ohms unbalanced, >20K ohms balanced
Nominal level.....	Line inputs: +4 dBu (1.23 Vrms), -10 dBV (316 mVrms), adjustable Mic/line inputs: -60 dBV, +4 dBu, -10 dBV, adjustable
Maximum level .....	Line inputs: +21 dBu balanced, +15 dBu unbalanced Mic/line inputs: -60 dBV, +4 dBu, -10 dBV, adjustable
CMRR.....	>80 dB @ 1 kHz
Input gain adjustment.....	Line inputs: -18 dB to +24 dB in 0.1 dB steps, adjustable per input LPCM-2Ch inputs: -18 dB to +24 dB in 0.1 dB steps, adjustable per input Mic/line inputs: -18 dB to +60 dB in 0.1 dB steps, adjustable per input
DC phantom power .....	+48 VDC ±10% (can be switched on or off per mic/line input)

## Specifications • IN1808 Series (Continued)

### Audio output – Line out

Number/signal type.....	2 stereo or 4 mono, balanced/unbalanced 1 HDMI, embedded 1 DTP2/XTP/HDBT (embedded digital, and remote balanced/unbalanced analog*) *Available only in DTP mode
Connectors.....	(2) 3.5 mm, 5 pole captive screw 1 female HDMI type A 1 female RJ-45
Impedance.....	50 ohms unbalanced, 100 ohms balanced
Gain error.....	±0.5 dB channel to channel
Maximum level (Hi-Z).....	>+21 dBu, balanced; >+15 dBu, unbalanced
Output volume range .....	0 to -100 dB in 0.1 dB steps (Volume control not available on loop output)

### Audio output – power amplifier – IPCP models only

Number/signal type	
IN1808 IPCP SA.....	1 stereo (default) or 2 mono (2 channels total)
IN1808 IPCP MA 70 .....	1 mono, 70 V line

**NOTE:** The 5 mm screw lock captive screw connector accepts wires of 22 AWG to 12 AWG.

Connectors	
IN1808 IPCP SA.....	(1) 5 mm, 4 pole, screw lock captive screw
IN1808 IPCP MA 70 .....	(1) 5 mm, 2 pole, screw lock captive screw
Load impedance	
IN1808 IPCP SA.....	4 ohms minimum
IN1808 IPCP MA 70 .....	50 ohms minimum
Amplifier type.....	Class D
Output power	
IN1808 IPCP SA.....	25 watts per channel, 8 ohms, 1 kHz, 0.1% THD, or 50 watts per channel, 4 ohms, 1 kHz, 0.1% THD
IN1808 IPCP MA 70 .....	100 watts (rms) @ 70 V, 1 kHz, 0.1% THD
Protection .....	Clip limiting, thermal, short circuit, DC output
Frequency response .....	20 Hz to 20 kHz, -3 dB to +1 dB @ 1 W
THD + Noise.....	<0.1% @ 1 kHz, 3 dB below clipping
S/N.....	>90 dB, 20 Hz to 20 kHz, unweighted

### Communications

Serial control port.....	1 bidirectional RS-232, 3.5 mm, 3 pole captive screw connector (rear panel)
Baud rate and protocol .....	9600, 8 data bits, 1 stop bit, no parity (default)
Serial control pin configuration .....	1 = Tx, 2 = Rx, 3 = Gnd
USB control port.....	1 female mini USB B (front panel)
USB standards .....	USB 2.0, high speed
Ethernet	
Connector .....	1 female RJ-45* *IN1808 only. IPCP models use IPCP Ethernet ports.
Ethernet data rate.....	10/100/1000Base-T, half/full duplex with autodetect
Ethernet protocol.....	ARP, ICMP (ping), IP, TCP, DHCP, HTTP, Telnet
Ethernet default settings.....	Link speed and duplex level = autodetected IP address = 192.168.254.254 Subnet mask = 255.255.255.0 Gateway = 0.0.0.0 DHCP = off
Storage .....	512 MB user memory
Program control.....	Extron Product Configuration Software (PCS) program for Windows® Extron Simple Instruction Set (SIS™) Microsoft® Internet Explorer®

## Specifications • IN1808 Series (Continued)

### Communications – IPCP Pro Control Processor with AV LAN – IPCP models only

Memory	
SDRAM .....	512 MB
Flash .....	4.5 GB
Software and control options .....	
Software.....	Extron Global Configurator Plus and Professional for Windows®
Control options.....	GlobalViewer®, eBus®, TouchLink® for Web, Touchlink for iPad®, or TouchLink Pro touchpanels
Ethernet control	
Network interface controllers (NICs)	2: 1 LAN, 1 AV LAN
AV LAN network switch .....	1 unmanaged 3 port switch
Connectors	
LAN .....	1 female RJ-45
AV LAN.....	3 female RJ-45
Ethernet data rate.....	10/100/1000Base-T, half/full duplex with autodetect
Protocols.....	DHCP, DNS, HTTP, HTTPS, ICMP, NTP, SFTP, SMTP, SNMP, SSH, TCP/IP, UPD/IP
Default settings	
LAN .....	IP address = 192.168.253.250 Subnet mask = 255.255.255.0 Gateway = 0.0.0.0 DHCP = Off DNS = 127.0.0.1
AV LAN.....	Link speed and duplex level = autodetect DHCP server = disabled IP address = 192.168.254.250 Subnet mask = 255.255.255.0 Gateway = 0.0.0.0
DHCP server disabled..	IP address = 192.168.254.250 DNS = 127.0.0.1
DHCP server enabled ..	IP address = 192.168.254.1 Dynamic leased IP address pool = 192.168.254.100 – 192.168.254.149 Maximum lease count = 50 Lease time = 24 hours

### Communications – external device RS-232/IR over DTP2/XTP/HDBT

Serial control pass-through ports ...	DTP2/XTP Tx to IN1808: RS-232 can be transmitted to and from DTP2/XTP Tx via Ethernet insertion.  IN1808 to DTP2/XTP/HDBT Rx: IR pass-through via (1) 3.5 mm, 3 pole captive screw connector RS-232 can be transmitted to and from DTP2/XTP/HDBT Rx via Ethernet insertion.
Baud rates.....	Up to 115200 baud
Protocol.....	6 to 8 data bits 1 or 2 stop bits Even or odd parity, no parity (default)
IR control pass-through ports.....	IN1808 to TP Rx: (1) 3.5 mm, 3 pole captive screw connector TTL level (0 to 5 V) modulated infrared control from 30 kHz up to 60 kHz
IR control pin configuration .....	1 = Tx, 2 = Rx, 3 = Gnd

# Specifications • IN1808 Series (Continued)

## General

Power supply .....	Internal Input: 100-240 VAC, 50-60 Hz
Power consumption	
Full power	
IN1808 .....	TBD watts
IN1808 IPCP SA .....	TBD watts
IN1808 IPCP MA 70 .....	TBD watts
Power save mode	
IN1808 .....	TBD watts
IN1808 IPCP SA .....	TBD watts
IN1808 IPCP MA 70 .....	TBD watts
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	
IN1808 .....	2 fans, air flows from right to left (when viewed from the front)
IN1808 IPCP models .....	1 fan, air flows from right to left (when viewed from the front)
Fan noise	
IN1808 .....	TBD dB(A)
IN1808 IPCP models .....	TBD dB(A)
Thermal dissipation	
Full power	
IN1808 .....	TBD BTU/hr
IN1808 IPCP SA .....	TBD BTU/hr
IN1808 IPCP MA 70 .....	TBD BTU/hr
Power save mode	
IN1808 .....	TBD BTU/hr
IN1808 IPCP SA .....	TBD BTU/hr
IN1808 IPCP MA 70 .....	TBD BTU/hr
Mounting	
Rack mount .....	Yes, with optional rack shelf
Furniture mount .....	Yes, with optional under-desk or through-desk mounting kit
Enclosure type .....	Metal
Enclosure dimensions	
IN1808 .....	1.75" H x 17.5" W x 10.5" (4.4 cm H x 44.4 cm W x 26.7 cm D)
IN1808 IPCP models .....	3.50" H x 17.5" W x 10.5" D (8.9 cm H x 44.4 cm W x 26.7 cm D)
Product weight	
IN1808 .....	TBD lbs (TBD kg)
IN1808 IPCP SA .....	TBD lbs (TBD kg)
IN1808 IPCP MA 70 .....	TBD lbs (TBD kg)
Regulatory compliance .....	CE, c-UL, UL, PSE, RoHs, and WEEE
Product warranty .....	3 years parts and labor
Everlast power supply warranty .....	7 years parts and labor

**NOTE:** All nominal levels are at  $\pm 10\%$ .

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

**NOTE:** Shipping weights and dimensions are available at [www.extron.com](http://www.extron.com).