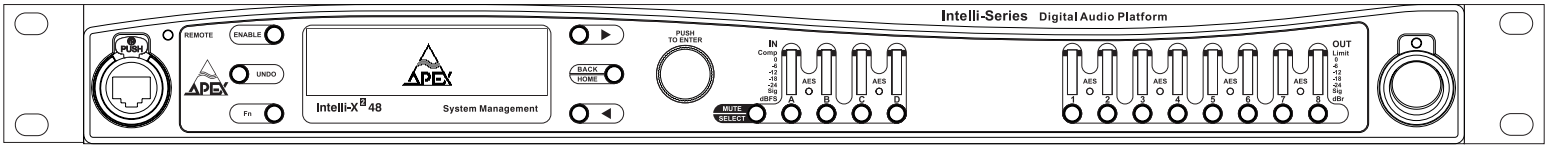
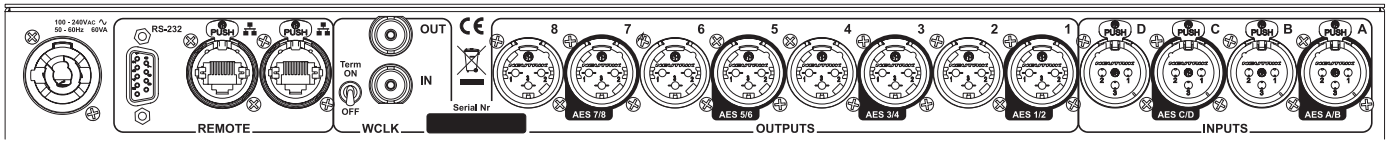
Intelli-X² 48

System Management

Datasheet





Featuring internal processing up to 192 kHz as standard, high-end studio-grade analogue circuit designs and mastering-grade compressors, the new Intelli-series sets the new benchmark in system management and speaker processing design.

Whether the application is for a standalone system controller or crossover, configured using front panel controls, or a comprehensive wireless networked system for Stadium or Arena sized tours, the Intelli-X² is designed to provide the solution that our clients demand. With a comprehensive preset library provided as standard, implementing the Intelli-series into your system couldn't be easier.

Electrical specifications

Balanced line level inputs

Connectors:	3-pin XLR (software switch-able between analog and AES-3)
Type:	electronically balanced
Impedance:	>10k ohms, balanced
Common mode rejection:	>90dB
Max input level:	18, 21, 24 or 27 dBu software selectable, balanced, 1% THD+N
Frequency response:	20 Hz - 20 kHz, ±0.5 dB
THD+N:	less than 0,005%, +4 dBu, 20Hz- 20 kHz, 22 kHz BW
Dynamic range:	120 dB, 20 Hz to 20kHz, un-weighted at +21dBu headroom settings
Crosstalk:	>90 dB
AD conversion:	24-bit, sigma-delta

Balanced line level outputs

Connector:	3-pin XLR (software switch-able between analog and AES-3)
Type:	electronically balanced
Impedance:	<50 ohms, balanced
Max output level:	15, 18, 21, 24 dBu software selectable, into 600 ohms, balanced, 1% THD+N
Frequency response:	20 Hz - 20 kHz, ±0.5 dB
THD+N:	less than 0,005%, +4 dBu, 20Hz- 20 kHz, 22 kHz BW
Dynamic range:	120 dB, 20 Hz to 20kHz, un-weighted at +21dBu headroom settings
Crosstalk:	>90 dB
DA conversion resolution:	24-bit

AES-3 inputs

Connector:	3-pin XLR (software switch-able between analog and AES-3)
Type:	transformer isolated
Impedance:	110 ohms or 75 ohms selectable (internal jumper), balanced
Supported formats:	AES-3 and SPDIF up to 24-bit
Supported sample rates:	32 to 192 kHz

AES-3 outputs

Connector:	3-pin XLR (software switch-able between analog and AES-3)
Type:	transformer isolated
Impedance:	110 ohms or 75 ohms selectable (internal jumper), balanced

Word-clock input

Connector:	BNC
Termination:	75 ohms switch-able
Input level:	1 to 10 Vpp

Word clock output

Connector:	BNC
Impedance:	75 ohms
Output level:	TTL 5 Vpp

Digital processing

Sample rate:	44,1kHz, 48kHz, 88,2kHz, 96kHz, 176,4kHz or 192kHz selectable
Internal processing:	32-bit floating point
Input / output channel:	Intelli-X² 26: 2 in x 6 out
	Intelli-X² 48: 4 in x 8 out

Network remote control

Built-in Ethernet switch:	IEEE 802.3 10Base-T/100Base-TX
Connectors:	3 x Neutrik EtherCon, Auto MDI-MDIX
Protocol:	Proprietary UDP/IP based, SNMP

RS-232

Connector:	D-sub 9-pin female

Mains

Connector:	Neutrik PowerCon	
Voltage:	Auto-detect 100-240 Vac (+/- 10 %) – 50-60 Hz	
Power consumption:	Intelli-X² 26	< 60 VA
	Intelli-X² 48	< 60 VA

Input channels functions

Gain:	-80 to +15dB, 0,1dB steps
Polarity:	normal / inverted
Delay:	
Duration:	0 to 1500ms, sample rate depend steps,
Distance:	0 to 500m
Temperature:	-20 to 50°C (-4 to 122°F), 0,1° steps
Relative humidity:	0 to 100%, 0,1% steps
GEQ:	30-band ISO centred, +/-15 dB, proportional-Q or constant-Q mode selectable
PEQ:	
Bands	12
Filter types:	Bell-Symmetrical, Bell-Asymmetrical, Notch, Low-Shelving 6dB/oct, Low-Shelving 12dB/oct, High-Shelving 6dB/oct , High-Shelving 12dB/oct, All-Pass 90°, All-Pass 180°, High-Pass 6dB/oct, High-Pass 12dB/oct, High-Pass Vari-Q 12dB/oct, Low-Pass 6dB/oct, Low-Pass 12dB/oct, Low-Pass Vari-Q 12dB/oct, Band-Pass
Frequency:	10Hz to 22kHz, 0,1Hz steps
Gain:	-40 to +15dB, 0,1dB steps (when applicable)
Q:	0,1 to 48, 0,01 steps (when applicable)
Compressor:	
Threshold:	-80 to 0dBfs, 0,1dB steps
Ratio:	1:1 to 20:1, 1 steps
Knee:	hard or soft
Attack time:	0,5 to 100ms, 0,1ms steps
Release time:	5 to 5000ms, 0,1ms steps
Side-chain mode:	flat, high-pass or band-pass mode
Make-up gain:	0 to +10dB, 0,1dB steps

Mix matrix functions

Gain:	-80 to +15dB, 0,1dB steps
Routing:	enabled/disabled

Output channel functions

Delay:	
Duration:	0 to 1500ms, sample rate depend steps,
Distance:	0 to 500m
Temperature:	-20 to 50°C (-4 to 122°F), 0,1° steps
Relative humidity:	0 to 100%, 1% steps

Apex nv ° Schoebroekstraat 62 ° 3583 Beringen ° Belgium

www.apex-audio.eu ° info@apex-audio.eu

Driver alignment:

Duration:	0 to 30ms, sample rate depend steps,
Distance:	0 to 1029cm, 0,1cm steps (temperature and relative humidity independent)

PEQ:

Bands	12
Filter types:	Bell-Symmetrical, Bell-Asymmetrical, Notch, Low-Shelving 6dB/oct, Low-Shelving 12dB/oct, High-Shelving 6dB/oct , High-Shelving 12dB/oct, All-Pass 90°, All-Pass 180°, High-Pass 6dB/oct, High-Pass 12dB/oct, High-Pass Vari-Q 12dB/oct, Low-Pass 6dB/oct, Low-Pass 12dB/oct, Low-Pass Vari-Q 12dB/oct, Band-Pass
Frequency:	10Hz to 22kHz, 0,1Hz steps
Gain:	-40 to +15dB, 0,1dB steps (when applicable)
Q:	0,1 to 48, 0,01 steps (when applicable)

High-pass and low-pass crossover:

Filter types:	Butterworth 6 to 48dB/octave, 6dB steps Linkwitz-Riley 12 to 48dB/octave, 12dB steps Bessel 12 to 48dB/octave, 6dB steps
Frequency:	10Hz to 20kHz, 0,1Hz steps

FIR filters:

At 48 kHz:	5 x 1024 taps or 8 x 512 taps
At 96 kHz:	3 x 1024 taps or 8 x 512 taps

Gain: -80 to +15 dB, 0,1 dB steps

Polarity: normal / inverted

Limiter:

Type:	Dual-stage, RMS + Peak limiter
RMS threshold:	-80 to 0 dBfs (or dBu equivalent), 0,1 dB steps
Peak threshold:	-80 to 0 dBfs (or dBu equivalent), 0,1 dB steps
RMS attack:	0,1 to 100 ms, 0,1 ms steps
Peak attack:	0ms
Release:	5 to 5000 ms, 0,1 ms steps

Environment

Operating

Temperature:	0° to 50° C
Relative humidity:	10 to 60 %, non-condensing

Storage

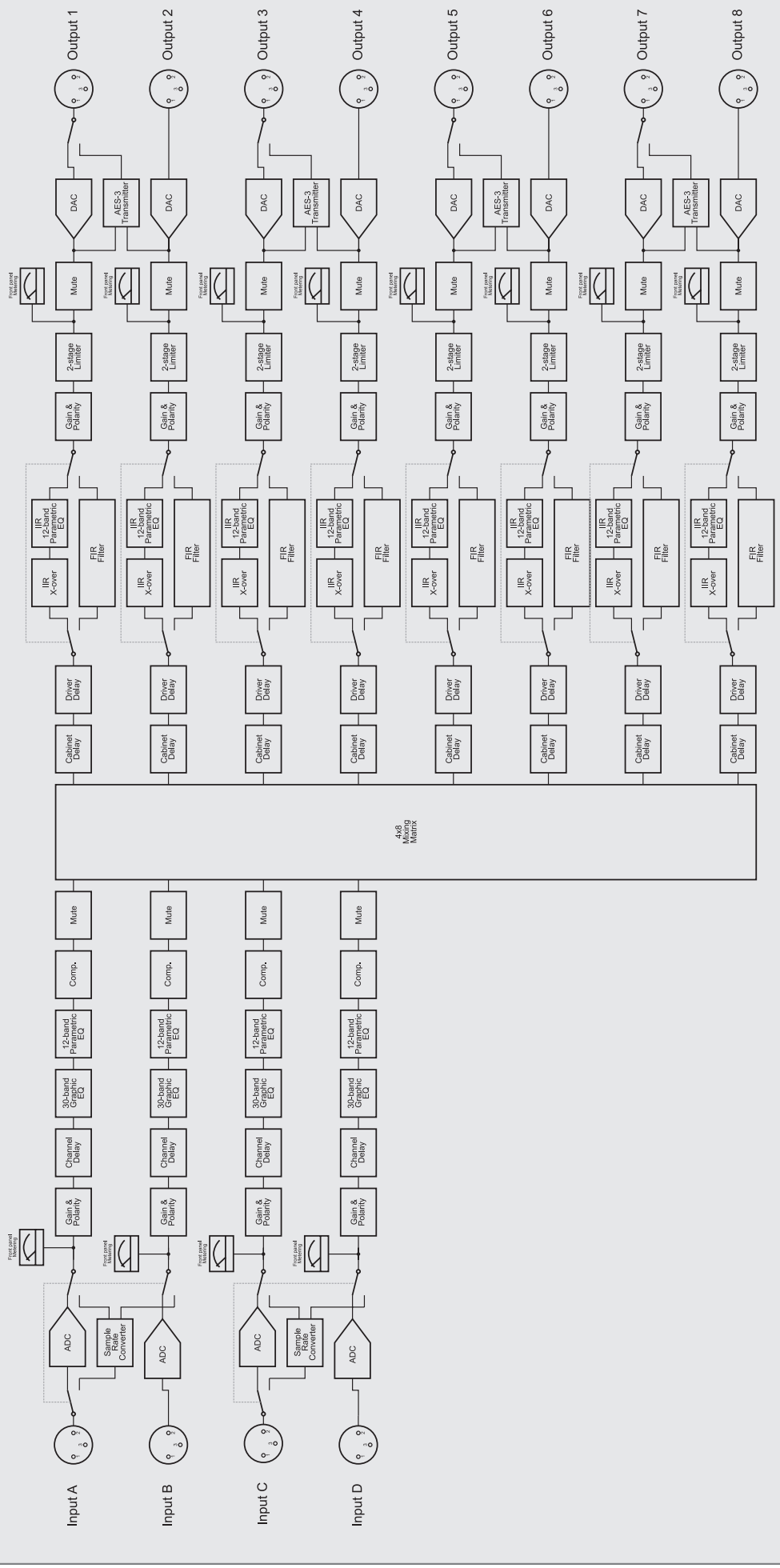
Temperature:	-20° to 70° C

Mechanical specifications

Dimensions

Unit	
Width:	483 mm (19-inch)
Height:	43,6 mm (1,75-inch - 1U)
Depth:	286 mm
Package	
Width:	590 mm
Height:	120 mm
Depth:	400 mm

Weight

Unit (Nett):	Intelli-X² 26	3,75 kg
	Intelli-X² 48	3,75 kg
Package (Shipping):	Intelli-X² 26	5,5 kg
	Intelli-X² 48	5,5 kg

Block Diagram