

XiT4: 4 Channel Multi-Purpose Amplifier



X series

MAIN FEATURES

- Four channels of sonically pure Class D amplification
- Unique, precise 96kHz digital signal processing
- Pure Class-D amplification
- Dual 85V to 240V Auto-sensing PSU
- 5.000W RMS total output
- Tamper-proof front panel
- USB & BvNet (optimised RS485) network for operation and monitoring
- Contact closure voice pre-set selection and shutdown
- 2 Ohm and 70V / 100V Line Capability
- Manufactured entirely in the UK

4 channels, power output per channels		
	Per Channel	Bridged Pair
2 Ohm	1.250W	
4 Ohm	800W	2.500W
8 Ohm	450W	1.600W

About XiT4 4 Channel DSP Amplifier

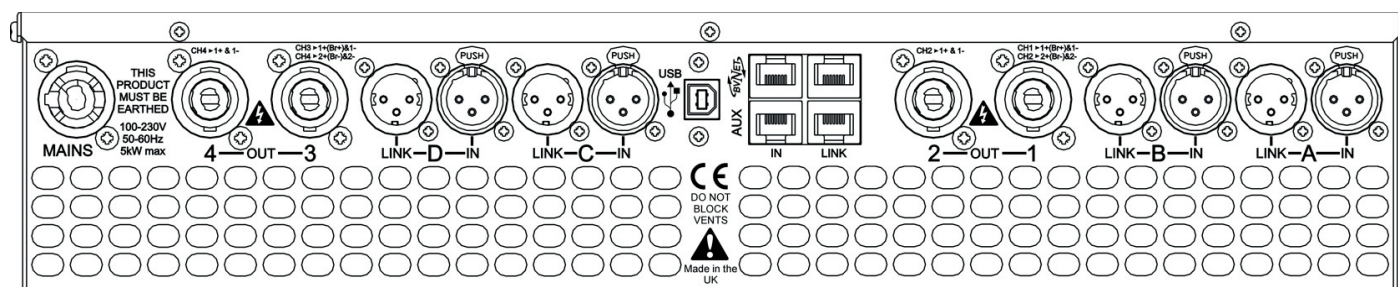
The XiT4 is a four channel amplifiers optimised for lower demanding pro audio applications. Offering a unique combination of power output, audio performance and combined with advanced 96kHz DSP and network control.

Sharing the same form factor as TecnaRE's T44&48 Series amplifiers, each of the XiT4 four channels can deliver 1250 Watts RMS in to 2 ohms continuously, or up to 2500 Watts in to 4 ohms for a bridged pair of channels. These are not burst or peak power figures, they are the power levels that are delivered by all channels simultaneously.

With the X Series amplifier there is no need to ratio power between channels, you can use all the power in any format as you please, even when the driven with the same dense program material.

Remote control operation is via the PC application 'System Engineer'. The system engineer application provides convenience and time saving features such as very flexible management of presets, Overlay grouping of Mutes, Gains, Delays and EQ across an entire system. BvNet is a RS485 based system that allows many XiT4 amplifiers to be 'daisy chained' over hundreds of metres, using low cost RJ45 cables without the need for a network switch. You can also connect via USB.

The XiT4 also provides extensive fault and status logging including driver integrity monitoring. These facilities are usually only associated with very expensive specialised products and this is the first time that they have been made available as standard features for no additional cost.



General Specifications

Number of channels	Four
Total Power output, all channels driven	5.000 Watts RMS
Audio inputs	4 x Analogue
Digital Signal Processing	High performance 96kHz DSP processing on all inputs and outputs
Control, monitoring and system status alarms	USB & BvNet (optimised RS485) Contact closure port for voice recall and system shutdown
Power-save mode	Standby after user defined time with fast wake-up on audio Deep ECO sleep after user defined time, wake up on command
System sleep and wakeup	Front panel switch, network command and audio detection

Audio Performance

Amplifier topology	Proprietary Class D
Amplifier modulation scheme	Low feedback, multiple loop, with feed-forward error correction
Frequency response, 4 Ω load	20Hz to 20kHz, +/- 0.5dB
Total harmonic distortion, THD	<0.05% typical, 1kHz signal, AES17 filter, 4 Ω load
Inter-channel crosstalk worst case combination	Better than -80dBr at 1kHz
Maximum analogue input level	+20dBu
Analogue input sensitivity range for full output	0dBu to +20dBu, continuously adjustable
Analogue input and link (four channels)	Input 10k Ω , electronically balanced, link directly connected to analogue input
Analogue ground scheme	AES48 standard compliant
Gain (with all the DSP level control set to 0dB)	27dB
Slew rate	>25V per microsecond typical
Damping factor (Ref 8 Ohm)	>100 at amplifier output

Power Output

Power Specification	RMS output power per channel, all channels driven with continuous program material and nominal ambient temperature of 40degC/ 105degF	
Crest Factor of 4 (12dB), 2 Ω nominal load	1.250 W per channel	
Crest Factor of 2.8 (9dB), 4 Ω nominal load	800 W per channel	2.500 W per bridge pair
Crest Factor of 2 (6dB), 8 Ω nominal load	450 W per channel	1.600 W per bridge pair
25V line (CV) operation, Crest Factor 4(12dB)	625 W per channel	
70V / 100V line operation, Crest Factor 4 (12dB)	1.250 W per channel - can drive 70V/100V line to -2dB/-5dB max.	2.500 W per bridge pair

Digital Signal Processing

Resolution	40 bit, proprietary algorithms
Sample rate	96kHz throughout
Input processing, per channel	Input signal routing, delay, gain, Polarity, Mute EQ: 4 th order HPF, 4 th order LPF, 8 x Parametric, Low and High shelving filters
Output processing, per channel	Source, delay, gain, polarity, Mute, up to 8 th order crossover filters, intelligent limiters EQ: 6xPEQ/ Low and high shelving filters
Crossover filter types	Bessel, Butterworth, Linkwitz-Riley, Hardman
Pre-set management	4 voice pre-sets per channel pair, selected by contact closure

Power Supply

Topology (main power supply)	3rd generation Series Resonant
Nominal mains input voltage range	85V to 240V Power supply automatically detects voltage and configures accordingly
Mains inputs frequency range	47Hz to 63Hz
Mains inrush current (max for <10ms)	23A at 115V and 46A at 230V

Protections Systems

Under all circumstances the control and protection systems will endeavour to deliver the maximum power possible for a given set of conditions, applying limiters only in extreme circumstances. Muting will only occur when a dangerous situation is detected, normal operation automatically resuming when the condition clears.

System protection	Speaker protection
Excessive power supply current (per channel pair)	Sonical clean audio limiter
Excessive internal temperature (per channel pair)	DC Offset protection
Main voltage within acceptable limits	Internal stored information
Output current within limits (each channel)	Log of temperature over time, protection gain reduction over time
Driver impedance within limits (each channel)	Log of output current over time (each channel), Power cycle count
Power throughput within limits (each channel)	
Switch on main surge	

An inbuilt notification system to indicate problems to remote devices via the network.

Physical

Cooling	Dual vari-speed fans, front to back airflow. Washable, tool less change filter media.
Analogue IN and LINK	4x female and 4x male Neutrik™ XLR
AES3 dual channel IN and LINK	1x female and 1x male Neutrik™ XLR
Amplifiers output	4x Neutrik SpeakON™ NL4 connectors
Main input connector	Neutrik 20A PowerCON™
USB	Standard USB type 'B'
Network (BvNet)	RJ45 in with RJ45 daisy-chain link
Contact closure and shutdown inputs	RJ45 in with RJ45 daisy-chain link
LED indicators	Bright, easily differentiated
Operating temperature range an humidity	0 to + 40°C, (+32 to +105°F); 0 to 80% RH (non-condensing)
Enclosure	Standard 19" 2U (88x357)mm (14"deep) with handles and optional rear support
Optional accesories	Rear rack support kit (TS-TRSK)
Net Weight	9,5kg (20 lbs)

