

• XiB4

4 Channel Multi-Purpose Amplifier



Offering a unique combination of power output, audio performance and cost-effectiveness combined with advanced 96kHz DSP and network control, the XiB4 amplifier from Linea Research includes features that make it an

ideal choice for both live sound and contractor applications. Sharing the same form factor as Linea's higher power M and C series amplifiers, the XiB4 can deliver a solid 1,250Watts in to 2 Ohms from each of its four channels or 2,500 Watts in to 4

Ohms for a bridged pair. The dual power supply architecture results in generous power reserves ensuring that pristine sound quality is maintained even when all channels are driven with the same dense program material.



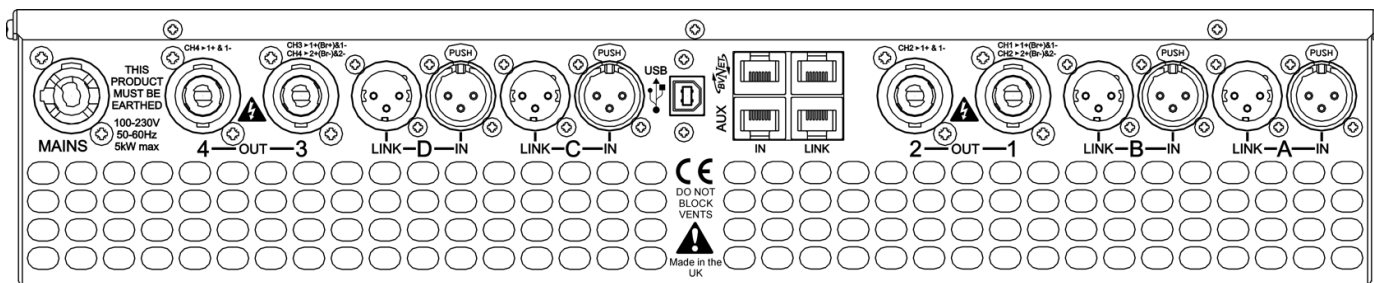
- Four channels of sonically pure Class D amplification
- Unique, precise, 96kHz digital signal processing
- Dual independent switch mode power supplies
- 5,000 Watts RMS total output
- Shallow 14", 360mm deep 2U steel chassis
- Tamper-proof front panel
- USB & BvNet (optimised RS485) network for operation and monitoring
- Contact closure voice pre-set selection and shutdown
- Fully designed and engineered by Linea's in-house development team
- Manufactured, tested and supported entirely in the UK

Power output, all channels driven		
	Per channel	Bridged Pair
2 Ohm	1,250W	
4 Ohm	800W	2,500W
8 Ohm	450W	1,600W

At Linea Research you will find a company which is committed to designing and producing the finest audio equipment in the world. Research and Development work is led by founder directors Ben Ver and Paul Williams who share a distinguished 25-year history at the top end of our industry. Together with the third founder, Davey Smalley who incorporated Linea in 2003, they have successfully supplied tens of thousands of products to all corners of the globe via OEM technical partners.

Linea Research products are now available under our own brand from a team of distribution partners who share a passion for and commitment to high end audio engineering.

When you choose Linea Research you will be working with people who design the products, people who use the products and above all, people who know pro audio and care about performance and quality.



General Specifications

Number of output channels	Four
Total power output, all channels driven	5,000 Watts RMS
Audio inputs	4x Balanced Analogue
Digital Signal Processing	High performance 96kHz DSP on all inputs and outputs
Control, monitoring and system status	USB and BvNet (optimised RS485) Contact closure ports for voice recall and system shutdown
Power-save modes	Standby after user defined time with fast wake up on audio detection or from a network command

Power Output

Power specification	RMS output all channels driven with continuous program material and a nominal ambient temperature of 40°C / 105°F	
Crest Factor of 4 (12dB), 2 Ohm nominal load	1,250W per channel	
Crest Factor of 2.8 (9dB), 4 Ohm nominal load	800W per channel	2,500W per bridged pair
Crest Factor of 2 (6dB), 8 Ohm nominal load	450W per channel	1,600W per bridged pair
25V line (CV) operation, Crest Factor 4 (12dB)	625W per channel	
70V line* (CV) operation, Crest Factor 4 (12dB)	1,250W per channel *can drive 70V line to -2dB max.	2,500W per bridged pair
100V line* (CV) operation, Crest Factor 4 (12dB)	1,250W per channel *can drive 100V line to -5dB max.	2,500W per bridged pair

Audio Performance

Amplifier topology	Linea Research high performance Class D
Amplifier modulation scheme	Low feedback, multiple loop, with feed-forward error correction
Output noise, ref. maximum amplifier output	Better than 106dBA typical, unmuted
Gain (with all the DSP level controls set to 0dB)	27dB
Frequency response, 4 Ohm load	20Hz to 20kHz, +/-0.5dB
Total harmonic distortion, THD	<0.05% typical, 1kHz signal, AES17 filter, 4 Ohm load
Inter-channel crosstalk, worst case combination	Better than -80dB at 1kHz
Slew rate	>25V per microsecond typical
Damping factor (Ref 8 Ohms)	>100 at amplifier output (see Linea's "Damping factor debunked" white paper)
Maximum analogue input level	+20dBu
Analogue input sensitivity range for full output	0dBu to +20dBu, continuously adjustable
Analogue input (four channels)	Input 10k Ohm, electronically balanced, link directly connected to input
Analogue ground scheme	AES48 standard compliant

Digital Signal Processing

Resolution	40 bit, using Linea Research proprietary algorithms
Sample rate	96kHz throughout
Input processing, per channel	Input signal routing, Delay, Gain, Phase, Mute EQ: 4 th order HPF, 4 th order LPF, 8x Parametric, Low and High shelving filters
Output processing, per channel	Source, Delay, Gain, Phase, Mute, up to 8 th order crossover filters, intelligent limiter EQ: 6x Parametric, Low and High shelving filters
Crossover filter types	Bessel Butterworth Linkwitz-Riley Hardman (Like Linkwitz-Riley but with better out of band rejection)
Pre-set management	4 voice pre-sets per channel pair, selected by contact closure

Power Supply

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

Protections Systems

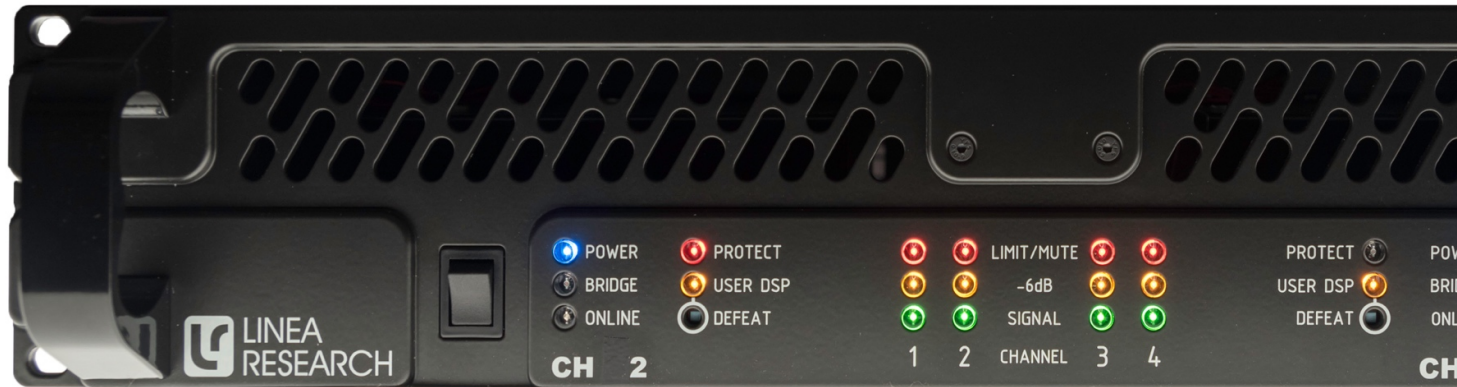
Under all circumstances the control and protection systems will endeavour to deliver the maximum power possible for a given set of conditions, applying limiters only in extreme circumstances. Muting will only occur when a dangerous situation is detected, normal operation automatically resuming when the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

System protection	Speaker protection
Excessive power supply current (per channel pair)	Sonically clean audio limiter
Excessive internal temperature (per channel pair)	DC offset protection
Mains voltage within acceptable limits	Internally stored information
Output current within limits (each channel)	Log of temperature over time
Driver impedance within limits (each channel)	Log of protection gain reduction over time
Power throughput within limits (each channel)	Log of output current over time (each channel)
Switch on mains surge	Power cycle count

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

Physical

Cooling	Vari-speed fans, back to front airflow
Analogue IN and LINK	4x female and 4x male Neutrik™ XLR
Amplifiers output	4x Neutrik Speakon™ NL4 connectors
Mains input	Neutrik 20A Powercon™
USB	Standard USB '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 and humidity	0 to +40°C, (+32 to +105°F) 0 to 80% RH (non-condensing)
Enclosure	Standard 19" 2U (88mm), 360mm (14") deep (from rear panel to front rack support)
Optional accessories	Rear rack support kit
Net Weight	9.5kg (20 Lbs)



For more information about the XiB4 amplifier or Linea's other high-performance audio products, please contact us or your local dealer.

Linea Research Ltd
Units 1 & 2 Aylesford Court
Works Road
Letchworth Garden City
Herts, U.K.
SG6 1LP

Tel: +44(0)1462 893 500
Tel: +1 949 436 4745 (USA Office)
Email: info@linea-research.co.uk
www.linea-research.co.uk

