LYNX pro-audio

CULTURE OF SOUND

PROCESSORS CATALOGUE

LATEST EDITION

PROCESSORS

LUKA AND ARK

LUKA series is the new series of digital signal processors from Lynx Pro Audio. The series are conformed by the LUKA-224, LUKA-226 and LUKA-228, offering 3 different models with an AES3 input and 2 or 4 analog inputs each and with up to 8 outputs.

The **ARK-70** and **ARK-20** are a series of digital processors designed, assembled and manufactured by Lynx Pro Audio offering 7 different models with 2 or 4 inputs each and with up to 8 outputs (analogue or digital and Ethersound optional).

LUKA PROCESSORS

The LUKA series is the new series of digital signal processors from Lynx Pro Audio, offering 3 different models with AES3 input and 2 or 4 analog inputs each and with up to 8 outputs. The series is made up of LUKA-224, LUKA-226 and LUKA-248.

Managed by remote connection via Ethernet or USB through the OCS control platform, the LUKA series offers high performance for processing sound systems in addition to an intuitive control interface, making work easier for the user.

Designed to work with high-performance systems, the new LUKA processors support an input level of up to +24dBu with a dynamic range of 121dB. The AD converter works with a resolution of 32 bit at 48 kHz.

The DSP works with a double precision resolution reaching 64 bits, improving the resolution of the internal processing calculations.

The LUKA series incorporates latest generation FIR linear phase processing systems with up to 1000 taps selectable per output channel, it also offers the user the possibility of processing the phase separately thanks to an advanced phase equalization algorithm. It has an advanced auto-equalization system that allows you to modify the final response from an imported response curve so that it behaves like a predetermined response, such as a flat response or as the user selects. It can even copy the response of a specific speaker, being able to modify both the magnitude and the phase. In addition, the LUKA series incorporates standard processing systems in all its operating modes.

With Double Dynamics in all 3 models, the LUKA series uses an RMS limiter to adjust the reproduction level of the transducers, maintaining the original dynamics while respecting the original transients, achieving a better acoustic result. A Peak Limiter controls the movement of the speaker, protecting it from damage while reducing distortion caused by over-excursion.

There is an input matrix with 3 operating modes, simple, basic and advanced routing, the latter having being able to act as a mixer.

All inputs have a priority backup system offering the user the programming of different options for different applications.

There is a storage capacity for presets (snapshot, user memories and system presets) with a capacity of up to 999 presets.

LUKA PROCESSORS

LUKA series is the new series of digital signal processors from Lynx Pro Audio. The series are conformed by the LUKA-224, LUKA-226 and LUKA-248.

The LUKA series are the latest in the series of digital processors designed, assembled and manufactured by Lynx Pro Audio offering 3 different models with a AES3 input and 2 or 4 analog inputs each and with up to 8 outputs.

General	
Power supply	85-240 V ~ 40-400 Hz. IEC connector. (Switching power supply, wide range)
Consumption	20 W
Operating temperature	-5º to 60º C (23º to 140º F).
Storage temperature	-60º to 75º C (-76º to 167º F).
Humidity	Max. 90% non-condensing.
Dimensions	483 x 45 x 200 mm
Weight	3 Kg
Communication	UBS and Ethernet
Input	
Impedance	2 or 4 analogic + digital AES3 2 channel
Connector	10 K Ohm Balanced (5 K Ohm unbalanced)
AD converter	Balanced XLR (pin 2 +)
Dynamic Range	32 bit-768 KHz Sigma-Delta, 512x Oversampling
Max. level	121 dB
Digital AES3	+24 dBu 2 channel up to 24 bits 192 KHz
Audio	Frequency range
Frequency range	10 Hz - 24 KHz
DSP process	Internal resolution with 64 bit double precision (48 KHz)
Converters	32 bit resolution
Propagation Delay	1.17 miliseconds
Input Matrix	Input Routing matrix Analog/AES3. Configurable backup inputs.
Crossover	Linkwitz Riley with 12, 24, 48 dB/oct. Butterworth and Bessel with 6, 12, 18, 24, 30, 36, 42 and 48 dB/oct.
RMS Limiter- Compressor	1 per output.
Thershold	In Watts
Compression Ratio	1:1 to 1:10 (1: infinite with limiter).
Power indication	Shows the maximum power applied to the speaker.
Peak Limiter	1 per output
Threshold	In Volts
Peak Indication	Shows the maximum peak Voltage applied to the speaker fo the selected threshold.

Front Panel	
Display	IPS 320 x 170 mm colour + joystick encoder + up to 12 buttons for Edition and Mute, with light indications.
Level meter	Input: LED signal + Over Limit. Output: LED signal + Compression.
Latency	1.17 ms
Output	4 / 6 / 8
Impedance	200 K Ohm Balanced (100 K Ohm unbalanced)
Connector	Balanced XLR (pin 2 +)
DA converter	32 bit-768 KHz
Dynamic Range	120 dB
Max. level	+24 dBu (balanced)
Equalisation	High-Pass1 + 10 Parametric2
User EQ:	High-Pass / Low-Pass1 + 10 Parametric2
Mode EQ:	High-Pass / Low-Pass1 + 12 Parametric2 + FIR custom (vary Magnitude and Phase and latency). Taps File (import external FIR) up to 1000 taps.
Out EQ:	
PEQ Type filters 2	Parametric, Shelving High, Shelving Low, Low-Pass, High-Pass, Low-Pass Q variable, High-Pass Q variable, BandPass, Reject Band, AllPass order 1, AllPass order 2.
Delay	Input / output: up to 206 ms (70 m)
Other functions	Control by OCS software: -Atmospheric compensation - Copy / paste function. - Speaker data import from main audio measurement systems. - Export & Import EQ files, etc. - Control groups - Smaart Link

ARK PROCESSORS

Digital processors designed, assembled and manufactured by Lynx Pro Audio to be easily configured providing optimum sound and results in both fixed installation and touring. Digital processors offering 7 different models with 2 or 4 inputs each and with up to 8 outputs (analogue or digital and Ethersound optional).

Double Dynamics (RMS and Peak) are standard in all ARK-20 models. These double dynamics lower levels of distortion and provide protection for all the speaker components and internal electronics.

With 0.67ms fixed latency the ARK-70 is one of the lowest latency processors available. All ARK units deliver a wide dynamic range of 120 dB, high performance Cirrus Logic AD & DA 24 bit converters running at 96 KHz.

Each input has up to 29 filters of Parametric EQ which can be switched to Graphic EQ. Each output also has Parametric EQ which can be chosen between adaptable or constant Q, All Pass, Band Pass, Notch, HP Q, LP Q or High and low Shelvs providing flexibility. Moreover, crossover filters with high and low cuts of Linkwitz Riley, Bessel, Butterworth up to 48 dB/oct slopes in 6 dB steps are available.

ARK software has been designed for fast user access to make each processing zone simpler for the user. The Compare function option enables the user to listen to the difference between 2 complete set ups in real time with no fade-ins or fade-outs.

As well as being able to import measurement curves from the principal systems (SMAART LIVE, CLIO, SAT Live, etc), they can also be seen directly in the final frequency response window showing the effects of the process applied. All ARK processors can be configured and monitored in real time by USB or ETHERNET.

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The ARK-70 offer atmospheric compensation – essential when working outdoors where temperature and humidity varies considerably between night and day causing noticeable loss in high frequency, especially at long distances. Each output can be configured separately depending on the throw required from each cabinet.

Other features include polarity, gain and delay on ins and outs, routing of any input to any output and a signal generator with sine and noise (pink or white).

ARK PROCESSORS

	ARK-70	ARK-20
PEQ IN filters (per way)	29 GEQ or PEQ	29 GEQ
PEQ OUT filters (per way)	9	9
Crossover	Up to 48 dB/ oct	
Input Delay (meters)	70	20
Output Delay (meters)	7	
Peak limiter (per output) Atmospheric compensation	Yes Yes	- -
Noise Gate	Yes	Yes
Gain	Yes	Yes
Phase inversion	Yes	Yes
Ethernet	Yes	Optional
USB	Yes	Yes
Security options	Global Password, 4 Security Levels, Restricted zones per Preset	
Export & Import EQ Files	Yes	Yes
Digital AES/EBU	Optional	-
Dynamic Range AD/DA	120 dB	
Latency	0.67 ms	
DSP internal process	56 bit	
Display LCD	24 x 2 characters	
Encoders	3	1 with push botton
Navigation buttons	5	-
Dimesions W x H x D (mm) W x H x D (inches)	482 x 45 x 226 18.9 x 1.7 x 8.8	
Weight	3 Kg / 6.6 lbs	


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www.lynxproaudio.com