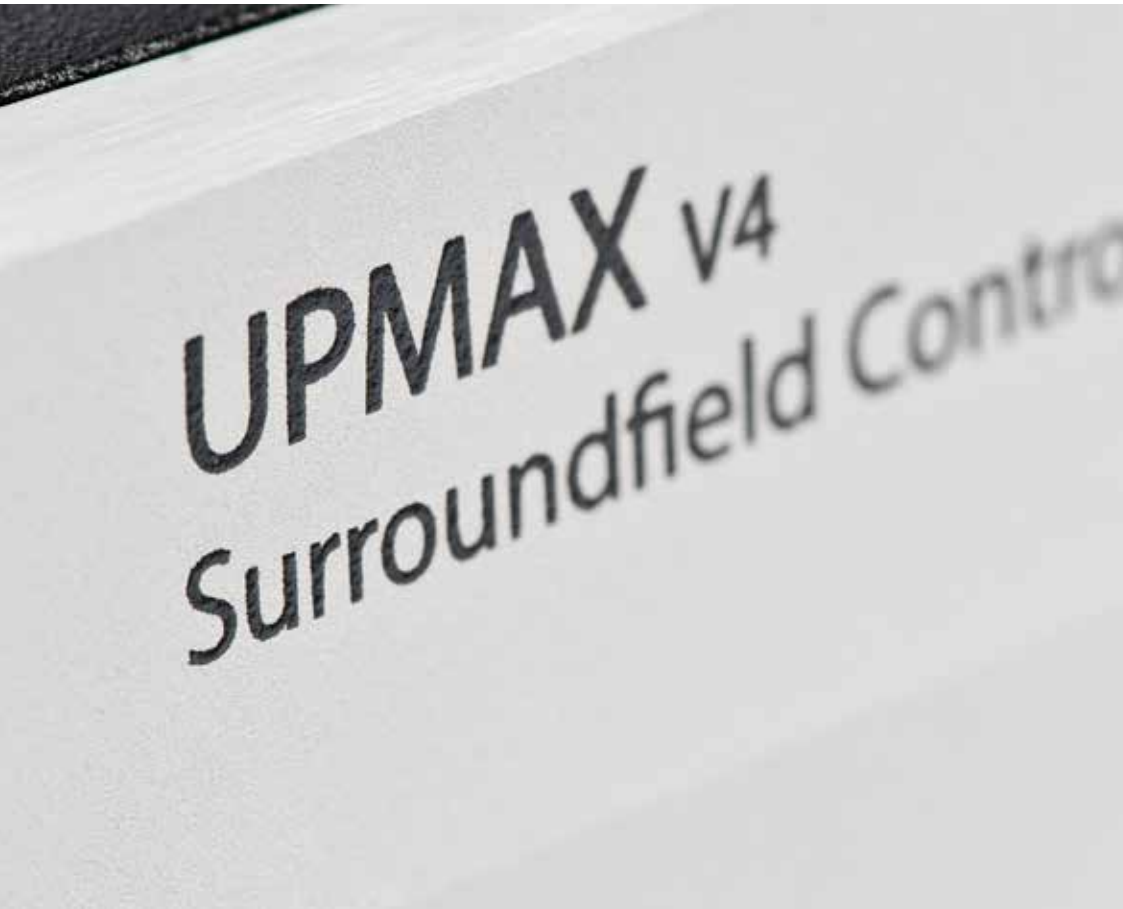




Industry Standard Downmix Compatible Upmixing

UPMAX™ v4
Surroundfield Controller



UPMAX® v4

Drawing upon the success of its predecessors, the UPMAX v4 is able to produce engaging 5.1-channel audio from two and three-channel sources with ease.

The UPMAX v4 seamlessly transitions between discrete and upmix by combining the renowned UPMAX algorithm with AutoMAX-II™ auto detection.

The UPMAX v4 is a powerhouse unit, perfect for production facilities and OB trucks alike.



UPMAX v4 features:

- Industry standard UPMAX algorithm
- Fully downmix compatible
- Upmixes stereo, dual mono, and 3-channel inputs to engaging 5.1 channels, automatic bypass of 5.1 channel content
- ITU BS.1770-3 loudness meter
- Cost effective and reliable
- Extremely low latency
- AES and HD/SD-SDI I/O
- LoRo/LtRt encoder
- Full-time 5.1 and stereo outputs
- 8-channel +4dBu analog monitor outputs with remote volume/mute/ref inputs
- Automatic, Manual, GPI, or metadata control
- Dual power supplies
- Optional Remote Control

UPMAX v4



Based on the original UPMAX 2251, the UPMAX v4 offers the most stable and trusted algorithm in use today for both production and unattended upmixing.

The output is completely downmix compatible and the resulting downmix is nearly indistinguishable from the original two channel input.

The upmixed "Surroundfield" can be infinitely adjusted via the Center Channel Width control and the Surround Depth control. This allows programming ranging from simple stereo to LtRt to be appropriately reproduced using a 5.1-channel playback system.

An optional bass enhancement signal for the LFE channel is derived from the Left, Center, and Right channels during upmixing and allows quick creation of a subwoofer channel without compromising the downmix.

Loudness measurement (ITU-R BS.1770-3) of the output audio is included to ensure output levels are properly adjusted to comply with loudness regulations around the world.

Factory presets are included for typical applications such as music and commercials. Further adjustment is simple and new results can be stored as user-defined presets.



UPMAX v4 includes a utility encoder which creates a two-channel signal (LoRo or LtRt) from a 5.1-channel source. This multichannel source can be the upmixed signal for QA and monitoring purposes, or it can be independent inputs applied to the unit for simultaneous upmixing and downmixing of various sources.

UPMAX v4 is rugged and perfect for remote OB trucks, post production facilities, network operation centers, local station production, virtually anywhere upmixing is used.

Upmixing can be controlled via the front panel, GPI inputs, or metadata from serial or VANC (SDI) sources. Seamless bypass of 5.1 channel input signals is accomplished automatically via the AutoMAX-II algorithm.

A bright OLED display, and a rotary encoder/joystick provide straightforward menu navigation and function adjustment. Dual, redundant, auto-ranging power supplies are standard to allow for world-wide operation.

Bypass relays are provided for trouble-free operation in transmission critical environments.

UPMAX v4 Specifications:

Audio Processing:

Linear Acoustic UPMAX® with AutoMAX-II™

Latency:

4.6 msec (SRC bypass), 7 msec (SRC On)

AES I/O:

48kHz, 24-bit; Signal levels per SMPTE 276M/AES-31D-2001; All connectors are 75-Ohm BNC female with internal 75-Ohm termination

HD/SD-SDI:

Auto Sensing Input and Output De-embed up to 16 channels from applied SDI signal, process and/or re-embed up to 16 channels. Signal levels per SMPTE 292M/259M. Supports SMPTE 2020 A and B VANC metadata. Up to 1080i/60/59.94/50Hz supported.

Serial/Metadata Input:

9-pin female D connector, 115 kbps, pinout per SMPTE 207M (RS-422/485)/RDD6

Parallel GPI/O Control Port:

9-pin female D connector, 0-5V TTL levels to control upmixing, preset recall, and other select functions

Remote Control Port:

9-pin female D connector, 0-5V TTL levels to control volume, mute, and return to reference level functions

Front Panel Controls and Indicators:

Rotary encoder/joystick plus bright OLED display. Dedicated Headphone output with volume control

Power Requirements:

Dual, redundant 100-264 VAC, 50/60Hz, auto-sensing, 35W maximum

Dimensions and Weight:

One rack space high (1 RU) - 1.75"H x 19"W x 11.5"D (44 x 483 x 317 mm)

Net weight: 6 lbs (2.72 kg), approximate. Shipping weight: 8 lbs (3.62 kg), approximate.

Environmental:

Convection cooled. Operating: 0 to 50 degrees C, non-operating -20 to 70 degrees C.

Regulatory North America:

Tested to comply with the limits for a class A digital device pursuant to Part 15 of the FCC rules (CFR). Power supplies are UL tested and approved.

Europe:

Tested to comply with the requirements of harmonised Low Voltage Directive 2006/95/EC and EMC Directive 2004/108/EC as indicated by the affixed CE marking; RoHS and WEEE compliant.

Warranty:

Standard Linear Acoustic 2-year Warranty

Available Options:

Remote volume and GPI/O control (see below)

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UPMAX v4 Remote Control Option

- Large volume control
- Mute and return to Ref controls with LEDs
- Four function keys (F1-F4) with LEDs for GPI/O
- 7m (21') cable included



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