

NeuStar Air 2

Low Bitrate Digital Radio
Loudness Processor



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Overview DaySequerra's NeuStar Air 2 digital radio processor is a fully featured, two-stereo-stream AES codec-specific audio processor designed to improve the audio performance of low bit rate HD Radio multicasts, DAB+, DRM and HE-AAC v2 internet radio channels with particular focus on stereo at 24 kbps. The NeuStar Air 2 features an industry-proven loudness measurement algorithm and newly developed psychoacoustic processing engine with look-ahead gain correction to make audio level adjustments that are transparent to listener.

DaySequerra's proprietary NeuStar codec preprocessing engine has been specially tuned for operation at 24 kbps, 32 kbps, 48 kbps, 64 kbps, and 96 kbps bit rates to reduce artifacts from lossy codecs and low bit-rate transmission.

The NeuStar Air 2 also features 10 presets with a parametric equalizer and adjustable dynamic range contours, an auto sensing EAS/CAP input with auto-daypart that automatically changes operating profiles via the rear-panel GPIO.

Key Features

- Two independent stereo processing chains – perfect for multicasting
- Compatible with digital radio codecs used in HD Radio, DAB+ and DRM+ systems
- Perceptual loudness control delivers powerful, dense program audio without annoying processing artifacts
- Image packing and auto balancing corrects L-R codec leakage
- 10 Presets with 12 band parametric equalizer and adjustable dynamic range contours
- Industry-proven Eclipse ITU-R BS.1770 Loudness Measure
- Auto-Daypart automatically changes operating profiles via rear panel GPIO
- Auto-sensing EAS/CAP input

DaySequerra's NeuStar Air 2 is an easy-to-operate 1RU unit with bright, accurate bargraph metering, rear-panel GPIO and an Ethernet web server compatible with all popular browsers for status monitoring, logging and settings/preset management and field software updates. The NeuStar Air 2 delivers pristine, powerful sound and has all the tools broadcasters need to get their station's "signature sound" across their multicasts while saving time, money and space.

TECHNICAL SPECIFICATIONS

INPUTS

2 AES-3 PCM inputs for independent 2.0 stereo on 110-ohm transformer-isolated on XLR connectors
1 AES-3 PCM input for EAS/CAP on 110-ohm transformer-isolated on XLR connector

OUTPUTS

2 AES-3 PCM outputs for independent 2.0 stereo on 110-ohm transformer-isolated on XLR connector

LOUDNESS MEASUREMENT AND CORRECTION

Eclipse Loudness Measurement

SAMPLE RATE

32kHz to 96kHz

LATENCY

<6ms Eclipse Processing, plus <6ms for Hardware Interface

GPIO

Opto-Isolated DB-9 female connector, 0-5VDC TTL

ETHERNET WEB SERVER

10/100-BASE-T for remote monitoring and logging compatible with all popular browsers

DIMENSIONS AND WEIGHT

1 RU, 19" [482mm] W x 8" [203mm] L x 1.75" [44mm] H; 7 lbs. [3.2kg]

*Email Server not compatible with SSL encryption
Features and specifications are subject to change without notice.

ENVIRONMENTAL

Convection cooled; Operating: 0 to 60 degrees C

REGULATORY

North America: Designed to comply with FCC Class A, Part 15
Europe: LV Directive 73/23/EEC and EMC Directive 89/336/EEC; CE Mark [EN 55022 Class A, EN55024]
RoHS and WEEE compliant

POWER SUPPLY

Auto-sensing 100-240V, 50-60Hz
EMI suppressed male IEC320 connector

WARRANTY

Three years, limited parts and labor

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