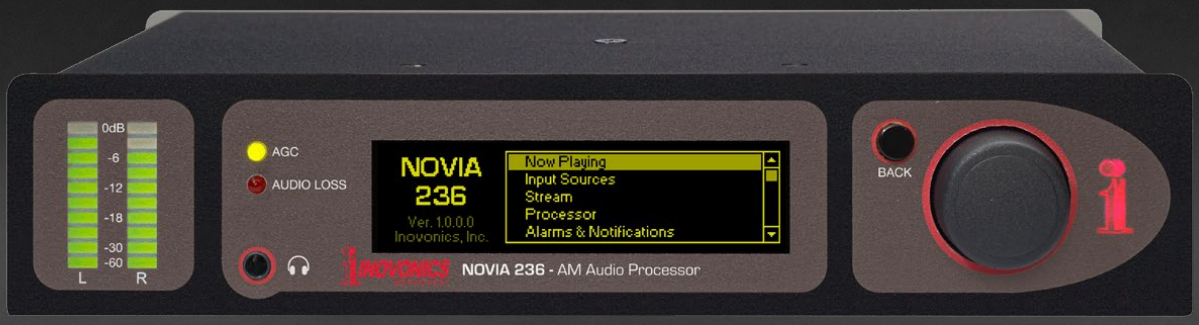
236

AM Audio Processor



The Inovonics NOVIA series offers a compact, economical solution to a host of broadcast audio processing requirements.

NOVIA 236 is expressly tailored for medium-wave monaural AM broadcasting. It combines the functions of 'gain-riding' AGC, 'syllabic' consistency leveling, parametric EQ, multiband compression with selectable crossovers, selectable 'brick wall' bandwidth restriction and a final no-splatter peak controller that supports asymmetrical carrier modulation.

In addition to quick and easy front-panel setup, the IP interface allows 2-way program streaming, plus total remote control of the NOVIA 236 using any PC or mobile device. SNMP operation is supported.

Program audio failure alarms trigger local tally closures and instantly dispatch SMS/email notifications to selected personnel. Alarms are also logged for later analysis.

Setup and operation are simplified with 10 factory and 10 user-defined processing presets. An internal scheduler is included for dayparting.

RoHS

3year WARRANTY

CE

Made in USA

(optional rack adapter)

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236 AM AUDIO PROCESSOR

FEATURE HIGHLIGHTS

- All-digital, DSP-based design; internal scheduler, instant boot, non-volatile preset memories
- Accepts analog, AES-digital and streaming program inputs; streams processed audio for remote monitoring and program verification
- Failover feature may be programmed to switch to alternate sources when audio is lost
- Assignable GPIOs plus full IP connectivity for remote control, SNMP and streaming I/O
- Gated and 'windowed' AGC plus 'syllabic' leveling for program consistency; parametric EQ, adjustable bass 'punch' enhancement and 3-band compression with selectable crossovers
- Tight, no-clipping 'splatterless' program peak control with adjustable asymmetry
- Programmable cutoff frequencies conform to US NRSC and other standards worldwide
- A wide range of factory processing presets plus programmable custom user-presets

SPECIFICATIONS

Frequency Response: (processing bypassed)
50Hz - 20kHz, ±0.25dB

Output Cutoff Response:
Nominal Frequencies: menu-selectable 4kHz, 5kHz, 6kHz, 7kHz, 8kHz, 9kHz, 10kHz (US NRSC), 12kHz, 15kHz
Filter Characteristic: 143-coefficient FIR filter with phase and overshoot compensation; ±0.5dB, 50Hz to 0.95x nominal cutoff frequency; approx. –15dB at cutoff; > –50dB at ≥1.04x nominal

Pre-Emphasis:
Selectable flat, or 'truncated' US NRSC pre-emphasis curve scaled to the cutoff frequency

Distortion: (processing bypassed)
Analog I/O: <0.02% THD (ref: +24dBu I/O)AES
Digital I/O: <0.002% THD (ref: 0dBFS I/O)

Signal-to-Noise: (processing bypassed)
Analog I/O: >105dB (ref: +24dBu I/O)
AES Digital I/O: >120dB (ref: 0dBFS I/O)

Program Line Inputs:
Analog: active-balanced (XLR) accepts line levels from –15dBu to +15dBu; +24dBu clipping
AES Digital: (XLR) accepts line levels between -30dBFS and 0dBFS at sampling rates from 32kHz to 96kHz
IP Streaming: accepts all Icecast/SHOUTcast MP3, Ogg and AAC streams

Program Line Outputs:
Analog: active-balanced (XLR) delivers–12dBu to +15dBu for 100% symmetrical modulation; +24dBu clipping, 200Ω source
AES Digital: (XLR) delivers -30dBFS to 0dBFS for 100% symmetrical modulation; selectable sampling rates of 32kHz, 44.1kHz, 48kHz, 96kHz

Positive Peak Enhancement:
Intrinsic asymmetrical, positive-going peaks may be selectively limited in 1% steps from 100% to +130%

Program Signal Latency (Delay):
Approx. 3.75ms

Network Port:
TCP/IP network connection (RJ45) for remote setup/operation and in/out audio streaming; full support for SNMP control

GPIO Ports:
3 GPI, 3 GPO w/ assignable functions and logic polarity

Headphone Jack:
Front-panel (TRS) 3.5mm

Internal Test Tone Generator:
20Hz-20kHz; variable frequency and level

Alarms:
Local (GPIO) closures, browser interface, SNMP and SMS/email alarms for analog, digital and stream audio loss; maintains daily, weekly, monthly logs

Scheduler:
Dayparting is simplified with an onboard real-time clock and preset-selection programming

Audio Processing:
AGC: ±15dB capture range; gated with dual-rate 'windowed' operation
Leveling: variable 'syllabic' 2:1 compression
EQ: 4-section parametric
Bass 'Punch': variable bass enhancement
Compression: 3-bands with selectable crossovers, variable master and individual band drive controls, plus r.m.s. / peak 'density' adjustment
Final Peak Control: no-clip feed-forward asymmetrical wideband limiting with pre-emphasis protection limiting

Power Requirement:
12VDC at 240mA (2.1mm x 5.5mm coaxial); inline switchmode power supply included

Mounting Options:
An optional rack adapter mounts one or two NOVIA or other Inovonics half-rack units in a standard 19-inch, 1U rack space

Size and Weight:
1.6"H x 8"W x 6"D; 5 lbs shipping weight