



Inovonics 235

A full-function AM Audio Processor

A ONE-BOX SOLUTION FOR MEDIUM-WAVE AND SHORT-WAVE MONO-AM

When NRSC guidelines were developed in the U.S. for domestic AM broadcasting in the 1980s, Inovonics quickly met the technical challenge with the introduction of our imminently successful Model 222 “add-on” processor. That low-cost, no-frills product aided thousands of broadcasters in complying with the new bandwidth rules.

Today Inovonics offers the AM broadcaster a refined and comprehensive processing system. Our expanded Model 235 incorporates AGC, Compression, Variable Equalization and Asymmetrical Peak Control in addition to the mandated pre-emphasis and low-pass functions. We’ve also included the ability to address all processing functions by computer from a remote location.



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Features & Specifications

- Fully NRSC-compliant and AMAX-certified. Easy to set up and use.
- Slow, "gain-riding" Gated-AGC erases long-term input level variations.
- 3-band Compressor/Equalizer optimizes program spectral density.
- Sophisticated Peak Controller provides adjustable, program-controlled clipping depth to maximize carrier modulation.
- Available with alternative cutoff frequencies for overseas medium-wave and international short-wave applications.
- RS-232 bus allows full remote control by computer or modem if desired.

FREQUENCY RESPONSE

± 1 dB, 50Hz–9.7kHz* (taken through NRSC de-emphasis network and with processor EQUALIZATION set "flat").
* US NRSC (10kHz) version. Alternative cutoff frequencies for CCIR channel spacings and for various short-wave protocols are optionally available at slight additional cost.

DISTORTION

Typically under 1% THD at any PROGRAM DENSITY setting, and at PEAK PROCESSING settings which maintain negligible clipping depth.

NOISE

Better than 60dB below full carrier modulation (assuming NRSC de-emphasis).



Rear view

FIXED PRE-EMPHASIS

The US version follows the "truncated" 75 μ s curve specified by the NRSC transmission standard. Alternative versions employ pre-emphasis appropriate to the cutoff frequency.

VARIABLE EQUALIZATION

HF: –3dB, 0dB (flat), +3dB, +6dB, MAX. (These figures are independent of, and in addition to, the NRSC or alternative fixed pre-emphasis.
LF: –9dB, –6dB, –3dB, 0dB (flat), +3dB.

PROCESSING VARIABLES

PROGRAM DENSITY controls "blending" within the triband compression section, as well as the compressor release characteristic. Eight incremental settings range from a slow, single-band function to fast, fully-independent 3-band operation.

PEAK PROCESSING programs the action and inter-relation of the peak limiter and clipper circuits in eight MIN to MAX increments.

INPUT

Active-balanced, bridging; accepts nominal program line levels between –15dBu and +15dBu.

OUTPUT

Active-balanced, 200-ohm resistive source; delivers 0dBm to +15dBm into 600 ohms.

OUTPUT ASYMMETRY

Positive peak amplitude is continuously variable between +100% and +130%.

REMOTE CONTROL PROVISION

An RS-232 serial data port (DB9 connector) allows all processing presets to be programmed by an IBM-compatible computer, directly or via modem. Supplied software runs under Microsoft Windows® 95/98.

POWER REQUIREMENT

105–130VAC or 210–255VAC, 50/60Hz; 15W

SIZE AND WEIGHT

1 $\frac{3}{4}$ "H x 19"W x 10"D (1U); 10 lbs.