

Inovonics 261 Rev. 2

**An All-Digital Stereo "Utility Processor"
For Production or FM-Airchain Use**

**GATED AGC, DYNAMIC
RANGE COMPRESSION,
TIGHT PEAK CONTROL AND
PRE-EMPHASIS-PROTECTION**

Inovonics' DSP-based 261 affords the broadcaster a simple, economical and unobtrusive means of normalizing and controlling audio levels in an all-digital or mixed-signal plant.

Revision 2 firmware makes the 261 a comprehensive processing system. It combines gated, gain-riding AGC, program dynamic range compression, final wideband peak limiting and an independent high-frequency 'pre-emphasis-protection' limiter.

Intuitive menu-driven setup configures the 261 to provide any basic processing function separately, or can combine all options to give total program audio control. The 261 is ideal for link and uplink protection, LPFM and similar applications.



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Features & Specifications

- An all-digital design using proven DSP technology with 32-bit architecture.
- Fast menu-driven setup with an easy-to-read LCD display. A minimalist approach to user controls assures positive, repeatable presets.
- Accepts both analog and digital program inputs and provides both analog and digital outputs simultaneously.
- 'Look-ahead' final limiting eliminates the need for flat-topped clipping of program audio to define an absolute ceiling value.
- Rear-panel tallies enable remote alarm indication.

FREQUENCY RESPONSE

±0.25dB, 20Hz-20kHz at 44.1kHz and 48kHz sampling rates.
±0.25dB, 20Hz-15kHz at 32kHz sampling rate.

NOISE

Digital I/O: Better than 120dB below limiter ceiling, 20Hz-20kHz.

Analog I/O: Better than 75dB below limiter ceiling, 20Hz-20kHz.

DISTORTION

<0.01%THD below limiting threshold. Limiter self-modulation distortion is an inverse function of frequency; <0.1%THD at 100Hz, <0.5%THD at 50Hz.

CROSSTALK

Digital I/O: Better than 120dB between channels.

Analog I/O: Better than 65dB between channels.

PROGRAM LINE INPUTS

Digital: AES/EBU (XLR) input accepts 16-, 20-, or 24-bit inputs at sampling rates of 32kHz, 44.1kHz and 48kHz.

Analog: Active-balanced, bridging (XLR) inputs accept nominal program line levels between -15dBu and +15dBu.

Input Gain: Menu-controlled over a 20dB range.



Rear view

PROGRAM OUTPUTS

Digital: The AES/EBU (XLR) output syncs to the rate of the input program when the digital input is selected, or may be set to a 32kHz, 44.1kHz or 48kHz output rate when analog program inputs are used.

Analog: Active-balanced (XLR) outputs may be adjusted by menu selection for a nominal line level between -10dBm and +10dBm.

Output Level: Menu-adjustable over a 20dB range.

Latency: 4.5ms.

AGC CAPTURE RANGE

30dB nominal capture range (±15dB) with menu-programmed control over maximum (positive) AGC gain from +15dB to 0dB. AGC has selectable 'slow' and 'fast' correction rates.

DYNAMIC COMPRESSION

Compression of program dynamics is afforded by a time-domain "platform" function associated with the broadband peak controller. Additional circuit gain is imparted when this function is enabled, increasing the average value of the program by as much as 6dB, depending on the average/peak ratio of the source material.

BROADBAND PEAK CONTROL

The look-ahead limiter has program-controlled attack and release timing that has been optimized for unobtrusive operation. Program peaks are held at an absolute 'ceiling' value without the need for flat-topped clipping

HIGH FREQUENCY LIMITER

An independent HF limiter selectively controls the pre-emphasized portion of the 50µs or 75µs FM transmission characteristic. In addition to menu selection of the appropriate curve, either a normal 'flat' output or a pre-emphasized output may be selected.

ALARMS

A front-panel flashing display and open-collector NPN transistor 'tally' outputs signal INPUT OVERLOAD, AGC OUT-OF-LIMITS or PROGRAM AUDIO LOSS conditions.

POWER REQUIREMENT

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

SIZE AND SHIPPING WEIGHT

1³/₄"H x 19"W x 8"D (1U); 8 lbs.