

260 STEREO BROADCAST PROCESSOR

GENERAL:

Inovonics' 260 is a stereo audio processor intended for FM and TV broadcast service. It is a multi-function unit which incorporates the three processing functions of gated "gain-riding" A.G.C., gated Average Level Compression and split-spectrum Peak Control. These three functions comprise a complete audio processing chain, but may be accessed independently with remote defeat provisions.

The 260 is ideal for the more basic broadcasting situations which, nonetheless, require ample and consistent transmitter modulation. User adjustments have been reduced to only those which are essential to operation. This makes the unit exceptionally easy to install and use.

USES:

- **FM and TV-Stereo broadcasting. Within budgetary reach of LPTV and Educational-FM users**
- **STL and satellite uplink overmodulation protection**
- **Slow speed magnetic recording and mastering**

FEATURES:

- **Gated A.G.C. and Compression. Program-controlled "floating platform" Limiter release characteristic**
- **Unique Level Alarm warns of "dead air" and out-of-limits operation**
- **Feedforward PWM gain control for smooth, colorless operation**
- **Easy Setup and maintenance. No "subjective" adjustments, no internal calibration**
- **Uses off-the-shelf components**



Inovonics, Inc.

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SPECIFICATIONS:

GENERAL:

Frequency Response: $\pm 0.5\text{dB}$, 10Hz - 15kHz

Noise: $> 75\text{dB}$ below 100% modulation, 10Hz - 15kHz.

Distortion: (with full A.G.C. correction and 10dB Dynamic Reduction): $< 0.5\%$, 20Hz - 15kHz;
 $< 0.25\%$, 50Hz - 10kHz.

Crosstalk: Better than 60dB, 10Hz - 10kHz.

Input: (LEFT and RIGHT) Active-balanced, bridging; accept nominal line levels between -20 and +10dBmV.

Output: (LEFT AND RIGHT) Active-balanced, 600-ohm source impedance; deliver 0 to +15dBm to 600-ohm loads.

Power Requirement: 105 - 130VAC or 205 - 255VAC, 50/60Hz; 20W.

Size and Weight: 1.75" x 19" x 8" (1U); 12 lbs.

GATE CIRCUIT:

Gating inhibits A.G.C. "hunting" and Average Compression release during brief pauses in the input program. Extended program loss slowly returns circuit gains to resting values. Fixed at -25dB relative to A.G.C. corrected program level.

Frequency Weighting: -3dB at 300Hz and 3kHz.

Level Alarm: Front-panel indicator flashes when A.G.C. correction exceeds $\pm 9\text{dB}$ or when "dead air" (Gate closed) exceeds 10 seconds.

A.G.C.:

Slow A.G.C. erases long-term program level variations for more consistent Compression and Limiting action, A.G.C. may be independently defeated by grounding a rear panel terminal.

Correction Range: $\pm 12\text{dB}$.

Correction Rate: Approx. 0.5dB/second.

Program Dynamics: Quasi-peak; 10ms, UK/EBU "PPM" integration.

DYNAMIC REDUCTION:

Compression and Limiting share a common split-spectrum gain control circuit, but are separated by a time domain "floating platform" attack/release characteristic. Compression (only) or total Dynamic Reduction may be independently defeated by grounding rear-panel terminals.

Spectrum Division: Independent high frequency gain reduction follows 75 μs pre-emphasis characteristic. 25 μs and 50 μs optionally available.

Compressor Attack: 5ms/dB

Compressor Release: 125ms/dB

Limiter Attack: $< 1\mu\text{s}$

Limiter Release: 1ms/dB to Compressor "platform" value, 10ms/dB when Compressor is defeated.

Ceiling Clipper: Active only on Limiter overshoots which would exceed 100% modulation. Conforms to pre-emphasis characteristic.



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