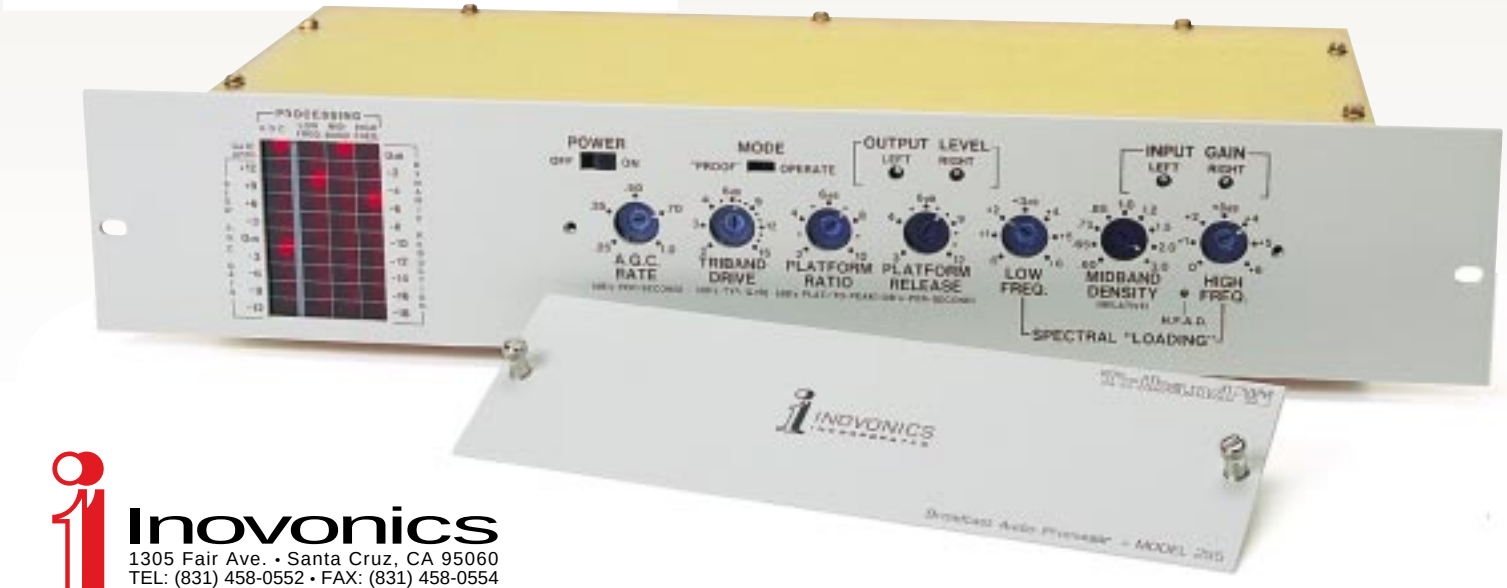
Inovonics 255

Assertive tri-band processing for FM

A SURPRISINGLY AGGRESSIVE 3-BAND PROCESSOR FOR CONTEMPORARY MUSIC FORMATS

Inovonics' Model 255 is a multifunction processor combining a slow, "gain-riding" Gated AGC with a 3-band compressor/limiter of unusual flexibility. Gain control utilizes a unique implementation of pulse-width modulation (PWM) in a feedforward, "soft-knee" circuit configuration.

The 255 has principal utility with contemporary music FM broadcasting. During its development, particular attention was directed to compatibility of the 255 with the wide range and dynamics of modern music from digital program sources.



Inovonics
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Features & Specifications

• Gated AGC has peak-weighted response and a variable correction rate.

• The gated 3-band Compressor/Limiter includes a variable "platform" release characteristic and a unique program-adaptive clipping function.

• Split-spectrum peak control may be set for 75- or 50-microsecond transmission pre-emphasis protection.

• Feedforward PWM gain control promotes smooth, colorless operation with any degree of processing.

• User controls are calibrated in meaningful terms for convenient setup and easy return to previous presets.

FREQUENCY RESPONSE
±0.5dB, 20Hz–20kHz.

NOISE
Better than 80dB below 100% modulation, 10Hz–20kHz.

DISTORTION
(With full AGC correction and "subjective" adjustments centered): <0.25% THD, 1kHz–20kHz; <0.5% THD, 250Hz–20kHz; <1% THD, 20Hz–20kHz.

CROSSTALK
Better than 65dB, 10Hz–20kHz.

INPUTS
Active-balanced, bridging; accept nominal line levels between –20dBu and +10dBu.

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

Rear view

GATED AGC
Gating inhibits AGC "hunting" and compression release during brief pauses in the program. The gating threshold is frequency-weighted and fixed at –25dB, relative to the corrected program level. AGC corrects input level variations over a ±12dB range. AGC response to program content is quasi-peak, conforming to the 10ms UK/EBU "PPM" characteristic. Conversely, the slow correction rate is variable between 0.25 and 1.0 dB-per-second.

3-BAND COMPRESSOR/LIMITER
Compression and Limiting share common gain control circuits in each of the three frequency bands. The two functions are separated by a time-domain, "floating platform" attack/release characteristic. The spectrum is divided with a LOW/MID crossover at 200Hz (795µs), and a MID/HIGH crossover at 2120Hz (75µs) or 3180Hz (50µs). A high frequency "activity detector" monitors dynamics at the upper program frequencies to determine an optimum limiting/clipping ratio.

POWER REQUIREMENT
105–130VAC or 210–255VAC, 50/60Hz; 12W.

SIZE AND WEIGHT
3½"H x 19"W x 7"D (2U); 10 lbs.

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