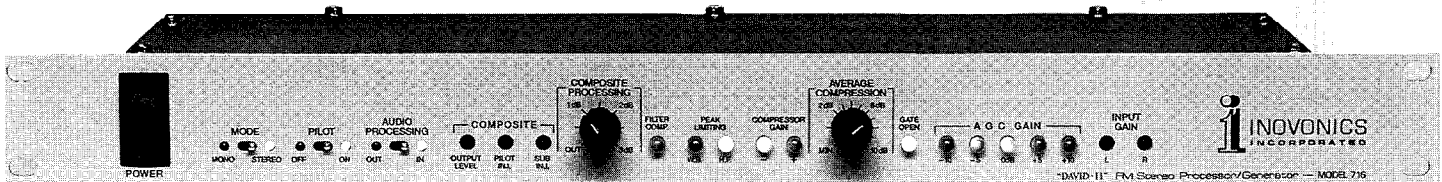


A sensible solution to the FM air-chain dilemma.



A SIMPLE, VERY EFFECTIVE FM-STEREO **PROCESSOR/GENERATOR**

Inovonics introduced the first "DAVID" (as in David vs. Goliath) to meet the more basic needs of the FM broadcaster. In an all-out effort to make this series even more versatile and universally applicable, we have developed this second-generation product: the Model 716, or "DAVID II."

Without compromising product simplicity (the keynote of our "DAVID" design philosophy), the all-important audio pro-

cessing section has been re-engineered to yield the dense, "hot" sound demanded by contemporary music programmers.

Escalating "air-chain battles" in the war for ratings ultimately becomes self-defeating. The real winners in any market will have a solid, clean air sound which supports innovative programming. We invite you to try our latest, very simple "giant killer." "DAVID II" will surprise you.

..The "DAVID II" - by Inovonics



716 Features and Specifications

- **Digital Synthesis** of the Composite Multiplex signal for best separation and stable operation.
- **Feedforward Pulse Width Modulation.** PWM audio processing imparts loudness and fullness to the program signal with negligible artifacts and without sacrificing brilliance.
- **Built-in Composite Processor** maximizes modulation density.
- **Unique "Base-Enhance"** feature optionally suppresses subaudible program components while augmenting legitimate "bottom-end."
- **Internal Combining** for SCA or RDS subcarriers.
- **Very Easy Setup and Use.** "Generic" component parts for servicing ease, worldwide.

- **FREQUENCY RESPONSE:**
±0.5dB, 20Hz-16kHz.
- **STEREO SEPARATION:**
>55dB. 50Hz-15kHz (typically 60.70dB).
- **NOISE:**
Better than 75dB below 100% modulation in baseband and subcarrier. Any "digital" noise components above 54kHz are -70dB or better.
- **DISTORTION:**
<0.5% THD in baseband and subcarrier at 95% modulation with processing engaged.
- **CROSSTALK (M/S or S/M):**
"Nonlinear" crosstalk is better than -50dB, 50Hz-15kHz;
"linear" crosstalk (through processing and filters) is better than -40dB.
- **STEREO PILOT:**
19kHz, ±1Hz; level adjustable between 6% and 12%, relative to 100% modulation. <1% THD in pilot signal.
- **PROGRAM LINE INPUTS (Left and Right):**
Active-balanced, bridging; accept program audio levels between -15dBu and +15dBu.
- **SUBCARRIER INPUT:**
Single-ended (unbalanced) input accommodates SCA or RDS subcarriers at levels between -20dBu and 0dBu for nominal 5-10% injection.
- **PRIMARY LOW-PASS FILTERING:**
7-pole, phase-corrected. active-elliptic with proprietary overshoot compensation. -60dB or better at 19kHz and above.

PRE-EMPHASIS:

Integral with split-spectrum audio processing. May be jumpered for 75µs or 50µs characteristic.

AGC AMPLIFIER:

Gated circuit provides slow correction (0.5dB/sec.) for long-term input level variations. ±10dB capture range is displayed by LED indicators.

COMPRESSOR/LIMITER:

The fast-acting peak limiter has a secondary "platform" time constant to compress dynamic range with average-value weighting. An independent high frequency limiter conforms to (and protects) the pre-emphasis characteristic. LED indicators display broadband and high frequency limiter action and average compressor gain state. Compression is adjustable between a minimal value and 10dB.

COMPOSITE PROCESSING:

A composite clipper acts on the multiplex signal prior to injection of the stereo pilot and any auxiliary subcarriers. Clipping is adjustable between 0dB and 3dB.

COMPOSITE OUTPUT:

Single-ended (unbalanced) with 75-ohm source impedance. Level may be adjusted between 1V p-p and 8V p-p, corresponding to 100% modulation.

- **DIGITAL SYNTHESIS SAMPLING RATE:**
608kHz (16X subcarrier oversampling)

POWER REQUIREMENT:

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

- **SIZE AND SHIPPING WEIGHT:**
1 3/4" H x 19" W x 6" D (1U); 7 lbs.



Rear View



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