

Inovonics 718

“DAVID-III” – Bigger, Bolder, Brighter!

THIRD-GENERATION “DAVID” PROCESSING... THE ‘SIMPLE SOLUTION’ FM AIRCHAIN

Inovonics introduced the first DAVID (as in David vs. Goliath) in 1992 to meet the more basic needs of FM broadcasters. In 1995, an improved DAVID-II brought increased functionality and more competitive performance. This expanded the international reputation of the DAVID series to broadcast markets of all sizes.

The multiband DAVID-III has been designed from the ground up to compete with today’s aggressive processing systems at a fraction of their cost. The Inovonics DAVID family of FM processor/generators has established a benchmark for simplicity and value the world over. The DAVID-III elevates this “giant killer” tradition to a higher, bolder level.



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Features & Specifications

- 3-band feedforward pulse-width-modulation (PWM) processing gives a powerful, well-defined sound and brings a broad range of user control to the audio signature.
- Proprietary PIPP* peak processing and a built-in adjustable composite clipper assure maximum carrier modulation efficiency.
- Digital synthesis of the multiplex baseband signal yields optimum stereo separation and ensures adjustment-free, rock-stable operation.
- The DAVID-III is easy to install and use without the need for external test equipment. Generic, readily available components are used throughout the product to facilitate maintenance anywhere in the world.

FREQUENCY RESPONSE

±0.5dB, 20Hz-15kHz

STEREO SEPARATION

>55dB, 50Hz-15kHz (typically 60-70dB)

NOISE

Better than 70dB below 100% modulation in decoded L/R audio. Individual digital noise components above 54kHz are -70dB or better.

DISTORTION

<0.5%THD in baseband and subcarrier at 95% modulation with PIPP* limiter defeated; <1.5% at any level of modulation with PIPP* limiter engaged.

CROSSTALK (M/S or S/M)

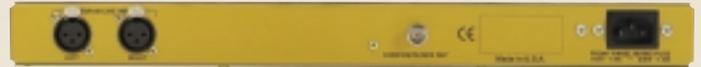
Nonlinear crosstalk is better than -50dB, 50Hz-15kHz. Linear crosstalk (through processing and filters) is better than -40dB.

L/R PROGRAM LINE INPUTS

Active-balanced, bridging XLR inputs accept nominal program line levels between -15dBu and +10dBu.

GATED A.G.C.

±15dB capture range corrects for long-term input level variations.



Rear view

PRE-EMPHASIS

75µs or 50µs selected by internal jumpers.

PROCESSING

3 bands of peak-weighted limiting employ a secondary 'platform' function to furnish average-level compression of program dynamics. Spectrum-subtraction band division has second-order crossovers at 100Hz and 4kHz.

PIPP* LIMITER

(*Polarity Independent Peak Processing) Proprietary circuitry assures full carrier deviation by program audio regardless of signal asymmetry. The limiter may be defeated with a front-panel switch.

LOW-PASS FILTERING

The 7-pole, phase-corrected, active-elliptic LPF includes proprietary overshoot compensation.

COMPOSITE CLIPPER

Baseband clipping may be adjusted between 0dB and 3dB. Clipping is performed prior to pilot injection.

STEREO PILOT

19kHz, ±1Hz. Pilot is adjustable between 6% and 12% relative to 100% modulation.

DIGITAL SYNTHESIS SAMPLING RATE

608kHz (16X subcarrier oversampling)

COMPOSITE OUTPUT

The 75-ohm, unbalanced BNC output is variable between 1V p-p and 10V p-p with reference to 100% carrier modulation.

POWER REQUIREMENTS

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

SIZE AND SHIPPING WEIGHT

1-3/4"H x 19"W x 8"D (1U); 8 lbs.