SmartGen 4
A Dynamic RDS/RBDS Subcarrier Encoder

HIGH PERFORMANCE RADIO DATA SUBCARRIER ENCODER
UECP COMPATIBLE

The SmartGen 4.0 is a full-function RadioData encoder that conforms to European and US standards for FM datacasting. It supports all service IDs and offers simultaneous scrolling-PS and RadioText messaging. The encoder has a full implementation of the UECP protocol and is accessible over the communication ports.

2-way addressability includes a front-panel USB port for fast and easy static register programming of station and format IDs, and for entering default scrolling or static text. In full-dynamic operation, station automation communicates with direct RS-232 serial connection.

Screen-entry Windows® software makes programming the SmartGen 4.0 simple and foolproof. The SmartGen 4.0 can 'parse' scrolling text, automatically breaking phrases into word groups, or can display text with the "Safe-Scrolling" option.

The SmartGen 4.0 use SMT components and multi-layer circuit boards with a large ground plane. This enables us to keep high frequency signal paths very short, and provides inherent shielding. The result is measurably better audio performance than other types of construction.

This combination of high-end technology and advanced functionality makes the SmartGen 4.0 the perfect companion for professional broadcasters.

FEATURES:

- **Full-function dynamic encoder connects to station automation**
- **Transmit song titles, etc. in either 'block' or 'safe scrolling' modes**
- **Includes the TA function for traffic message priority override**
- **Operates with any FM exciter and stereo generator**
- **A dedicated 19kHz sync source is not required, and a failsafe relay bypass is built in**
- **Connects directly to all popular radio automation systems to scroll song titles and advertising**
- **Direct-entry programming software with RS-232 serial and local USB connectivity**

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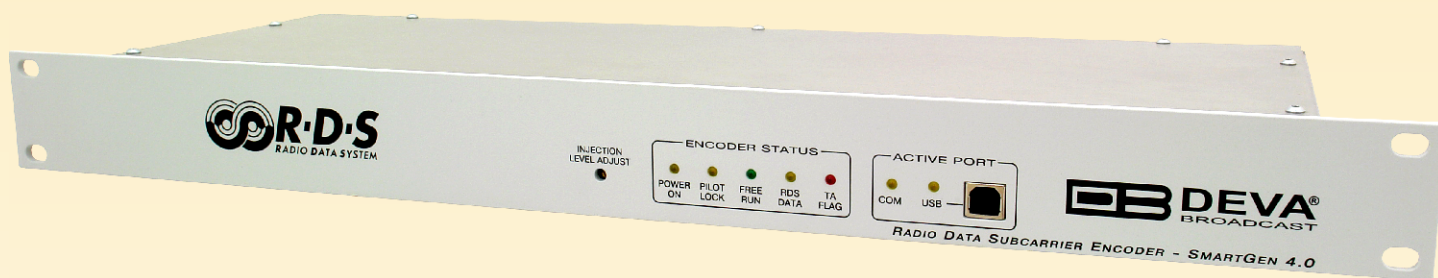
SPECIFICATIONS

Standards Supported

European CENELEC and United States NRSC.

RDS Applications Supported

PI, PS, PTY, TP, TA, RT, AF, DI, M/S, FFG.

Operating Modes

Loop-Through: In loop-through operation, the RDS subcarrier is internally mixed with the MPX input and the combined signal is delivered to the RDS or MPX Output. The encoder has unity gain in the loop-through mode and accepts a maximum level of 6 volts peak-to-peak corresponding to ±75kHz carrier deviation.

Sidechain: In sidechain operation, only the RDS subcarrier appears at the RDS or MPX Output.
The monitored MPX (or TTL sync) is used solely to synchronize the 57kHz RDS subcarrier with the 19kHz stereo pilot.

Pilot or MPX Input

An unbalanced, bridging BNC input that accepts either the composite/multiplex (MPX) signal or 19kHz TTL-level pilot sync from the stereo generator.

RDS or MPX Output

An unbalanced, low-impedance BNC output to feed a wideband input of the FM exciter.

RDS Injection Level

Continuously adjustable between zero and 2 volts peak-to-peak.

Serial Data Port

RS-232 port (DB-9) for static programming and dynamic messaging.
2400, 4800, 9600 or 115k baud; 8, N, 1, plain-text ASCII protocol.

TA Switching

The temporary TA flag is set either by a software command or with a momentary contact closure through a rear-panel BNC connector.

Power Requirements

105÷130VAC or 210÷255VAC, 50/60Hz; 10W.

Size and Shipping Weight

1¾"H x 19"W x 7"D (1U); 7 lbs.

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