An FM Subcarrier Monitor/Demod

ACCURATELY MEASURES SCA, RDS/RBDS AND HIGH SPEED DATA SUBCARRIERS

Inovonics' 540 is a tunable Monitor/Demod for analog and digital FM broadcast subcarriers. It connects to the Composite/MPX output of any FM Modulation Monitor to measure the injection level of all subcarrier transmissions, and the subcarrier deviation of analog SCA program services.

Comprehensive RDS decoding is available as a plug-in option. The easily-installed circuit assembly reformats RDS data to a serial RS-232 output. Using the supplied software, any IBM-compatible PC can decode and display the common RDS data groups.

...the 540 – by Inovonics

➤ **Quick and Easy Interface** with any FM Mod-Monitor having a Composite (MPX) output connection.

➤ **Measures Injection Level** of SCA, RDS and high-speed digital data subcarriers.

➤ **Optional RDS Data Decoder** plug-in module is supplied with analysis software.

➤ **Demodulates Audio SCAs** and displays actual FM deviation of SCA program subcarriers.

➤ **Triple-Conversion Design** with precise, crystal-controlled digital tuning.

➤ **Easy Calibration** to Mod-Monitor reference — no additional test equipment required.

— **SUBCARRIER TUNING RANGE**
54kHz to 99kHz in 1kHz increments.

— **SUBCARRIER INJECTION MEASUREMENT**
a: ±1kHz to ±10kHz of main carrier deviation with ±250kHz measurement resolution.
b: 1% to 13% of main carrier modulation with 1/3% measurement resolution (100% modulation equivalent to ±75kHz deviation).

— **MEASUREMENT BANDWIDTH**
WIDE: 12kHz filter for SCA and certain high-speed data channels.
NARROW: 3.5kHz filter for RDS and similar narrowband data services.

— **SCA DEVIATION MEASUREMENT**
Absolute: ±1kHz to ±10kHz audio subcarrier deviation with ±250Hz resolution.
Relative: dB scale covers −20dB to +2.5dB. "0dB" is factory-set to ±5kHz deviation; may be recalibrated by user.

— **CALIBRATION PROVISION**
Total, main-channel carrier deviation is monitored in the CALIBRATE mode, and the INPUT GAIN control is adjusted to reflect the station's primary Mod-Monitor readings.

— **METERING**
The 38-segment bargraph display is peak-responding and features a peak-hold function.

— **SCA AUDIO RESPONSE**
±0.5dB, 50Hz to 10kHz. Switch-selection of FLAT or 150-microsecond DE-EMPHasis.

— **SCA DISTORTION AND NOISE**
Better than 40dB below ±5kHz deviation.

— **SCA AUDIO OUTPUTS**
Rear-panel: Active-balanced SCA program output at 0dBm level.
Front-panel: Headphone jack monitors SCA audio, switches to main channel (mono) in CALIBRATE mode.

— **COMPOSITE (MPX) INPUT**
Unbalanced, 100k-ohm-bridging; requires 1V p-p or greater input signal level representing ±75kHz main channel deviation.

— **SCA DECODE OPTION**
Easily-installed plug-in module formats RDS data to RS-232 standards. Supplied software enables detailed RDS data analysis with any IBM-compatible PC.

— **POWER REQUIREMENT**
105-130VAC or 210-255VAC, 50/60Hz; 20W.

— **SIZE AND SHIPPING WEIGHT**
1¾"H x 19"W x 6"D (1U); 7 lbs.

Rear View