



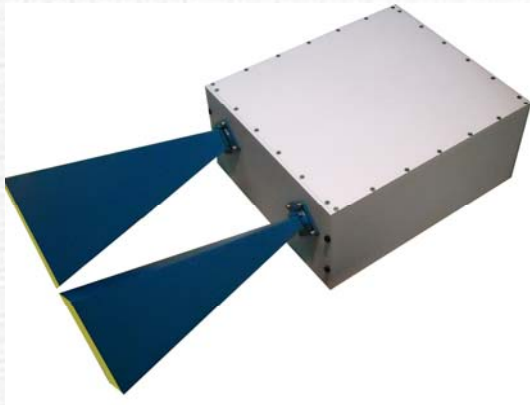
AC-RTG-X

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X-BAND RADAR RANGE AND DOPPLER TARGET GENERATOR

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INTRODUCTION



ACORDE X-band Radar Range and Doppler Target Generator performs range delays and Doppler shifts on received RF pulsed and CW radar carriers and retransmission over RF frequency band 8.2-12.4 GHz.

The Radar Range and Doppler Target Generator is a radar simulator designed for testing radar systems and training radar operators. The Radar Target Generator is based on analog and digital technologies to offer realism by generating range delayed and moving targets.

FUNCTIONAL DESCRIPTION

Operating mode set up parameters are written into the Radar Range and Doppler Target Generator over the digital interface Laptop Computer controlled by the user. These parameters include RF carrier frequency select, range delay and frequency offset.

When an RF radar carrier is received, it is down converted into the IF frequency and time delayed by the previously selected SAW delay lines. The frequency offset is done by a Direct Digital Synthesizer that provides the means of adding positive and negative offset to the radar carrier. There are two ranges in which the frequency offset may be controlled, doppler shift (pulsed/CW radars) and range delay (CW radars). This modified IF frequency is then up converted and amplified for constant power out. The output modulator switches off when no RF output is present.

FEATURES

- Broadband operation 8.2-12.4 GHz.
- 60 dB dynamic range.
- Wide angle coverage.
- 31 fixed range delays up to 16350 m.
- Doppler shift up to 56.214 KHz.
- Synthesized LO, 1 MHz resolution.
- Internal BITE.
- Laptop Computer control via RS485 serial interface: RF frequency, range delay and Doppler shift.
- Portable.
- Rugged construction



