

RF SOURCES

3 MHZ - 40 GHZ



HIGH-PERFORMANCE RF/MICROWAVE SOURCE & VECTOR SIGNAL GENERATOR

Textron Systems' RF Synthesizers provide an unmatched combination of frequency coverage, power range, signal fidelity and switching speed in either a 2-slot VXI or 1U LXI® (Ethernet) format. Each RF source allows for easy signal creation specific to complex Automated Test Equipment (ATE), communication network testing, and electromagnetic environment simulation. The LXI-compatible Ethernet configuration includes an intuitive web-based interface to ensure easy, out-of-the-box functionality as well as remote operation from anywhere on the network. This is automation made easy.

- > AM, FM, Pulse, I/Q, MSK, PSK, BPSK, QPSK, OQPSK, DQPSK, 8PSK, 16PSK, QAM: 4, 16, 32, 64, 256 and user-defined modulation schemes
- > Supports external modulation inputs
- > Excellent spectral purity, low phase noise
- > 3 MHz to 40 GHz frequency range
- > <500 ns switching speed between any two frequencies
- > Vector signal generation
- > Available in LXI or VXI formats



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TEXTRON Systems

► PUSHING PAST POSSIBLE

MULTI-MISSION CAPABILITY, EXPEDITIONARY SIZE AND WORLD-CLASS RELIABILITY — ON LAND AND AT SEA

FEATURES AND SPECIFICATIONS

POWER PERFORMANCE CHARACTERISTICS

- > Power Range:
 - > +18.5 to -100 dBm over 3 MHz to 20 GHz
 - > +5 to -100 dBm over 20 to 40 GHz
- > Power Resolution: 0.02 dB
- > Power Swpp Range: 40 dB max (+10 to -30 dBm)
- > Trigger Capability:
 - > Supports 8 TTL trigger signals
 - > Supports two front panel, +/- 3.3 V programmable threshold level, trigger input signals
 - > Supports one front panel, LVTTTL trigger output signal
 - > Provisions for two programmable internal trigger sources

FRONT PANEL INPUT/OUTPUT CONNECTORS

- > 2.4 mm jack RF output connector:
 - > 3 MHz to 40 GHz
- > SMA jack reference input connector:
 - > 500 MHz reference input signal
- > DSub (8W8) external analog modulation input connector:
 - > AM, FM, Pulse, Analog I, Analog Q, Trigger 1 In, Trigger 2 In, Trigger Out
- > Dual 50 pin (0.1 in. pin spacing header) external parallel digital I/Q modulation data or BCD frequency programming data input connector:
 - > 16 bits I data, 16 bits Q data, I/Q data clock
 - > 44 bits BCD frequency programming data and data strobe
- > DSub (25 pin) external serial digital I/Q and misc. I/O connector:
 - > Serial data input (LVTTTL)
 - > Serial data clock input (LVTTTL)
 - > Serial data symbol sync input (LVTTTL)
 - > Serial data pattern trigger input (LVTTTL)
 - > Serial data burst input (LVTTTL)
 - > External event 1 output (LVTTTL)
 - > External event 2 output (LVTTTL)
 - > Source settled output (LVTTTL)
 - > Sync output (LVTTTL)
 - > Pulse output (LVTTTL)
 - > Trigger output (LVTTTL)
 - > Sweep output (0-10V)

POWER PERFORMANCE CHARACTERISTICS

- > Frequency range: 3 MHz to 40 GHz
- > Frequency resolution: 0.04 Hz
- > Frequency accuracy:
 - > 500 MHz reference oscillator is locked to an internal or external 10 MHz reference. The accuracy of the reference oscillator's internal 10 MHz is +/- 50 ppb. The normal mode of operation is to use a 10 MHz signal obtained from an external Rubidium oscillator.
- > Frequency switching speed:
 - > < 500 nS in any of three bands
 - > 3 to 500 MHz, 0.5 to 20 GHz, 20 to 40 GHz
 - > < 15 mS across any band break
- > Spurious:
 - > < -55 dBc maximum (@ +10 dBm output power level (-60 dBc typical))

PHYSICAL CHARACTERISTICS

- > Ethernet configuration: (1U) 19 inch rack-mount configuration
- > VXI: 2 slot C-size module

COMMUNICATIONS INTERFACE

- > LXI-Compliant RJ-45 LAN interface
- > A16A32/D16D32 DTB slave interface
- > Short and extended non-privileged and supervisory data access
- > Switch programmable base address (32 MB block address boundaries)

ENVIRONMENT

- > Operating temperature: 0 to +50 degrees Celsius
- > Non-operating temperature: -40 to +71 degrees Celsius
- > Humidity: 5 to 95% non-condensing
- > Altitude: 0 to 6,000 feet
- > Vibration: MIL-PRF-28800F paragraph 3.8.4.1 class 4 equipment
- > Shock: MIL-STD-190 grade B