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.

- 3 MHz to 40 GHz frequency range
- <500 ns switching speed between any two frequencies
- Vector signal generation
- Available in LXI or VXI formats
- 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
FEATURES AND SPECIFICATIONS

A detailed specification is available on request

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)

FREQUENCY 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: 0.02dB
- Power sweep 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, LV TTL trigger output signal
  - Provisions for two programmable internal trigger sources

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PHYSICAL CHARACTERISTICS

- 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

COMMUNICATIONS INTERFACE

- 2.4mm jack RF output connector:
  - 3 MHz to 40 GHz
- SMA jack reference input connector:
  - 500 MHz reference input signal
- DSub (BW8) 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 (LV TTL)
  - Serial data clock input (LV TTL)
  - Serial data symbol sync input (LV TTL)
  - Serial data pattern trigger input (LV TTL)
  - Serial data burst input (LV TTL)
  - External event 1 output (LV TTL)
  - External event 2 output (LV TTL)
  - Source settled output (LV TTL)
  - Sync output (LV TTL)
  - Pulse output (LV TTL)
  - Trigger output (LV TTL)
  - Sweep output (0-10V)

FRONT PANEL INPUT/OUTPUT CONNECTORS

- 2.4mm jack RF output connector:
  - 3 MHz to 40 GHz
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