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, 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

[TextronSystems.com](http://TextronSystems.com)
RF SOURCES

FEATURES AND SPECIFICATIONS

POWER PERFORMANCE CHARACTERISTICS
- **Power Range:**
  - +18.5 tp -100 dBm over 3 MHz to 20 GHz
  - +5 to -100 dBm over 20 to 40 GHz
- **Power Resolution:** 0.02 dB
- **Power Swmp 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, LVTTL 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 1, 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/O 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)

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