

# LO SYNTHESIZER



## features

- Low phase noise
- Low spurious (-60 dBc max)
- Computer Controlled (RS-232C)
- Single or dual output
- Many available bands:  
SMR, AMPS, GSM, DCS, PCS, WLAN
- -10° to 60°C operating range
- Shielded design
- Internal frequency reference

## description

This programmable signal source is completely self-contained with an internal TCXO reference. The synthesizer can be either serially loaded through the RS-232C control port or set up to power on at a pre-determined frequency. The primary output can be configured for output frequencies up to 2.5GHz, while the secondary output can be configured for frequencies up to 510 MHz. The step size can also be specified. Narrow step sizes will effect the phase noise and spurious output of the synthesizer. This source is suitable for use in dedicated test setups or as a component of a production system. Typical applications include:

- Local oscillator (LO) source for single or dual conversion up/down converters
- Stimulus for CW transmitter
- Signal generator for bench testing or production test setup.

## typical specifications

RF OUTPUT #1:	
RF Out Freq (MHz)	2.18-2.30GHz
Ref Osc (MHz)	INTERNAL 14.4 MHz
Freq Step Size (kHz)	100
Pout (dBm over freq)	1.0 +/- 2.0
Spurious (dBc)	-65
Frequency Stability (ppm)	+/- 2.5
SSB Phase Noise (dBc/Hz)	
1 kHz offset	60
10 kHz offset	75
100 kHz offset	95

DC Power: 9 -13.0 V @ 100 mA maximum

## dimensions and connections

2.76" W x 4.42" L x 0.56" H

## absolute maximum ratings

Temp, Case Operating: -20 to 70°C  
 Temp, Storage: -55 to 150°C  
 DC Volts: +15.0V

### PIN CONNECTIONS

RF OUT #1	J1 (SMA Jack)
RF OUT #2	J2 (SMA Jack)
RS-232 Data Out	J3(6)
RS-232 Data In	J3(5)
RS-232 GND	J3(14)
+12 VDC	J3(15)
+12 V RTN	J3(8)
LOCK DETECT	J3(7)
Digital GND	J3(9)

# LO SYNTHESIZER

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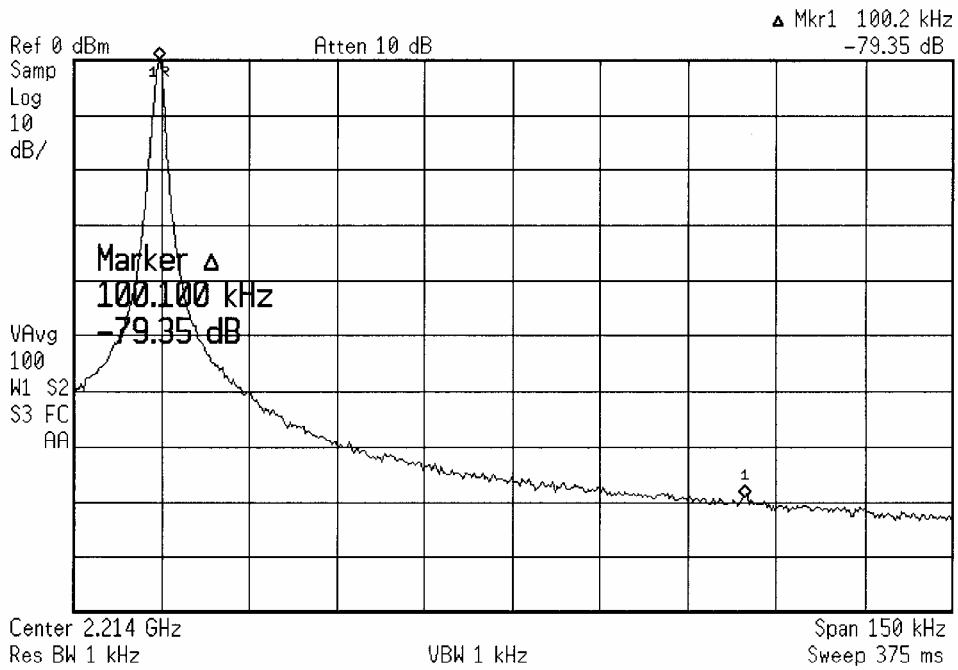


Figure 1 – RF Output #1 – Reference Spur

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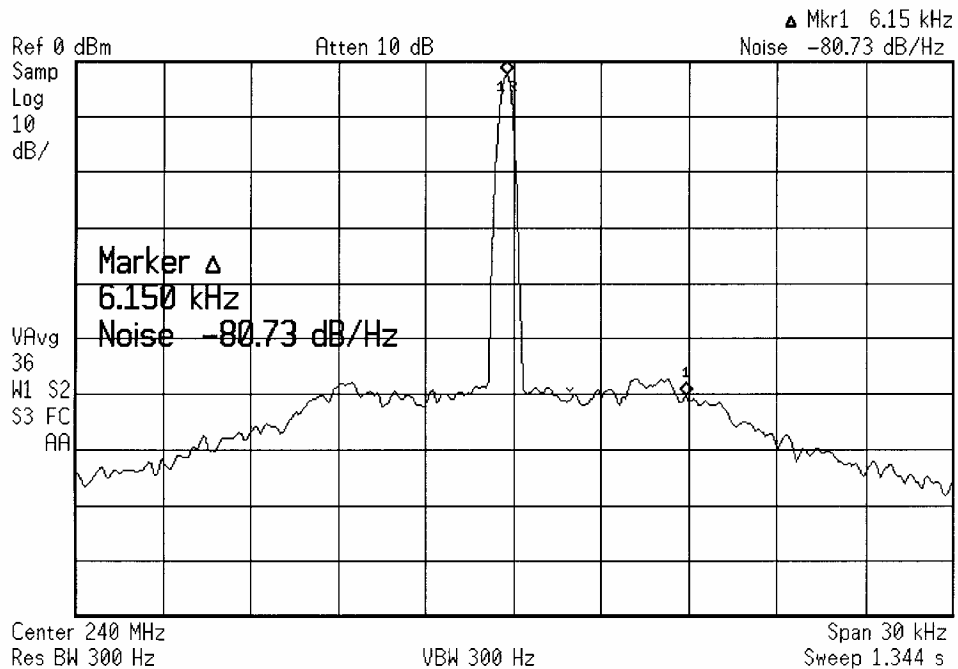


Figure 2 – RF Output #2 – Phase Noise