

low phase noise, low spurious

## 190MHz IF / 2120-2240MHz SYNTHESIZER



### description

This programmable signal source is completely self-contained with an internal TCXO reference. The synthesizer can be serially loaded through the RS-232C control port to set the frequency of RF OUTPUT #1 (Reference the interface control document 010058-004.DOC). Frequency upon power up is configurable through the 'boot last' command. Either a predetermined default frequency may be selected, or the synthesizer will also power up to the last entered frequency. Output level of AUX RF OUTPUT #2 is +3dBm. 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

### absolute maximum ratings

Temp, Case Operating: 0 to 50°C  
DC Volts: +13.5V

### features

- Low phase noise
- Computer Controlled (RS-232C)
- Dual output
- 0° to 50°C operating range
- Internal frequency reference

### typical specifications

RF OUTPUT #1:	
RF Out Freq	2120-2240 MHz
Ref Osc	INTERNAL 14.4 MHz
Freq Step Size	100 kHz
Pout (dBm over freq)	3.0 +/- 1.0 dBm
Spurious	-60 dBc typical
Harmonics	-50 dBc typical
Frequency Stability	+/- 2.5 ppm
SSB Phase Noise	
1 kHz offset	-70 dBc/Hz
10 kHz offset	-75 dBc/Hz
100 kHz offset	-112 dBc/Hz
Tuning Speed	500uSec maximum
AUX RF OUTPUT #2:	
IF Range	190 MHz +/-5MHz
Step Size	100 kHz
Pout (dBm)	3.0 +/- 1.0 dBm
Spurious	-65 dBc typical
Harmonics	-15 dBc typical
DC Power:	+8.0 -13.5 V @ 105 mA typical

### dimensions and connections

2.76" W x 4.42" L x 0.55" H

#### PIN CONNECTIONS

RF OUT #1	J1 (SMA Jack)
AUX 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)

SYNTHESIZER PART NUMBER: 310-010058-004