

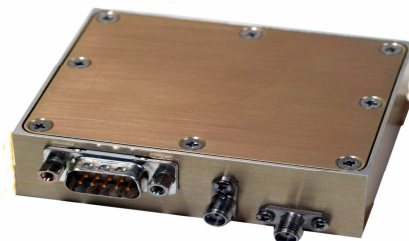
WIDEBAND LOW NOISE SYNTHESIZER 4.0 TO 10.0 GHz

FEATURES

Wide Frequency Coverage
 Compact Size
 Low Phase Noise & Spurious
 Designed for Military Environments

APPLICATIONS

Ideal for ATE
 Frequency Converters
 SatCom
 Telecom



DESCRIPTION

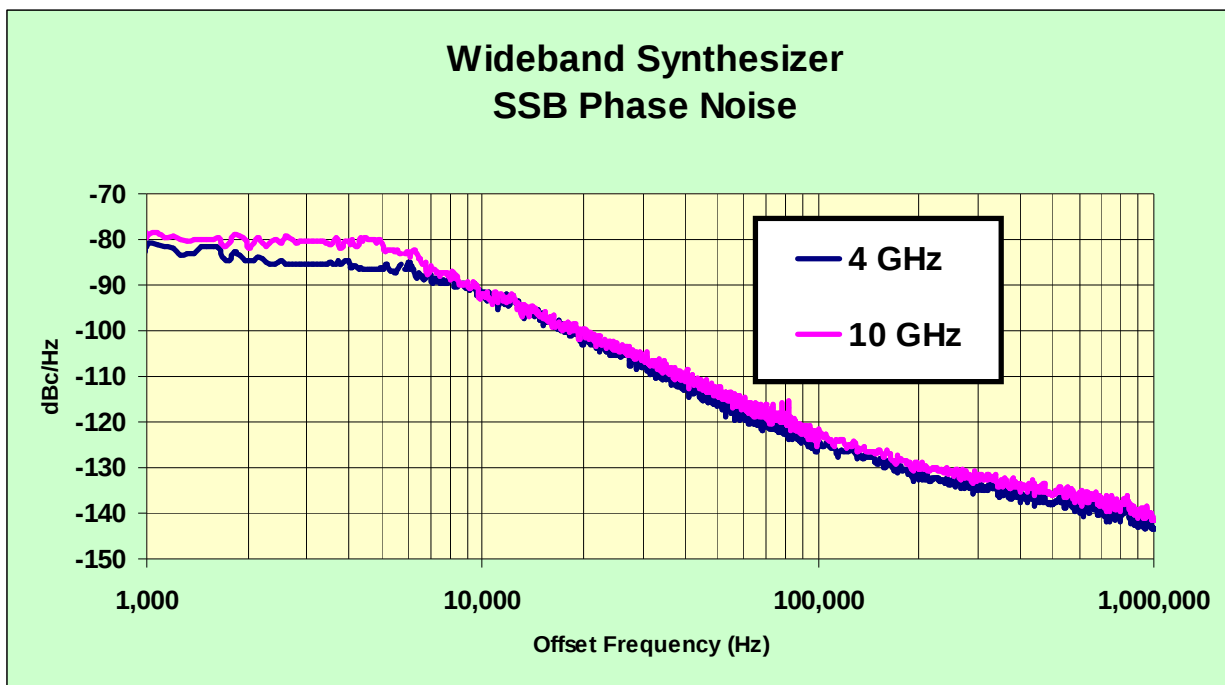
The SNY-0410-510-01 is a low noise, wide tuning range synthesizer in a compact chassis suitable for VXI or PXI applications. Extremely cost effective for the frequency coverage, this unit provides phase noise and spurious response that is unmatched in wide-band VCO based synthesizers. An optional feature is for the last frequency set prior to power turn-off being the start-up frequency at power turn-on.

Parameters		Model #	SNY-0410-510-01	
		Units	Specification Limit	
General				
Nominal Frequency Range		GHz	4.0 to 10.0	
Tuning Step Size		MHz	1 (Options to 250 kHz)	
Power Level		dBm, min.	14	
Power Variation (Freq & Temp.)		dB, max	± 2	
Harmonic Level		dBc, typ	-12	
Spurious Level (< 100 kHz from Carrier)		dBc, max	-70	
Switching Speed		mSec, typ.	50	
Output Impedance		Ohms	50	
Phase Noise		Offset Freq.	Typical	Maximum
SSB Phase Noise	100 Hz*	dBc/Hz	-65	-60
	1 kHz*	dBc/Hz	-80	-72
	10 kHz	dBc/Hz	-92	-84
	100 kHz	dBc/Hz	-124	-116
	1 MHz	dBc/Hz	-142	-140
Frequency Reference				
External		MHz	10	
PowerLevel		dBm	0 ± 3	
Input Impedance		Ohms	50	
Digital Interface				
Tuning Format		Serial	Serial TTL/CMOS	
Serial Bits			16 bit Binary Channel, 3 wire (Preceded by ASCII "C")	
Phase Lock Indicator		TTL	High=Lock	
DC Power				
Volts = +15.00		Amps, typ.	0.8	
Volts = +5.00		Amps, typ.	0.20	
Packaging & Environmental				
Operational CaseTemperature		Degrees C	0 TO +60	
Humidity		% RH, max	95	
Altitude		Feet ASL	10,000	
Weight		Oz., typ	12	
Size (See attached figure)		Inches	3.80 x 2.56 x 0.80	

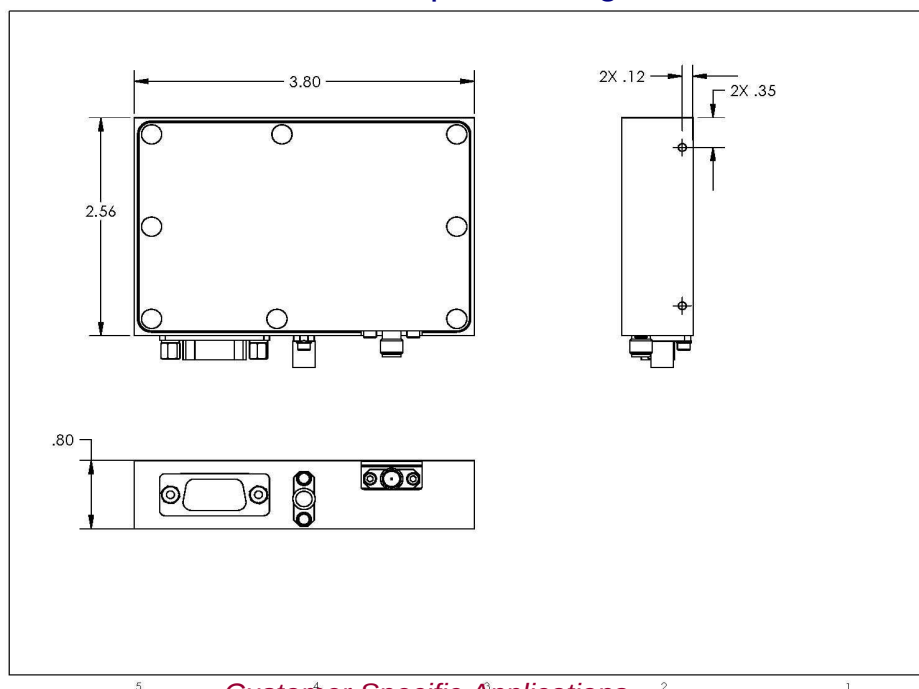
* Phase Noise at 100 Hz and 1 kHz is dependent on the performance of the 10 MHz reference signal.

WIDEBAND LOW NOISE SYNTHESIZER 4.0 TO 10.0 GHz

SSB Phase Noise Performance



Envelope Drawing



Customer Specific Applications

If you don't see what you need, contact us. MicroSource takes pride in being a world class, fast turn design center for microwave YIG based component, subsystems and synthesizers.