



Wideband Low Noise Synthesizer Module 4.0 TO 10.0 GHz

FEATURES

Wide Frequency Coverage
Compact Size
Low Phase Noise & Spurious

APPLICATIONS

Ideal for ATE
Frequency Converters
SatCom
Telecom



DESCRIPTION

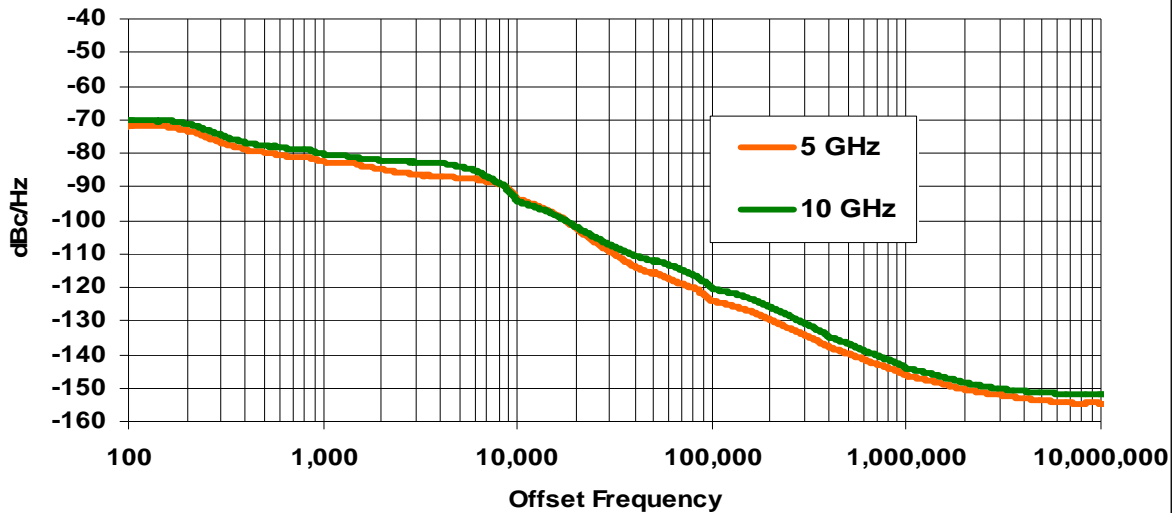
The SNY-0410-510-01 is a low noise, wide tuning range synthesizer in a compact chassis suitable for VXI or PXI applications. Extremely cost effective for the frequency coverage, this unit provides phase noise and spurious response that is unmatched in wide-band VCO based synthesizers. An optional feature 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	kHz	250	
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*	-70	-65
	1 kHz*	-80	-75
	10 kHz	-94	-88
	100 kHz	-120	-116
	1 MHz	-143	-139
Frequency Reference			
External	MHz	10	
PowerLevel	dBm	0 ± 3 dB	
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 envelope drawing)	Inches	2.56 x 4.00 x 0.80	

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

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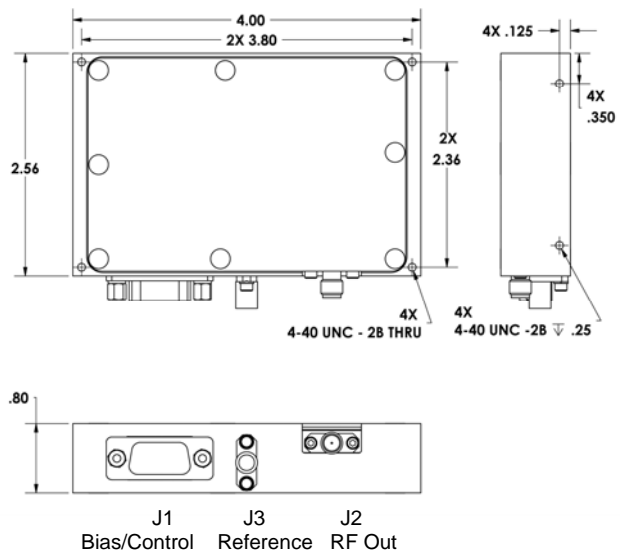
SSB Phase Noise (Typical)



Envelope Drawing

J1 Function Table

Pin	Function
1	Clock
2	Data
3	Enable
4	Lock Detector Output
5	N/C
6	+15 Vdc
7	+5 Vdc
8	Common
9	Logic Common



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.