SMSB-CX
Broadband Fast Tuning Miniature Dual Synthesizers

FEATURES

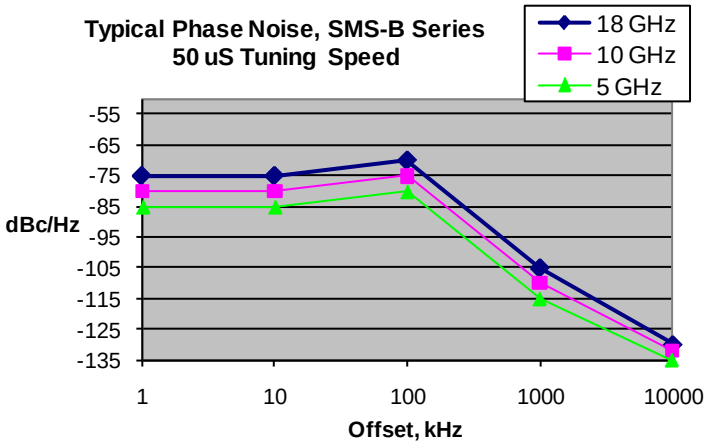
- Small 3.0” x 2.9” x 0.7” Package
- Dual Independent Synthesizers
- Four Outputs Each Synthesizer
- 2-18 GHz Frequency Coverage
- 50 uS Tuning Speed Option
- - 60 dBc Spurious
- 11.75 W Total Power Consumption

APPLICATIONS

- EW / SIGINT
- Radar Systems
- Microwave Radio
- Instrumentation / Test Module

DESCRIPTION

The SMSB-CX was designed as a receiver LO and calibration source. It contains two independent frequency synthesizers with optional -5 dB to -80 dB adjustable RF output attenuation. Each synthesizer has four RF outputs to accommodate four quadrant receivers. Both synthesizers cover the entire 2-18 GHz (0.15-20 GHz optional) spectrum. The design utilizes the latest MMIC components including VCO’s, Multipliers, and Amplifiers to shrink size, eliminate hand tuning, and minimize parts count. The result is a low cost, lightweight integrated module that can perform in the harshest environments.



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PERFORMANCE SPECIFICATIONS *

PARAMETER	VALUE	OPTIONS
Synthesizer 1 - Frequency Range	2 GHz – 18 GHz	150 MHz -20 GHz
Synthesizer 2 - Frequency Range	2 GHz – 18 GHz	150 MHz -20 GHz
Outputs	4 Each/Synthesizer	
Step Size	10 MHz	
Tuning Speed	50 µS	
Output Power	+ 12 dBm	-5 dBc to -80 dBc Attenuation
Power Variation	+/- 2 dB, over frequency	
Harmonics	-12 dBc	
Spurious	-60 dBc	
Phase Noise (typical @ 10 GHz)		
1 kHz		
10 kHz	-75 dBc/Hz	
100 kHz		
1 MHz	-110 dBc/Hz	
Frequency Accuracy	same as reference	
Input Reference Frequency	10 MHz	
Input Reference Power	0 dBm	
Programming (LVTTL)	Serial SPI W/ Lock Set	
Supply Voltage	+5 VDC, 1,500 mA	
	+15 VDC, 300 mA	
	-5 VDC, 100 mA	
Environmental		
Vibration	(as required)	
Shock	(as required)	
Operating Temp	-20 to +75 deg. C	-45 to +85 deg. C
Physical	3.6” x 3.9” x 0.58”, SMA(F) Micro-D 25 pin connector	custom package

* Other configurations available, consult factory

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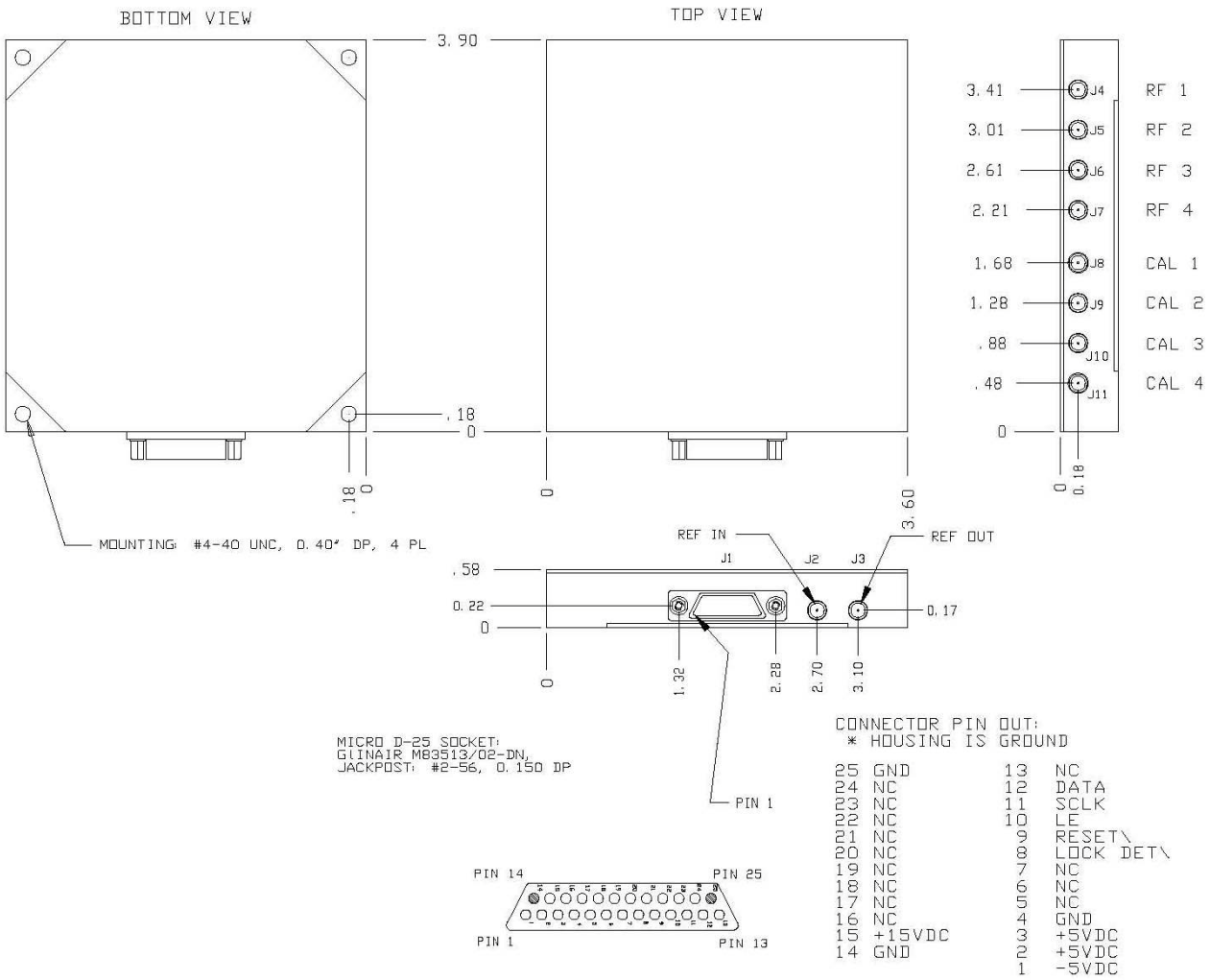
PACKAGE OUTLINE:



CONNECTOR PIN OUT:
* HOUSING IS GROUND

25	GND	13	NC
24	NC	12	DATA
23	NC	11	SCLK
22	NC	10	LE
21	NC	9	RESET\
20	NC	8	LOCK DET\
19	NC	7	NC
18	NC	6	NC
17	NC	5	NC
16	NC	4	GND
15	+15VDC	3	+5VDC
14	GND	2	+5VDC
		1	-5VDC

ISO 9001 REGISTERED FIRM

Certificate # A2498US

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