

Electrical Specifications

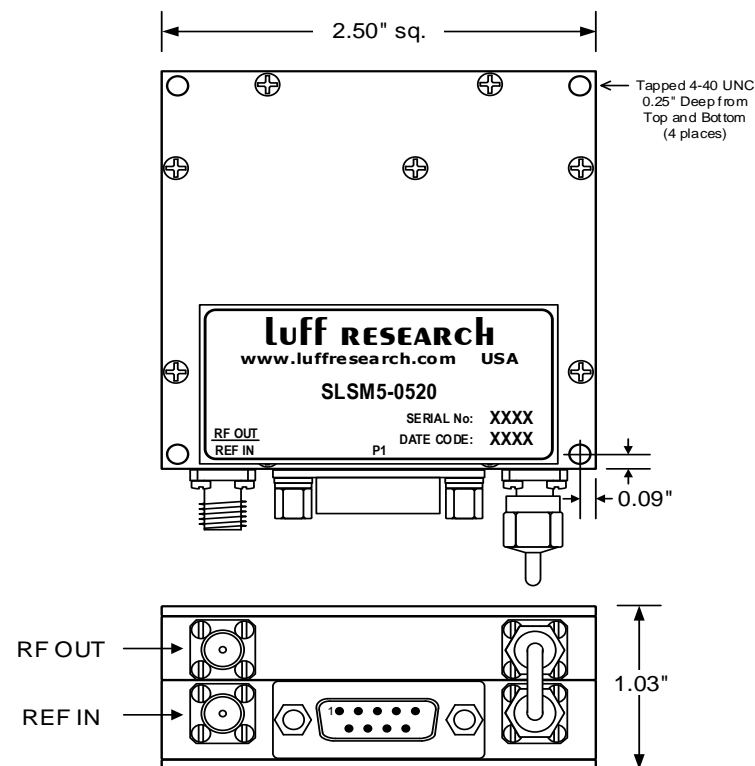
Frequency	0.5 - 20 GHz		
Frequency Step Size	1 KHz		
Frequency Stability and Accuracy			
External Ref.	Same as input		
Internal Ref.	± 0.5 PPM (Over Temp Range)		
Aging (after 2 months)	± 1.0 PPM max per year @ 25°C		
Adjustability	10 years		
Phase noise (dBc/Hz)	Typ. @	500 MHz	20 GHz
L(100 Hz)		-95	-65
L(1 kHz)		-110	-75
L(10 kHz)		-115	-80
L(100 kHz)		-115	-85
L(1 MHz)		-140	-110
L(10 MHz)		-150	-120
Spurious (max)	-60 dBc		
Harmonics / Sub-Harmonics (typ.)	-15 / -15 dBc		
DC Power			
+5.5 VDC ± 0.5 VDC	1 A		
Power Out (nom. / min. @ 25°C)	+16 / +12 dBm		
Power Variation (typ.)	± 3 dB		
Load VSWR (max.)	2:1		
Frequency Control	RS-485		
Acquisition Time (typ.)	< 5 ms		
Phase-Lock Indicator (LD)	Open Collector (note 9)		

Reference Specifications

Input Reference Frequency	10 MHz
Input Level	0 dBm ± 3 dBm

Environment Specifications

Operating Temp. Range (surface)	0°C to 60°C (note 8)
Storage Temp. Range	-40°C to 85°C
Relative Humidity (non-condensing)	90%RH @ 40°C
Shock	30G / 10 ms
Vibration	4G / 20 Hz - 20 kHz



Notes:

1. This unit is available with an internal TCXO (± 0.5 PPM) reference upon quote.
2. "Reference Input" is not available on units with an internal TCXO.
3. Frequency Adjust feature is only applicable to units with an internal TCXO.
4. These Synthesizers employ a fractional $\div N$ architecture.
5. With an external input, the output frequency has the same stability as the input and is typically accurate to within 2 Hz.
6. There is a very small set of frequencies in which a spectral anomaly occurs: the close-in spurious are > -60 dBc. These are often eliminated by shifting the F_0 by 1 or 2 kHz.
7. This unit features a non-volatile memory and will return to the last frequency set.
8. Proper heatsinking may be required to keep surface temp. lower than +65°C.
9. TTL Compatible Lock Detect available upon quote.

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Product Data Sheet

Ultra-Broadband Frequency Synthesizer

SLSM5-0520

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