

FREQUENCY SYNTHESIZER SPECIFICATIONS

Output Frequency

Output Frequency Range:	25 - 27 GHz		
Frequency step size:	1 kHz		
Frequency stability and accuracy			
<input checked="" type="checkbox"/> External reference unit	Same as input		
<input type="checkbox"/> Internal reference unit	±0.5 PPM (over temp range)		
Aging (After 2 months):	±1 PPM max per year @ 25°C		
Adjustability (typ.):	10 years		
Phase noise in dBc/Hz @ 25 GHz:		Typ.	Max.
	L(100 Hz)	-62	
	L(1 kHz)	-75	
	L(10 kHz)	-78	
	L(100 kHz)	-88	
	L(1 MHz)	-114	
	L(10 MHz)		
Spurious (typ.):	-60 dBc		
Harmonics / Sub-Harmonics (typ.):	-20 / -20 dBc		
Power out (min.):	+13 dBm		
Power variation (freq. & temp.) (max.):	±3 dB		
Load VSWR:	2:1		

Reference Frequency

Input reference frequency:	10 MHz
Input level:	0 dBm ±3 dB

Frequency Tuning / Alarm

Frequency control:	RS-485
Acquisition time (typ):	< 5 msec
Phase-lock indicator (LD), High = lock:	<input type="checkbox"/> Open collector <input checked="" type="checkbox"/> TTL

DC Power

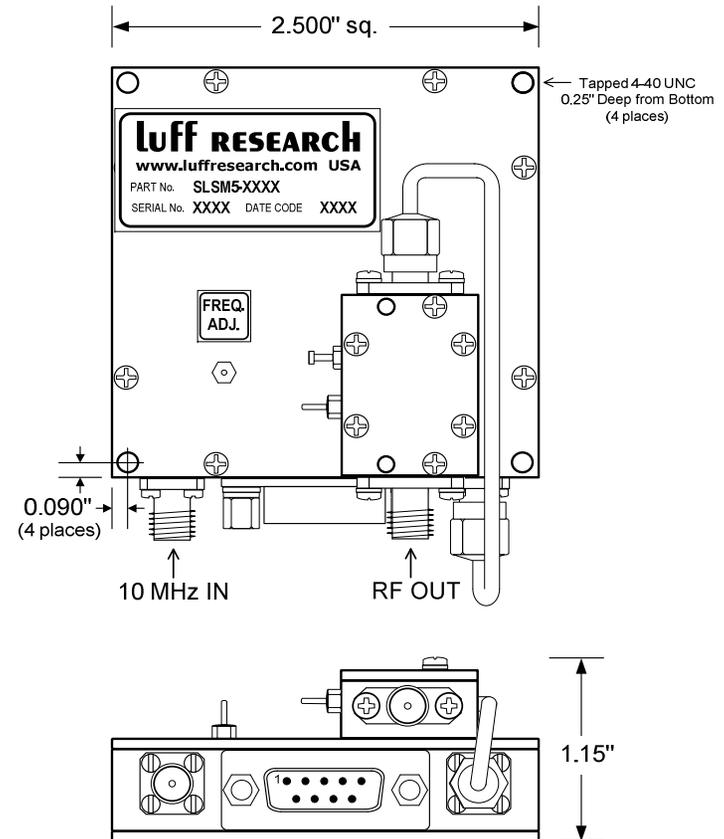
+5.5 Vdc ±0.5 Vdc	750 mA
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Mechanical

Input connector:	SMA (F)
Output connector:	High Performance SMA (F)
DC connections / Freq. Control:	DB9 (M)

Environment

Operating temperature range (surface):	-10°C to 70°C
Storage temperature range:	-40°C to 85°C
Relative humidity (non-condensing):	90%RH @ 40°
Shock:	30 G / 10msec
Vibration:	4 G / 20 Hz - 20 kHz



NOTES:

1. These units are available with an internal TCXO reference. (Model No. SLSM5-2527-INT)
2. The Frequency adjustment is only applicable on units with internal reference.
3. The '10 MHz IN' connector is not provided on units with internal reference.
4. This synthesizer employs a fractional $\pm N$ architecture. With an external input the output frequency has the same stability as the input and is typically accurate to within 2 Hz.
5. There is a very small set of frequencies at which a spectral anomaly occurs where the close in spurious are <-60 dBc. These can often be eliminated by shifting F_0 by 1 or 2 kHz.
6. These units have a non-volatile memory feature and at power on the unit will return to the last set frequency.
7. Proper heatsinking is required to keep surface temperature less than +70°C.

Luff RESEARCH, INC. USA

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PRODUCT DATA SHEET

FREQUENCY SYNTHESIZER

Model: SLSM5-2527

Rev. B

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