

## FREQUENCY SYNTHESIZER SPECIFICATIONS

### Output Frequency

Output Frequency Range:	6 - 12 GHz		
Frequency step size:	1 kHz		
Frequency stability and accuracy (note 4)			
External reference unit	Same as input		
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 @10 GHz:		Typ.	Max.
	L(100 Hz)	-69	
	L(1 kHz)	-83	
	L(10 kHz)	-88	
	L(100 kHz)	-91	
	L(1 MHz)	-119	
L(10 MHz)			
Spurious (typ.): (note 5)	-60 dBc		
Harmonics (typ.):	-20 dBc		
Power out (min.):	-3 dBm		
Power variation (freq. & temp.) (max.):	±3 dB		
Load VSWR (max.):	2:1		

### Reference Frequency

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

### Frequency Tuning / Alarm

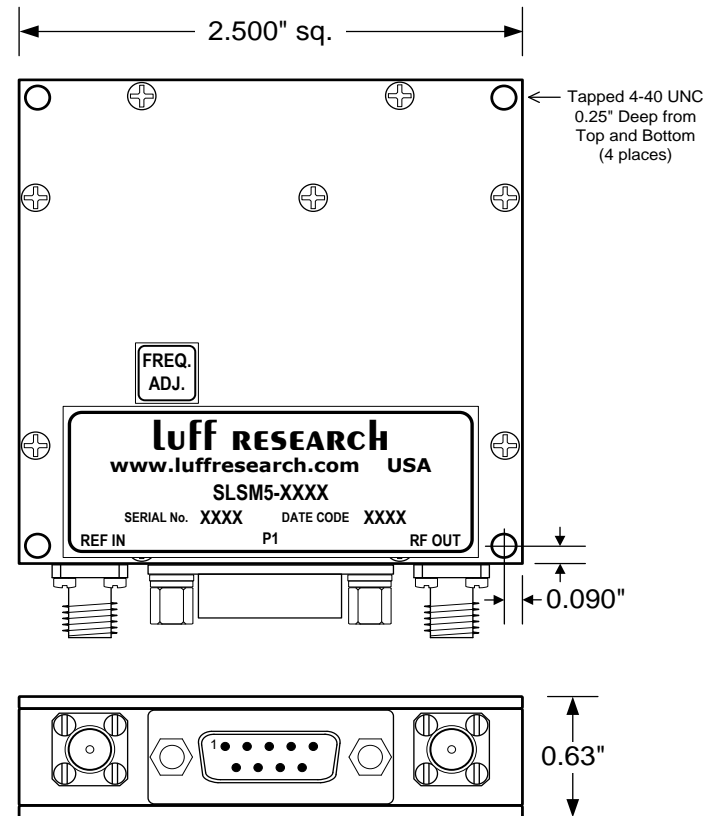
Frequency control:	RS-485
Acquisition time (typ):	< 5 msec
Phase-lock indicator (LD), High = lock:	Open collector (note 8)

### DC Power

+5.5 Vdc ±0.5 V	750 mA (max.)
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### Environment

Operating temperature range (surface):	-5°C to +65°C (note 7)
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
Specifications @:	+25°C



### NOTES:

1. This unit is available with an internal TCXO (±0.5 PPM) - Model No. SLSM5-612-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 ±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 Fo 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 +65°C.
8. For TTL compatible lock detector output, add -T at the end of the model number

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PRODUCT DATA SHEET

FREQUENCY SYNTHESIZER

Model: SLSM5-612

Rev. C

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