

Electrical Specifications

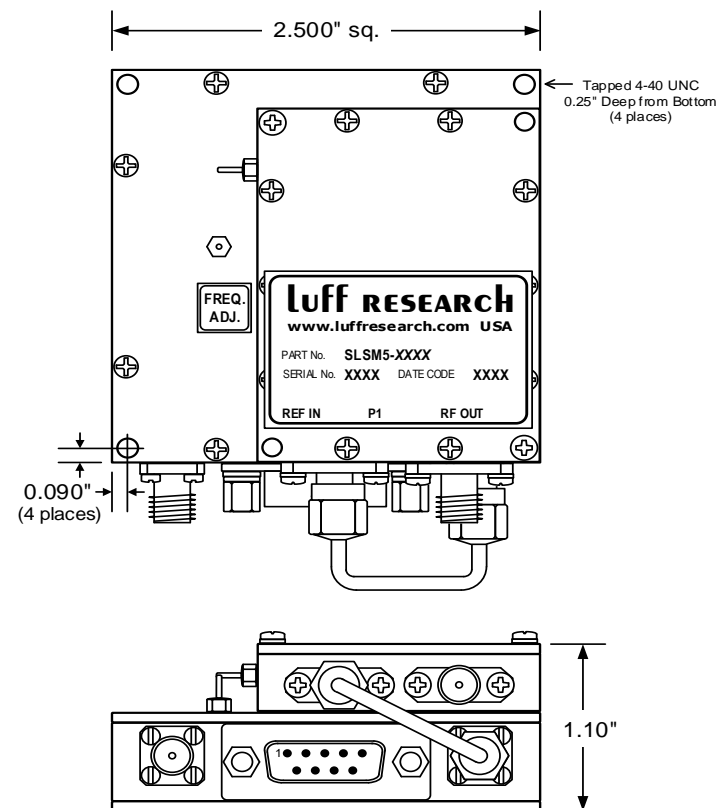
Frequency	12 - 25 GHz
Frequency Step Size	1 KHz
Frequency Stability and Accuracy	
External Ref.	Same as input
Internal Ref.	± 0.5 PPM (Over Temp Range)
Aging (after 2 months)	± 1.0 PPM max per year @ 25°C
Adjustability	10 years
Phase noise (dBc/Hz)	Typ.
L(100 Hz)	-64
L(1 kHz)	-74
L(10 kHz)	-75
L(100 kHz)	-83
L(1 MHz)	-113
L(10 MHz)	-133
Spurious (max)	-60 dBc
Harmonics / Sub-Harmonics (typ.)	-17 / -17 dBc
DC Power	
+5.5 VDC ± 0.5 VDC	1 A
Power Out (nom. / min. @ 25°C)	+15 / +13 dBm
Power Variation (typ.)	± 2 dB
Load VSWR (max.)	2:1
Frequency Control	RS-485
Acquisition Time (typ.)	< 5ms
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 units 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.

Luff RESEARCH, inc.

luffresearch.com | 20 N. Tyson Ave. Floral Park, NY 11001

Product Data Sheet

Frequency Synthesizer

SLSM5-1225

April 17, 2018