

Output Frequency

Output Frequency Range:	16.0 - 16.5 GHz	
Frequency step size:	1 kHz	
Frequency stability and accuracy	Same as input	
Phase noise in dBc/Hz:	Typ.	Design Goal
	L(10 Hz)	-48 -45
	L(100 Hz)	-82 -70
	L(1 kHz)	-90 -82
	L(10 kHz)	-90 -87
	L(100 kHz)	-92 -97
	L(1 MHz)	-110 -110
	L(10 MHz)	-129
Spurious in dBc (max.):	-55	-60
Harmonics / Sub-Harmonics (typ.):	-17 dBc	
Power out (nom. / min.) @ 25°C:	+15 / +13 dBm	
Power variation (freq. & temp.) (max.):	±2 dB	
Load VSWR (max.):	2:1	

Reference Frequency

Input reference frequency:	100 MHz
Input level:	0 dBm ±3 dB

Frequency Tuning / Alarm

Frequency control:	Serial RS-232 / RS-422 / RS-485
Acquisition time (typ):	100 msec
Phase-lock indicator (LD), High = lock:	Open collector or TTL (selectable on unit)

DC Power

+5.2 Vdc (min.) +7.0 Vdc (max.)	1.75 A (typ.)
+15.0 Vdc (min.) +17.0 Vdc (max.)	250 mA (typ.)

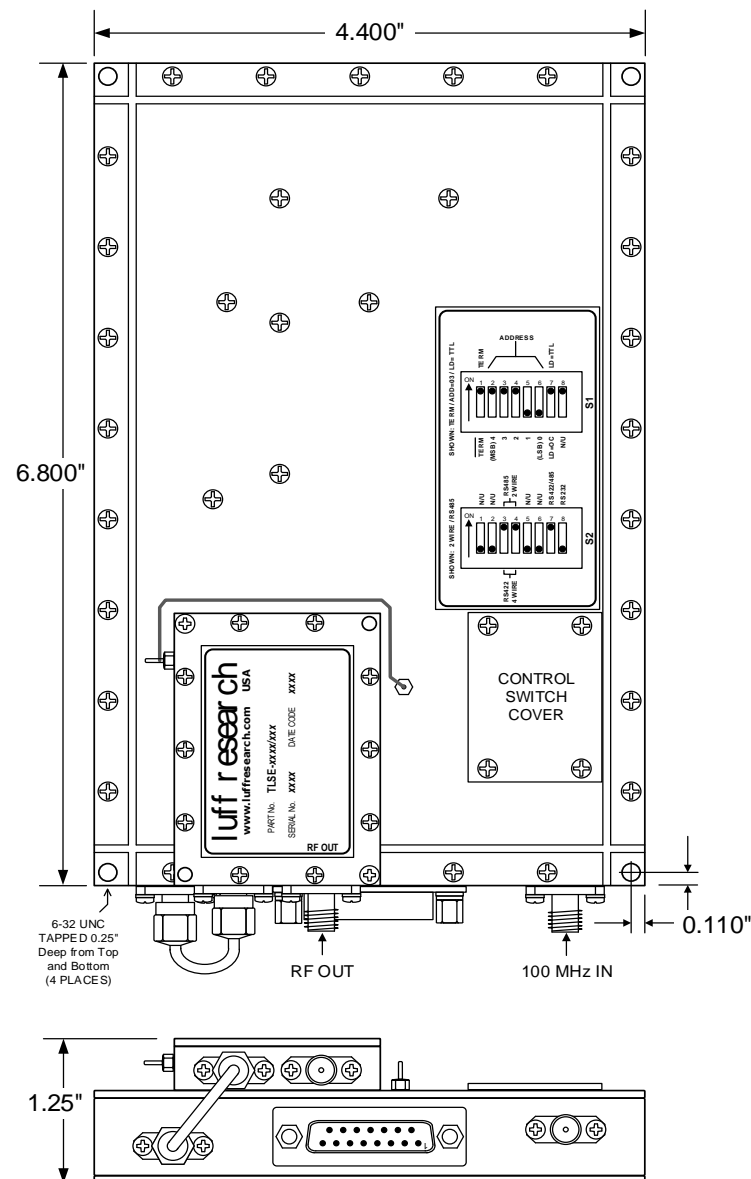
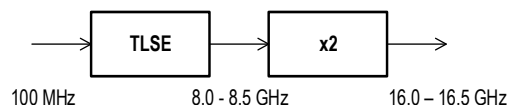
Mechanical

RF connectors:	SMA (F)
DC connections / Freq. Control:	Filtered DB15 (M)
EMI gasketed enclosure	

Environment

Operating temperature range (surface):	-5°C to +65°C (note 1)
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

Block Diagram



NOTES:

1. Proper heatsinking is required to keep surface temperature less than +65°C.

luff research, inc.

FLORAL PARK, NY USA

www.luffresearch.com

PRODUCT DATA SHEET

TLSE FREQUENCY SYNTHESIZER

Model: TLSE-1600016500-100

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