

Output Frequency

| | | | |
|---|---|------|------|
| Output Frequency Range: | 6780 - 7880 GHz | | |
| Frequency step size: | 100 kHz | | |
| Frequency stability and accuracy | | | |
| External reference | Same as input | | |
| Internal reference | $\leq \pm 5 \times 10^{-7}$ (over temp range) | | |
| Aging (After 2 months): | ± 1 PPM max per year @ 25°C | | |
| Adjustability (typ.): | 10 years | | |
| Phase noise in dBc/Hz (typ.): | | Typ. | Req. |
| | L(10 Hz) | -50 | |
| | L(100 Hz) | -80 | |
| | L(1 kHz) | -95 | |
| | L(10 kHz) | -98 | |
| | L(100 kHz) | -105 | |
| | L(1 MHz) | -118 | |
| | L(10 MHz) | -130 | |
| Spurious: | -60 dBc | | |
| Harmonics (typ.): | -20 dBc | | |
| Power out (nom. / min.) @ 25°C: | +15 / +13 dBm | | |
| Power variation (freq. & temp.) (max.): | 3 dB | | |
| VSWR (typ.): | 2:1 | | |

Reference Frequency

| | |
|-------------------------------------|------------------|
| Input reference frequency (note 2): | 5 or 10 MHz |
| Input level: | 0 dBm ± 3 dB |

Frequency Tuning / Alarm

| | |
|---|---------------------------------|
| Frequency control: | Serial RS-232 / RS-422 / RS-485 |
| Acquisition time (typ): | 50 msec |
| Phase-lock indicator (LD), High = lock: | Open collector or TTL |

DC Power

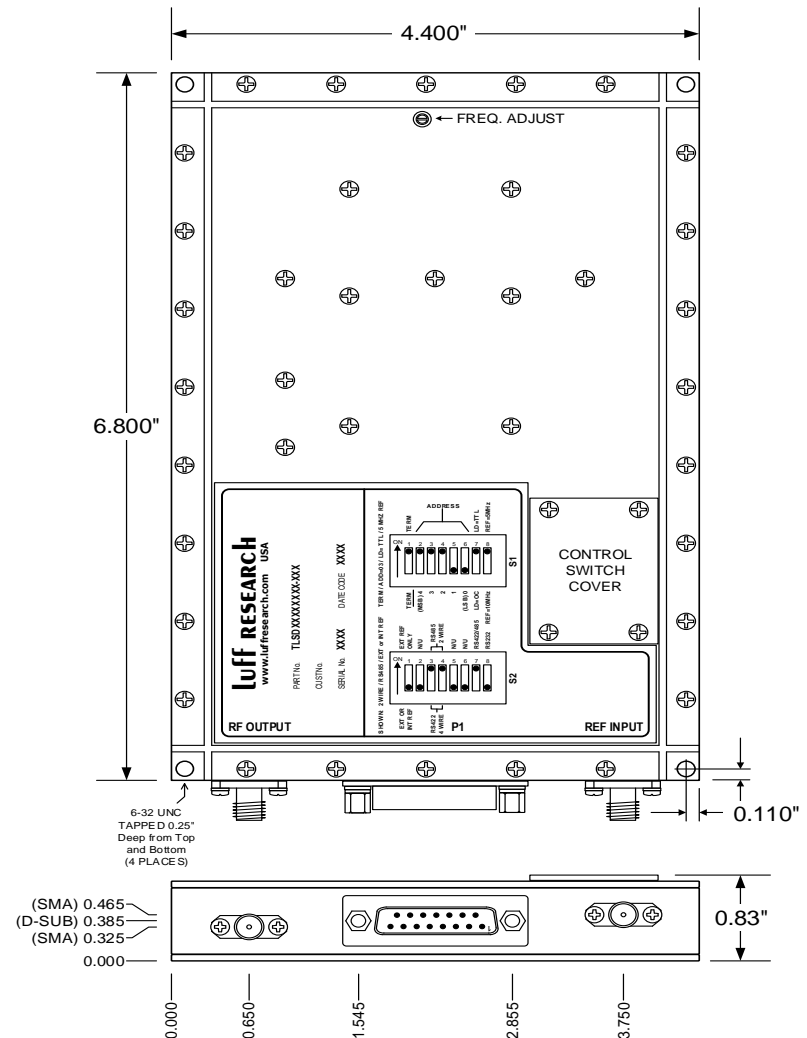
| | | |
|-----------------------------------|---------------|-------|
| +5.2 Vdc (min.) +7.0 Vdc (max.) | Turn-on: | 1.4 A |
| +15.0 Vdc (min.) +17.0 Vdc (max.) | Steady State: | 0.4 A |
| | | 0.3 A |

Mechanical

| | |
|--------------------------|----------|
| RF connectors: | SMA (F) |
| Digital & DC connection: | DB15 (M) |

Environment

| | |
|--|-----------------------|
| Operating temperature range (surface): | -5°C to 65°C (note 3) |
| 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 is an EMI gasketed package with a filtered DB15(M) connector.
2. This unit has the feature that when the input reference is removed, the internal reference is automatically switched in as the reference for the synthesizer.
3. Surface temperature of unit should be less than +65°C.
4. This unit will clean-up the input reference for $F_0 > 10$ Hz.

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PRODUCT DATA SHEET

FREQUENCY SYNTHESIZER

Model: TLSE-67807880-100K

Rev. D

02/15/18