

SLS2 SERIES



0.010 GHz to 15 GHz (IN BANDS)



FEATURES

- 10 dB below INTELSAT phase noise mask
- Ideal for use in dual conversion up and down converters
- 1 kHz standard step size
- Available in octave wide bands

OPTIONS

- Low cost
- Custom frequency bands
- External reference cleanup
- Custom step sizes
- Minature packaging

L3 Narda-MITEQ's SLS2 series of high spectral purity synthesizers offer a low price alternative for L, S, C and Ku-bands with the lowest phase noise. With standard 1 kHz step size output at all bands the SLS2 series synthesizers are ideal for dual conversion up and down converters. With +13 dBm output power and 60 dBc spurious suppression, the SLS2 series support the most stringent system applications. Consuming less than 4 Watt maximum from (+6.5 to 28 V) DC supply in the frequency-synthesis process.



SLS2 SERIES

SPECIFICATIONS

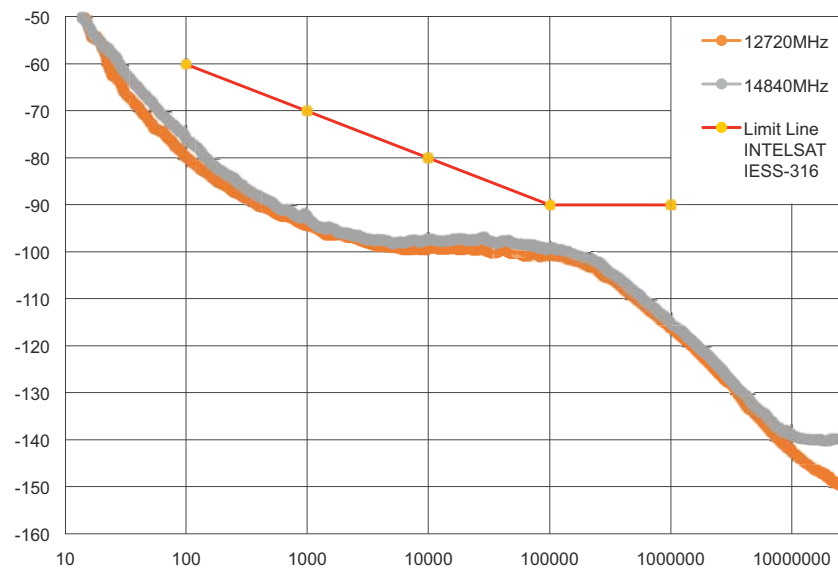
Output frequency range capabilities	0.010 GHz to 15 GHz (In Bands)
Examples of standard frequency bands (Contact factory for custom frequency bands)	1 GHz to 2 GHz 2 GHz to 4 GHz 3 GHz to 6 GHz 4 GHz to 8 GHz 9 GHz to 11 GHz 10.405 GHz to 11.450 GHz 11.450 GHz to 12.570 GHz 12.720 GHz to 14.840 GHz
Step size	1 kHz (custom step sizes available)
Output power	+13 dBm minimum
Output power variation	± 2 dBm
Output harmonic in narrow band	-20 dBc maximum
Output harmonic in octave bandwidths	-15 dBc maximum
Output spurious	-60 dBc maximum
Phase noise	See graph
Input reference frequency Standard 10 MHz custom	10 MHz (Custom reference frequencies available from 1 MHz to 200 MHz). Also available is programmable varying reference.
Input reference power level	0±3 dBm
Input impedance	50 ohms
Load VSWR	1.5:1 nominal
DC power requirements	+6.5 volts to +28 volts at 3.5 W typical, 4 W maximum Single rail supply
Phase lock alarm	TTL High in lock, low out of lock
Frequency control	Serial RS-422 (4 wire) USB

PHASE NOISE SPECIFICATIONS (dBc/Hz), typical	OFFSET (Hz)						
	10	100	1K	10K	100K	300K	1M
12700 MHz	-42	-77	-94	-99	-100	-105	-116
14840 MHz	-42	-75	-92	-97	-98	-104	-115



PHASE NOISE SPECIFICATIONS

PHASE NOISE CHARACTERISTICS



GENERAL SPECIFICATIONS

MECHANICAL SPECIFICATIONS

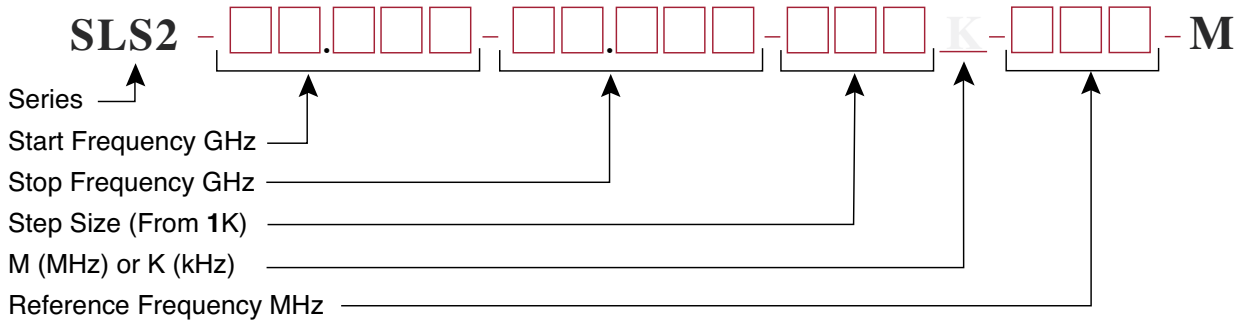
Outline drawing 218213
Size 2.0" x 2.0" x 0.61"
Weight ≤ 100 grams
RF connectors SMA female
DC connectors..... 9-pin JST™ (mating connector PHR-9 or equivalent)

ENVIRONMENTAL SPECIFICATIONS

Temperature
Operating..... -40 °C to +80 °C
Storage -50 °C to +100 °C
Humidity 95% at 40 °C noncondensing
Shock (survival) 30 g's, 10 ms pulse
Vibration (survival) 20 Hz to 2000 Hz
random to 4 g's rms

SLS2 SERIES

ORDERING INFORMATION



EXAMPLE: Part Number SLS2-12.70-14.480-1K-010M part number for frequency synthesizer covering 12.720 GHz to 14.480 GHz with a step size of 1 kHz and a reference frequency of 10 MHz.

OUTLINE DRAWING

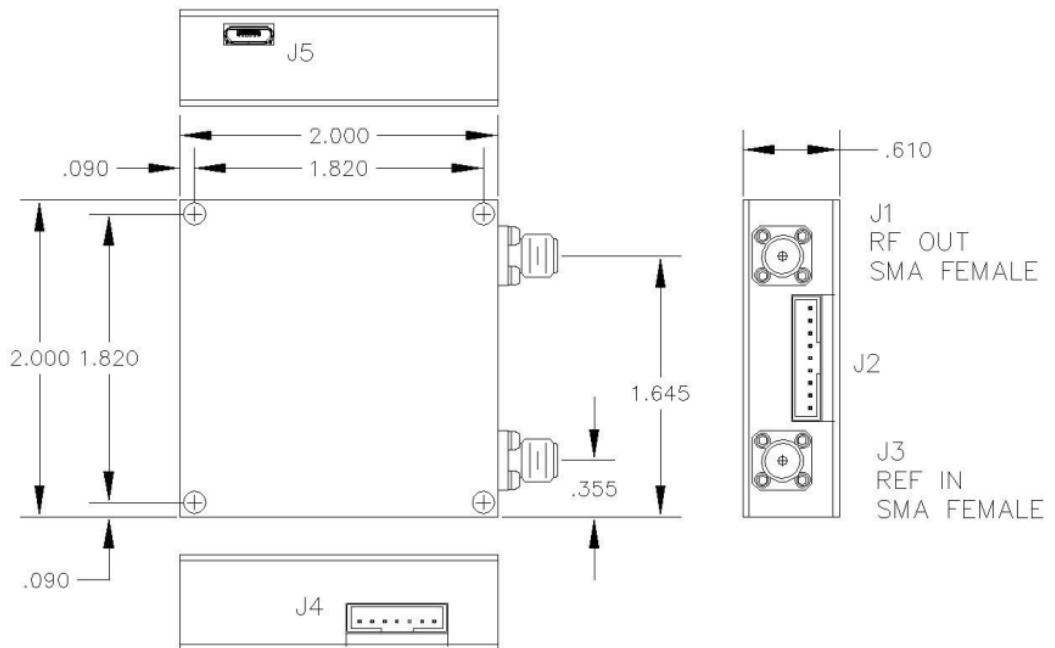
218213

J2 DC PWR/CONTROLS
9 PIN JST

PIN #	SIGNAL
1	+15V_IN
2	GND
3	TTL_ALARM
4	PHASE_VOLT
5	GND
6	RS422_RX+
7	RS422_RX-
8	RS422_TX-
9	RS422_TX+

J5 USB
MICRO-USB CONNECTOR

PIN #	SIGNAL
1	+5V_USB
2	USB_D-
3	USB_D+
4	NC
5	GND



Note: Dimensions shown are in inches and those shown in brackets [] are in millimeters.

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