

0.04 to 15 GHz Flight-Ready Phase-Locked Oscillator Model (see configurator)

ELECTRICAL SPECIFICATIONS

INPUT PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
Output Frequency Range	Fixed Single Frequency	GHz	0.04	-	15
Output Power	-	dBm	13	-	-
Output Power Variation	-	dB	-2	-	+2
Output Harmonic	-	dBc	-20	-	-
Output Spurious	2 to 18 GHz	dBc	-60	-	-
Phase Noise	See table	-	-	-	-
Input Reference Frequency	Note 1	MHz	1	-	200
Input Reference Power	-	dBm	-3	-	+3
Input Impedance	-	Ω	-	50	-
Load VSWR	-	-	-	1.5:1	-
DC Voltage	Customer Selected	V	4	-	8
DC Current	-	mA	-	460	550
Phase Lock Alarm	Note 2	-	-	-	-

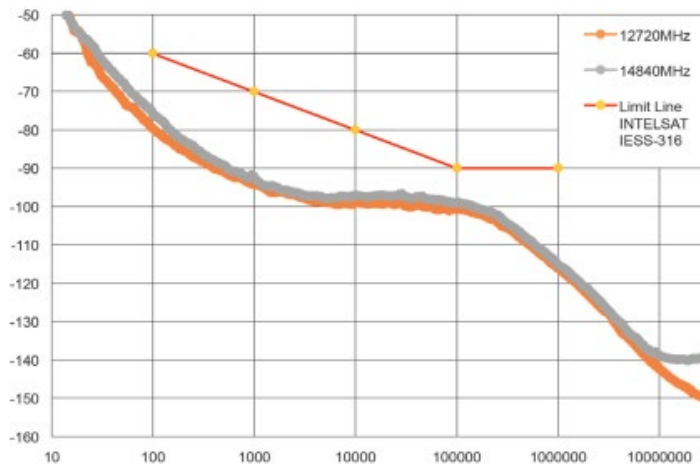
Note 1: Internal reference available.

Note 2: TTL alarm (Options for High in Lock, Low no Lock or Low in Lock Hi no Lock)

Note 3: For model number configuration and options contact factory

Phase Noise Specification		Offset (Hz)					
Output Frequency (MHz)	Units	10	100	1k	10k	100k	1 MHz
1,000	dBc/Hz, Typical	-65	-97	-109	-117	-119	-135
3,000	dBc/Hz, Typical	-56	-88	-101	-107	-111	-128
6,000	dBc/Hz, Typical	-53	-85	-97	-103	-105	-125
10,000	dBc/Hz, Typical	-47	-79	-93	-99	-101	-120
15,000	dBc/Hz, Typical	-45	-77	-90	-95	-97	-115

TYPICAL PHASE NOISE DATA



NOTE: Test data supplied at 25°C



Narda-MITEQ SPLO Series phase-locked source offers excellent phase noise and spurious performance in a miniature 2.25" width x 2.25" length x 0.75" height and is available in fixed frequencies from 40 MHz to 15 GHz. Units can operate from either external reference, or internal TCXO with stability of 1 PPM.

KEY FEATURES

- > Designed for Space Flight
- > 20 or 30 kRad total dose radiation tolerance
- > 40 MeV Single Event
- > Various Screening Options
- > Phase locked to external standard or internal crystal reference
- > Low phase noise
- > Low G sensitivity
- > Small Package
- > 100% burn-in and temperature testing
- > Removable SMA connectors

This material consists of Narda-MITEQ general capabilities information and does not contain controlled technical data as defined within the International Traffic in Arms (ITAR) Part 120.10 or Export Administration Regulations (EAR) Part 734.7-11.

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SCREENING

Included Standard Screening (Meets Requirements of NASA EEE-INST-002 Level 3, SCD, non-hermetic)

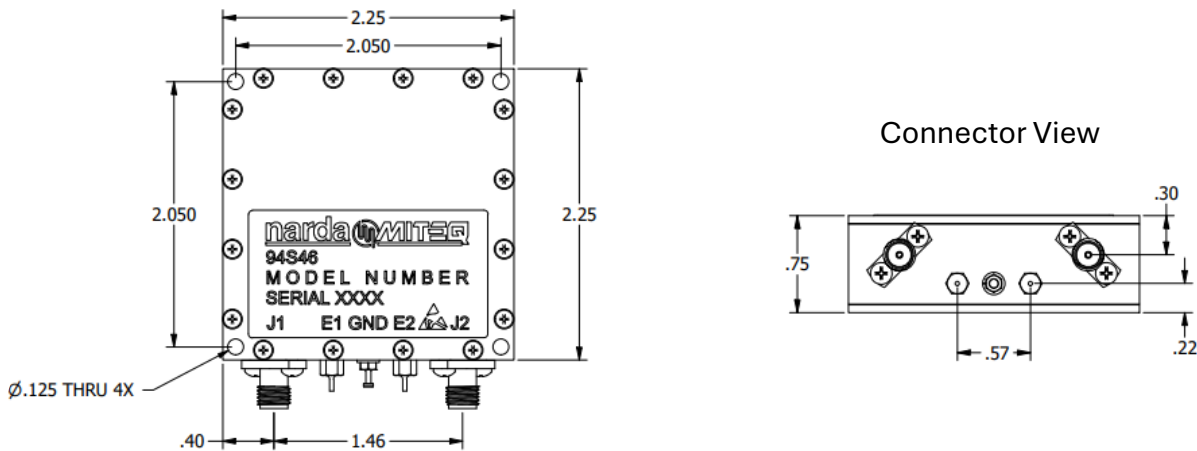
PARAMETERS	TESTING METHOD
Temperature Cycling	1010, Condition B, 10 Cycles
Mechanical Shock	MIL-STD-883 Method 2002, Condition B (Y1 only)
Burn-in	MIL-STD-883 Method 1015, 48 hours at 80 °C minimum

****Screening Options**

- EM = Engineering Model (No Screening)
- B = Class level B, MIL-STD-883 Method 5004 (modified, non-hermetic)
- S = Class level S, MIL-STD-883 Method 5004 (modified, non-hermetic)
- N2 = NASA EEE-INST-002, C4, Table 2, Level 2, SCD, Non-hermetic
- N1 = NASA EEE-INST-002, C4, Table 2, Level 1, SCD, Non-hermetic

** Screening options do not include Element Evaluation, Group B, Group C, or Group D Testing. Consult factory to add these requirements. Engineering Models are built using same materials and processes but are not screened and do not have radiation hardness and not recommended for flight.

OUTLINE DRAWING



NOTE: All dimensions shown in inches
Type SMA Field Replaceable Female
This Outline is preliminary and subject to change.

MAXIMUM RATINGS

Specification Temperature:	+25°C	Estimated Mass	200 grams
Operating Temperature :	-10 to +60°C	G- sensitivity	1.5 ppb/g (worst axis)
Storage Temperature:	-50 to +100°C		

NOTE: This datasheet is preliminary. Specification, outline, and screening are subject to change. Please inquire with factory for advanced orders.

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