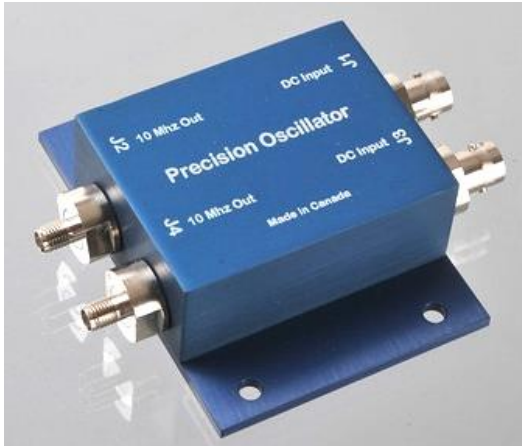


System Interface Products

POS – Precision 10 MHz Oscillator



Precision OCXO (Ovenized) 10MHz Oscillator

How to order a POS - Precision Oscillator

Module

POS - Precision Oscillator

10MHz Precision Oscillator Connectors

J1: DC in to power Oscillator

J2: 10MHz out (in-phase)

J3: DC out to power LNB/BUC (MuxTee)

J4: 10MHz out (in-phase)

POS - BSBS-AM

Optional

" " - (blank) Standard version

EP - Enhanced Phase Noise

AM - Optimized for Airborne

Connectors available:

J1, J3: DC Supply

B - BNC (preferred)

S - SMA

N - N

T - TNC

ft - feedthru

J2, J4: 10MHz

B - BNC (industry standard)

S - SMA (recommended for outdoor use)

N - N

BNC-to-pigtail adapters and BNC-to-binding post adapters for DC sold separately. See SIP price list for part number and price.

Quiet, Stable, Pure, and Enduring

The Orbital **POS - Precision Oscillator** can be used alone or combined with other Orbital products such as the MT25/40 - Mux/Tee or SP10 - 10MHz Splitter to provide the 10 MHz source to synchronize your entire system. See our **POP** and **PODM** brochures. You can lock the signals of your LNB, BDC, BUC, modem or VSAT to the same precise signal.

POS Features

Ovenized Oscillator (OCXO)

Orbital Research now has three OCXO Oscillators depending on your requirements:

- 1) Our standard offering for most applications
- 2) Our enhanced offering with better phase noise
- 3) Our Airborne offering with better immunity to vibration and a greater temperature range.

Functional

- Operates with LNBS, BDCs, VSATs, BUCs, and Modems
- Filters and conditions the DC power to eliminate extraneous signals coming in through the power supply.

Structural

- Machined from solid aluminum billet for strength & stability
- Blue Anodized finish for corrosion protection and excellent RF shielding/grounding
- Connectors are 'O' ring sealed for weather resistant operation
- RoHS & REACH compliant

The POS being ovenized, can draw as much as 350 mA during startup (about 15 minutes), as it heats to operating temperature.

Sales contact:

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1 604 419-8585

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System Interface Product (SIP): POS (OCXO) - Specifications

ELECTRICAL SPECIFICATIONS

Parameter		Specification		
Oscillator Specs		Standard	Enhanced	Airborne
10 MHz Reference	Frequency	10 MHz		
	Output Level	2 dBm		
	Stability over Temperature	$\pm 5 \times 10^{-8}$	$\pm 5 \times 10^{-8}$	$\pm 1 \times 10^{-8}$
	10 year aging	$\pm 5 \times 10^{-7}/\text{year}$	$\pm 5 \times 10^{-7}/\text{year}$	$\pm 1 \times 10^{-7}/\text{year}$
	Temperature Range	0°C to +50°C	0°C to +50°C	-40°C to +80°C
	Phase Noise 10Hz	-120 dBc/Hz	-120 dBc/Hz	-120 dBc/Hz
	100Hz	-145 dBc/Hz	-145 dBc/Hz	-150 dBc/Hz
	1 kHz	-152 dBc/Hz	-158 dBc/Hz	-158 dBc/Hz
	10 kHz	-155 dBc/Hz	-160 dBc/Hz	-165 dBc/Hz
	100 kHz	-155 dBc/Hz	-160 dBc/Hz	-165 dBc/Hz
	1 MHz	-155 dBc/Hz	-160 dBc/Hz	-165 dBc/Hz
	Harmonics	<-45 dBc		
	Port-to-Port Isolation	30 dB		
Power requirement	+12.5 to +18 VDC supplied through Oscillator DC input connector.			
Current Drain	350 mA max during warm-up. 125 mA max after warm-up.			

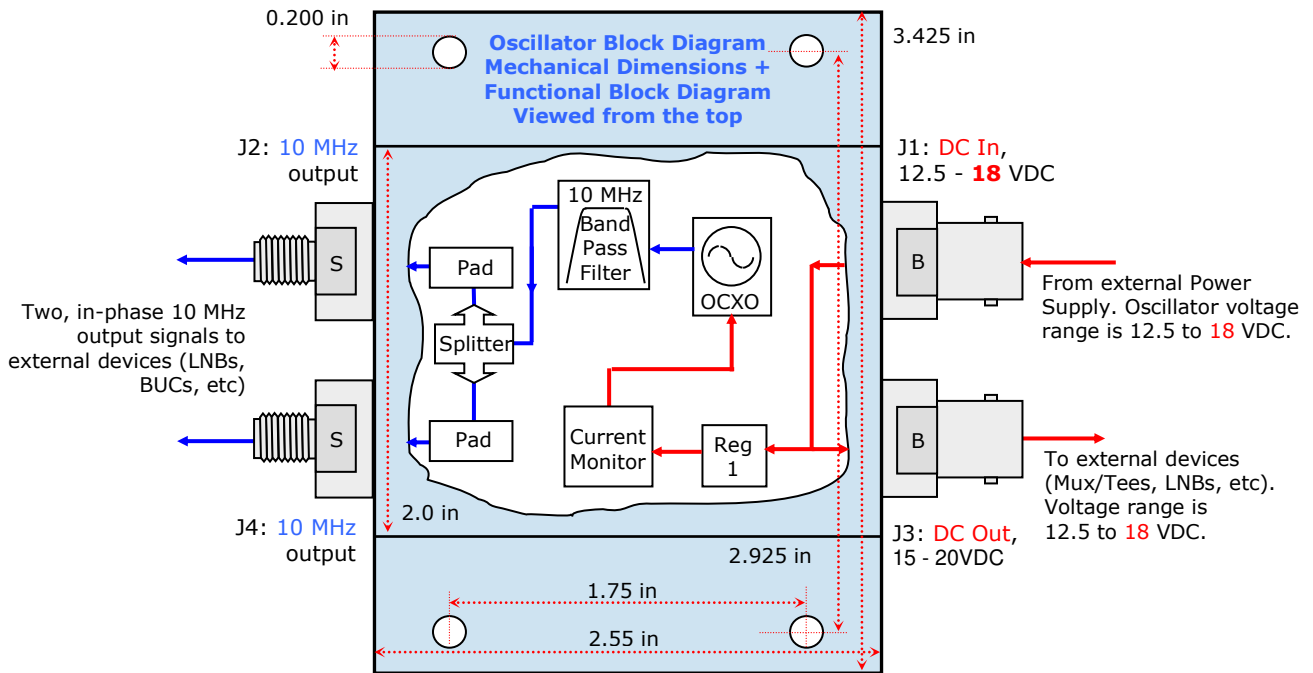
MECHANICAL SPECIFICATIONS

Size (case)	3.425(L) x 2.55(W) x 1.875(H) inches
Weight	15 oz
Paint / Color	Anodized Blue, MIL-STD-595

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	0°C to +50°C	0°C to +50°C	-40°C to +80°C
Relative Humidity	Up to 100% condensation and frost		
	RoHS & REACH		

System Interface Product: POS – Mechanical Diagram



**PS-2 Switching Power Supply
(not included with Oscillator)**

See Orbital brochures for PS-1 & PS-2 Series power supplies.

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