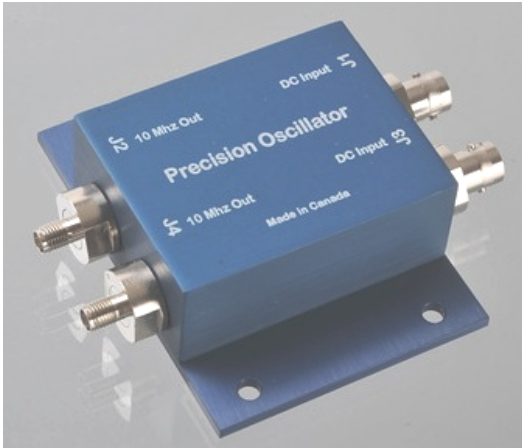


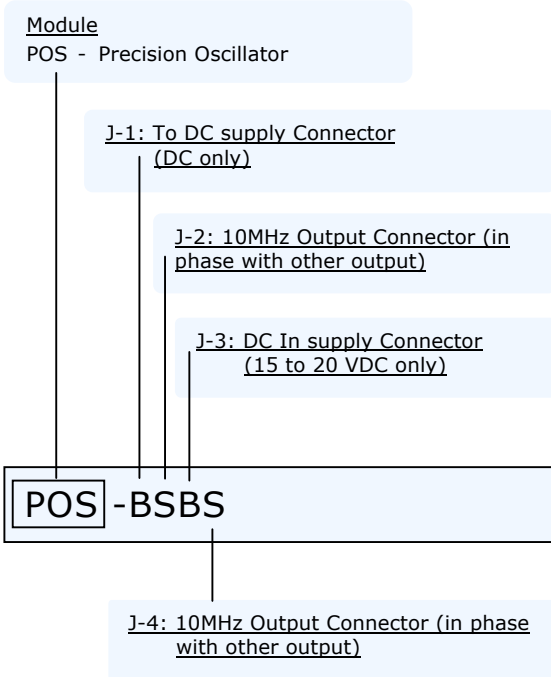
System Interface Products

POS - Precision Oscillator



10MHz OCXO Precision Oscillator

How to order a POS - Precision Oscillator



Connectors available:

J1, J3: DC Supply

B - BNC (preferred)
F - F
N - N

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** brochure. You can lock the signals of your LNB, BDC, BUC, modem or VSAT to the same precise signal.

A green LED shows that there is power to the Oscillator.

A red LED indicates that the Oscillator is warming up. Once the red LED turns off, the Oscillator is at the proper temperature.

POS Features

Ovenized Oscillator (OCXO)

- Exceptionally low phase noise -160 dBc/Hz @ 1 kHz
- Exceptionally low drift, 0.05ppm, 0 to 50°C
- Exceptionally stable, $\pm 1 \times 10^{-9}$ per day after 30 days
- High output level for service as master system oscillator
- Sine wave purity, low harmonic content

Functional

- Will operate with LNBS, BDCs, VSATs, BUCs, and Modems
- Will filter and condition the DC power to eliminate extraneous signals coming in through the power supply.

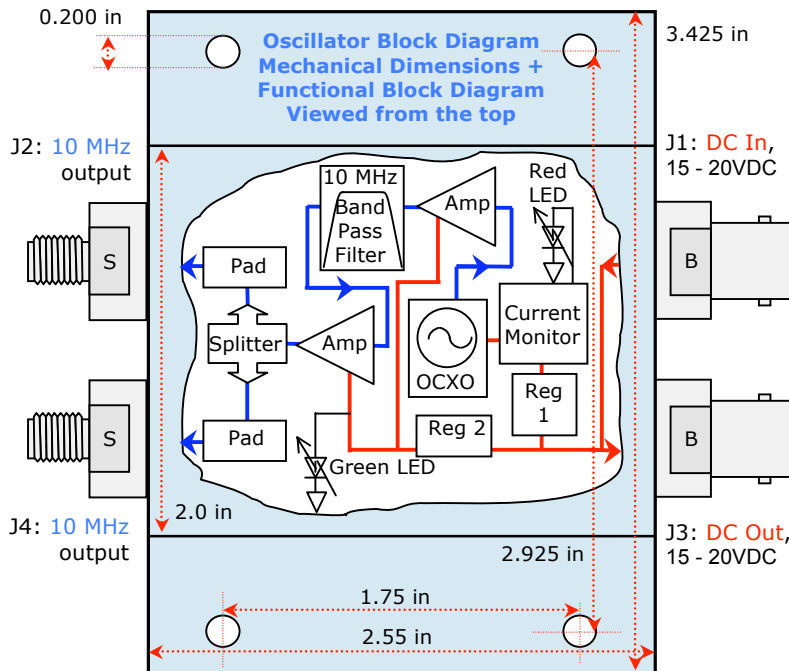
Structural

- Machined from solid aluminum billet for strength & stability
- Anodized finish for corrosion protection and excellent RF shielding/grounding
- Operation monitoring LEDs in gasket
- 'Back O Rack' mounting for ease of installation and lead dress (Reduces the mess of cables at the back of the rack and provides stability for cables)
- Connectors are 'O' ring sealed for weather resistant operation

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Orbital Oscillators: POS (OCXO) - Specifications



Electrical Specifications

10 MHz

Passband: 1-100 MHz (3 dB down)
 Thru Loss: 0.2 dB 10 MHz to LNB port
 Isolation: >90 dB 10 MHz to Rx port

DC

Filtering: Hash filter, low pass filter

10 MHz Oscillator

Frequency: 10 MHz
 Output Level: J2: +9 dBm
 J4: +9 dBm
 Stability: $\pm 5 \times 10^{-8}$, 0 to +50°C
 Aging: $\pm 1 \times 10^{-9}$ per day after 30 days
 $\pm 5 \times 10^{-7}$ per year after 180 days
 Phase Noise:
 10Hz -120 dBc/Hz
 100Hz -145 dBc/Hz
 1kHz -160 dBc/Hz
 10kHz -165 dBc/Hz
 100kHz -165 dBc/Hz

Power Specifications

Input DC Voltage: +15 to +20 V supplied via DC input connector (Green LED on)
 Current Drain: 350 mA max (warm-up: Red LED on)
 100 mA nominal (after warm-up)

Mechanical Specifications

Measurements: Tolerance ± 0.005 in.
 Size (case): 3.425l x 2.55w x 1.125h in.
 Size (with conn): 3.425l x 3.8w x 1.125h in.
 Weight: 10 oz
 Paint / Colour: Blue Anodized finish
 Mounting holes: 3/8" (5mm)
 Accepts standard rackmounting screws: 10/32 or 10/34

Environmental Specifications

Operating Temp: 0 to +50° Celsius
 Relative Humidity: Up to 100% condensation and frost

Power Supply (not included with POS)

See: PS1 brochure for North America
 PS2 brochure for Global



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

Featuring an ovenized oscillator (OCXO), the Precision Oscillator has been designed specifically for the satellite industry. Its sturdy case, anodized finish, small size and back-o-rack mounting system make it both enduring and easy to use. The Murray-style connectors guarantee the best possible connections for the life of the product.

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