

Orbital Master Oscillator Module



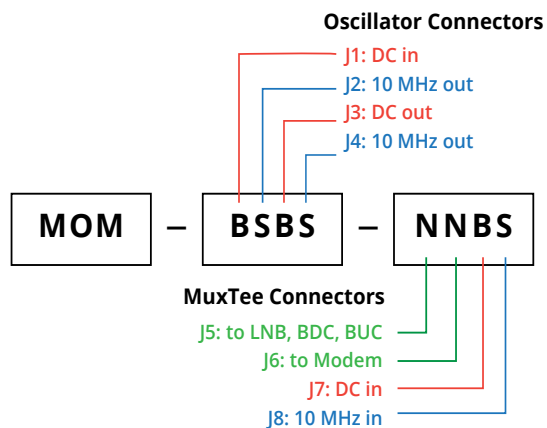
Master TCXO 10 MHz Reference Oscillator and BiasTee Multiplexer (MuxTee) in one package.

An Orbital Research Master Oscillator Module (MOM) is a stacked 10 MHz Oscillator and a MuxTee. This device allows insertion of its 10 MHz Reference Oscillator and external DC source to feed an external referenced LNB, BDC or BUC via the device coax connector.

Advantages include:

- Integrated device in small form factor for indoor or outdoor installations – 3.425L x 2.55W x 1.62H (inches)
- Industry Leading VSWR and thru loss specs for maximum power transfer
- Blocking of 10 MHz and DC signals from Modem to avoid interfering signals
- Reference signal can be distributed to other devices via 2nd output port (J4)
- Up to 4A of DC power transferred
- Independent oscillator and power supply provide immunity from ground loops, unwanted modulations, and transients
- Upgradable to add a second MuxTee to power a second LNB, BDC or BUC – See MODM Brochure
- Low Phase Noise and excellent stability for commercial Satcom applications

How to Order a MOM – Master Oscillator Module



Connectors Available

DC connectors: J1, J3, J7

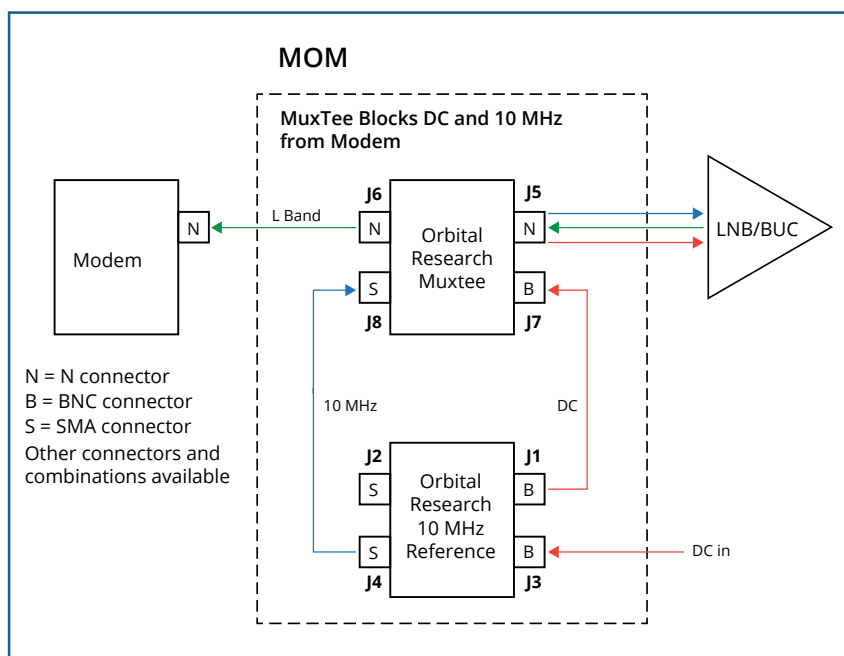
B – BNC | S – SMA | T – TNC | N – N | ft – feedthru

10 MHz connectors: J2, J4, J8

B – BNC | S – SMA | N – N

L-Band connectors: J5, J6

F – F75 ohm | S – SMA | T – TNC | N – N



SPECIFICATIONS		STANDARD
L-Band Band-pass		900 to 2100 MHz
Thru Loss		0.5 dB maximum
Return Loss		20 dB minimum
10 MHz Output level		+ 2 dBm
Stability over temperature		$\pm 1.5 \times 10^{-7}$
Aging		$\pm 5 \times 10^{-6}$ /year
Temperature Range		+10°C to +40°C
Phase Noise	100 Hz	-130 dBc/Hz
	1 kHz	-147 dBc/Hz
	10 kHz	-148 dBc/Hz
	100 kHz	-148 dBc/Hz
Power		+15 to +24 VDC
Standards		RoHS and Reach
Humidity		Up to 100% condensation and frost
Size		3.425(L) x 2.55(W) x 1.62(H) inches
Paint		FED-STD-595, anodized blue finish

Mounting options:

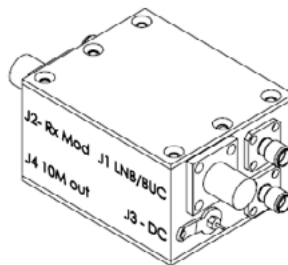
- With Mounting Plate (not shown)
- 19" rack mounting plate

Product used with:

- For a complete list of System Interface Products that can be used with a MOM, please visit our web site at <https://orbitalresearch.net/product/sips/>

Reduced form factor option:

- <1 RU high to fit inside 1 RU rack unit, 2.3L x 1.9W x 1.36H (inches)



Specifications subject to change

Please contact [Orbital Research](mailto:sales@orbitalresearch.net) for ordering information:
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