



Orbital Precision Oscillator Dual MuxTees



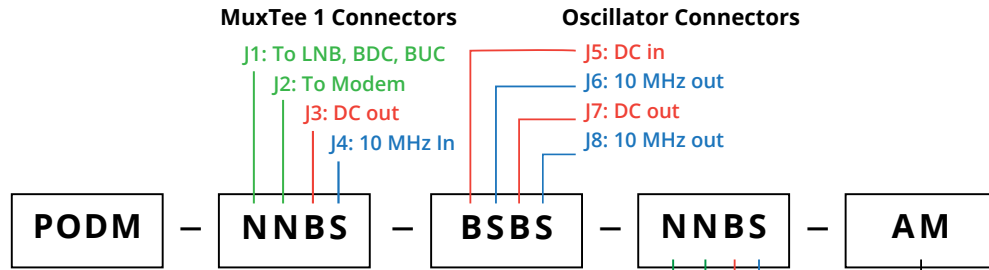
Precision OCXO 10 MHz Reference Oscillator and Dual BiasTee Multiplexers (MuxTees) in one package.

An Orbital Research Precision Oscillator Dual MuxTees (PODM) is a stacked 10 MHz Oscillator and two MuxTees. This device allows insertion of the 10 MHz Reference Oscillator and external DC source to feed a pair of external referenced LNB's, BDC's or BUC's via the device coax connector. Perfect for any transmit/receive, two polarization receive or two polarization transmit satcom terminal.

Advantages include:

- Integrated device in small form factor for indoor or outdoor installations – 3.425L x 2.55W x 2.72H (inches)
- A variety of Reference Oscillators to choose from to fit any application – video to higher order modulated data
- Industry Leading VSWR and thru loss specs for maximum power transfer
- Blocking of 10 MHz and DC signals from Modem to avoid interfering signals
- Up to 4A of DC power transferred
- Independent oscillator and power supply provide immunity from ground loops, unwanted modulations, and transients
- Exceptional quality ensures improved phase noise, Bit Error Rate (BER), and Carrier to Noise Ratio (C/N0).
- MIL-STD-188-164C compliant for PODM-AM variant

How to order a PODM



Connectors Available

DC connectors: J3, J5, J7, J11

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

10 MHz connectors: J4, J6, J8, J12

B - BNC | S - SMA | N - N

L-Band connectors: J1, J2, J9, J10

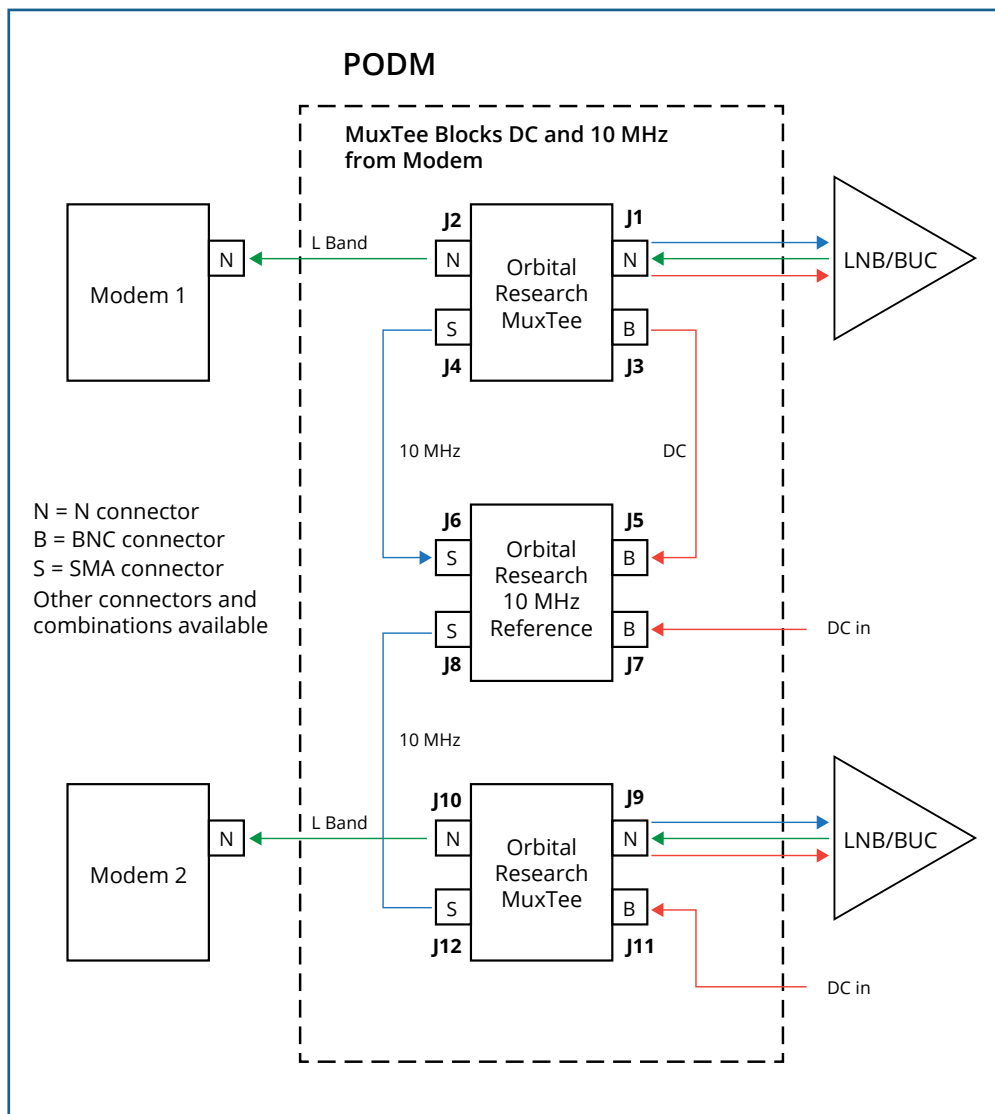
F - F 75 ohm | S - SMA | T - TNC | N - N

Versions

"_" - (blank) Standard Version

EP - Enhanced Phase Noise

AM - Optimized for Airborne or Mil-Std-188-164C requirements



SPECIFICATIONS	STANDARD	ENHANCED	AIRBORNE
L-Band Band-pass		900 to 2100 MHz 900 to 3500 MHz option	
Thru Loss		0.5 dB maximum	
Return Loss		20 dB minimum	
10 MHz Output level		+ 2 dBm	
Stability over temperature	$\pm 5 \times 10^{-8}$	$\pm 5 \times 10^{-8}$	$\pm 1 \times 10^{-8}$
Aging	$\pm 5 \times 10^{-7}/\text{year}$	$\pm 5 \times 10^{-7}/\text{year}$	$\pm 1 \times 10^{-7}/\text{year}$ $\pm 5 \times 10^{-10}/\text{day}$ (option for 0.2 ppb/day)
Allan deviation			$\pm 1 \times 10^{-11}$ Tau = 1 sec
Temperature Range	0°C to +50°C	0°C to +50°C	40°C to +80°C
Phase Noise			
	100 Hz	-145 dBc/Hz	-145 dBc/Hz
	1 kHz	-152 dBc/Hz	-158 dBc/Hz
	10 kHz	-155 dBc/Hz	-160 dBc/Hz
	100 kHz	-155 dBc/Hz	-160 dBc/Hz
	1 MHz	-155 dBc/Hz	-160 dBc/Hz
Power		+12.5 to +18 VDC +24 VDC option	
Standards	RoHS and Reach, MIL-STD-188-164C for Airborne Version		
Humidity	Up to 100% condensation and frost		
Size	3.425(L) x 2.55(W) x 2.72(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 PODM, please visit our web site at <https://orbitalresearch.net/product/sips/>

Specifications subject to change

Please contact Orbital Research for ordering information:

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