



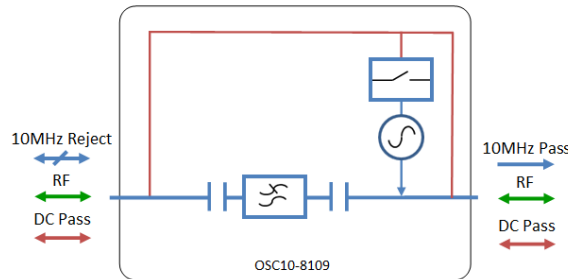
Model Number:
OSC-10-8109

RF Components

10 MHz Oscillator

with L-band and DC multiplexer / bias TEE

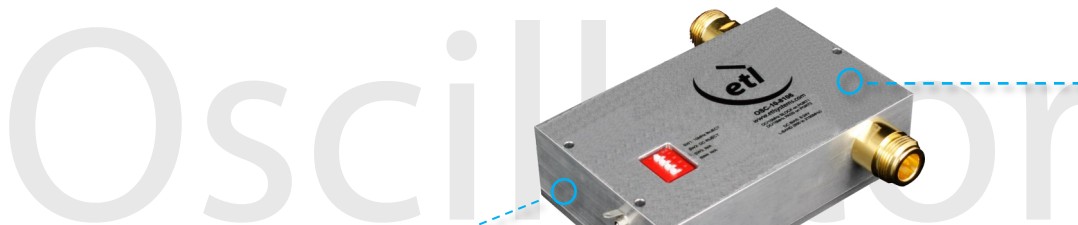
850 - 2150 MHz



- 10 MHz ovenised oscillator
- L-band, 10 MHz & DC multiplexed on output
- Input RF port to take L-band signal & multiplex with high stability 10MHz internal source
- 10MHz independently controlled by ON/OFF switch
- Powered via the RF input port, (also fed to the output port)

Available with RF connector options:

- 50 Ω SMA
- 50 Ω N-type
- 50 Ω BNC
- 75 Ω BNC
- 75 Ω F-type

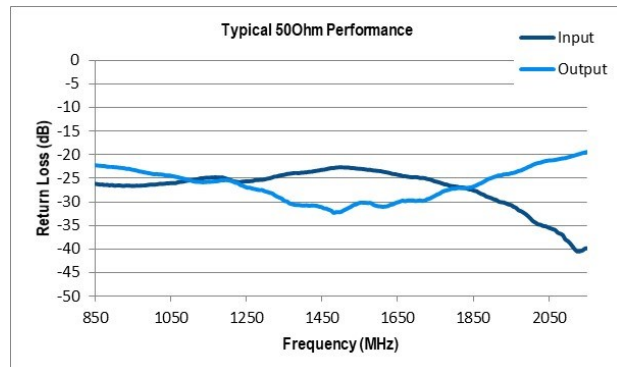
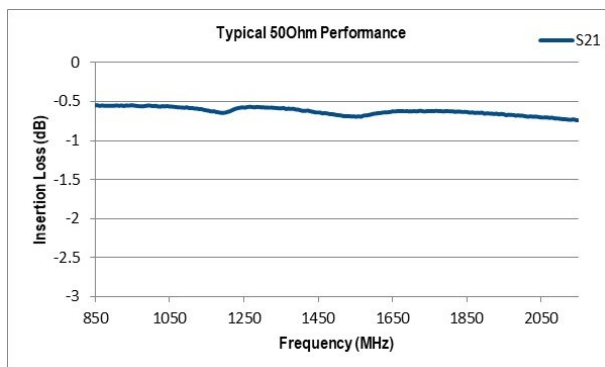


Compact
Housed in rugged compact enclosure

850-2150 MHz
Operating frequency range.

RF Parameters						
OSC-10-8109	S5S5	N5N5	B5B5	B7B7	F7F7	
Frequency Range	850 - 2150 MHz					
RF Connectors	50Ω SMA	50Ω N-Type	50Ω BNC	75Ω BNC	75Ω F-Type	
Mean Insertion Loss (dB)	0.7±0.3	0.7±0.3	0.7±0.3	0.8±0.3	0.8±0.3	
Return Loss (dB)	Typ.	16	16	14	10	10
	Min	12	12	12	8	8
10MHz Rejection is -60dB*						

Typical 50 ohm Performance



Broadcast



Marine Oil & Gas



SNG & VSAT



Satellite Teleport





RF Components

Model Number:
OSC-10-8109

10 MHz Oscillator with L-band and DC multiplexer / bias TEE

Environmental		
Operating Temperature	0°C to +55°C	
Storage Temperature	-20°C to +75°C	
Location	Indoor use Only	
Humidity	Max	85% non-condensing
Altitude	Max	10,000 feet

Oscillator Characteristics	
Frequency Stability	
Over temperature*	$< \pm 3 \times 10^{-8}$
Over time (per year)	$< \pm 5 \times 10^{-8}$
Short Term Stability (per second)	$< \pm 5 \times 10^{-12}$
Load change	$< \pm 5 \times 10^{-10}$
Power Supply Variations	$< \pm 2 \times 10^{-10}$
Stability with Aging	
Per Day	$< \pm 5 \times 10^{-10}$
Per Year	$< \pm 5 \times 10^{-8}$

*Within the temperature range 0°C to +55°C

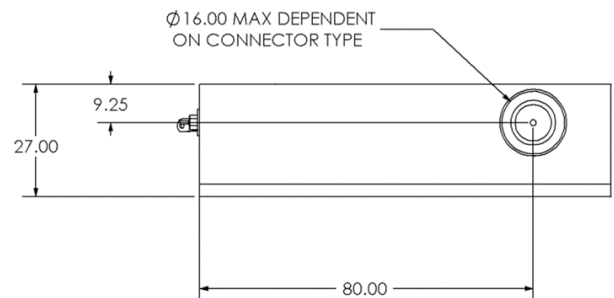
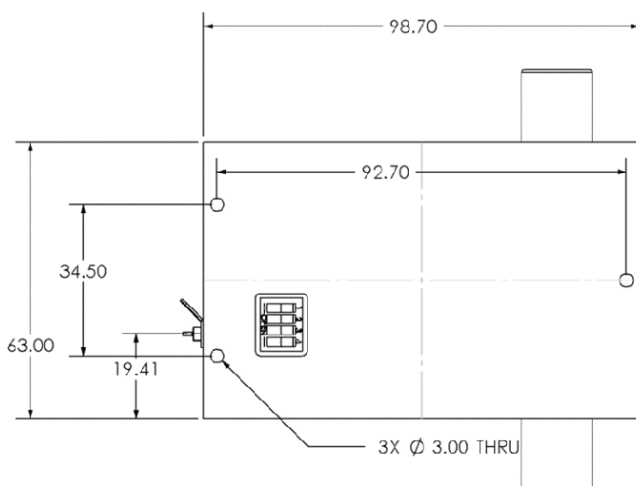
! Operation beyond these limits may cause instantaneous and permanent damage.

Max Operating Parameters		
Input RF Power	+36 dBm (4W)	
DC Voltage	32V	
DC Current	Max	3.5A
DC Consumption	1.0A Start up / 400 mA Steady State	

Phase Noise Characteristics (dBc/Hz)	
1Hz	<-95
10Hz	<-125
100Hz	<-145
1000Hz	<-150
10000Hz	<-155

10MHz Source Characteristics		
Frequency Setting	10±0.000001 MHz	
Output Power Level (dBm)	5±5	
Output Type	Sinewave	
Harmonic Rejection (dB)	2nd	>60
	3rd	>50
	4th	>60
	5th	>60

Physical Dimensions (mm)



Note: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved specification accuracy. Switch 2,3 & 4 not used on this model.

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