

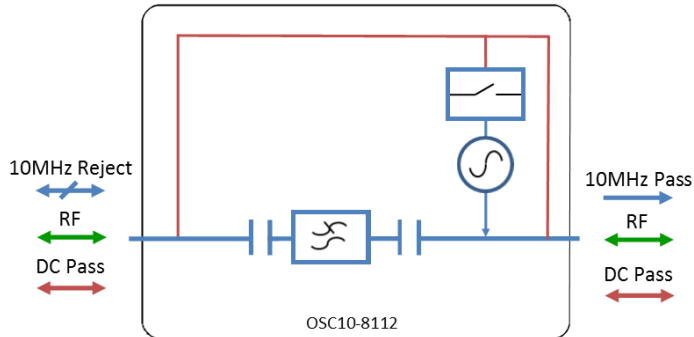


Model Number:  
**OSC-10-8112**

RF Components

# 10 MHz Oscillator

## 850 - 2150 MHz



- 10 MHz ovenised oscillator
- L band, 10MHz and DC multiplexed output
- Input RF port ito take L band signal & multiplex with high stability 10MHz source
- Option to insert DC onto the output port
- 10MHz is independently controlled by switches
- DC is always on

Available with RF connector options:

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



**850-2150 MHz**  
Operating frequency range.

**Compact**  
Housed in rugged compact enclosure

RF Parameters						
OSC-10-8112		S5S5	N5N5	B5B5	B7B7	F7F7
Frequency Range		850 - 2150 MHz				
RF Connectors		50Ω SMA	50Ω N-Type	50Ω BNC	75Ω BNC	75Ω F-Type
Insertion Loss (dB)	Typ.	0.7	0.7	0.7	0.7	0.7
	Max.	1.2	1.2	1.2	1.2	1.2
Output Level (dBm)		0 ± 2.5	0 ± 2.5	0 ± 2.5	0 ± 2.5	0 ± 2.5
Input Return Loss (dB)	Typ.	16	16	15	12	12
	Min	10	10	10	8	8
Output Return Loss (dB)	Typ.	16	16	15	10	12
	Min	10	10	10	8	8

10MHz Rejection is -65dB\*  
\*to ports which are applicable

### Broadcast



### Marine Oil & Gas



### SNG & VSAT



### Satellite Teleport



**Technical specifications and operating parameters**

Oscillator Characteristics	
Frequency Stability	
Over temperature*	< ± 3x10 <sup>-8</sup>
Over time (per year)	< ± 5x10 <sup>-8</sup>
Short Term Stability (per second)	< ± 1x10 <sup>-11</sup>
Load change	< ± 5x10 <sup>-9</sup>
Power Supply Variations	< ± 5x10 <sup>-9</sup>
Stability with Aging	
Per Day	<± 2x10 <sup>-9</sup>
Per Year	<± 5x10 <sup>-7</sup>

Phase Noise Characteristics (dBc/Hz)	
1Hz	<-85
10Hz	<-115
100Hz	<-140
1000Hz	<-150
10000Hz	<-155

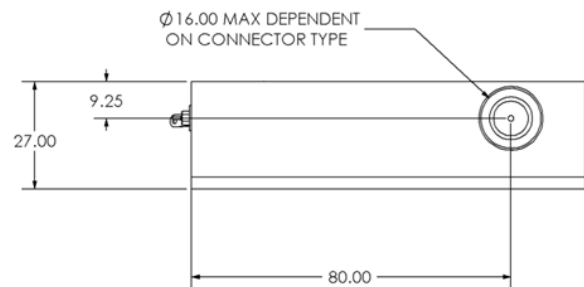
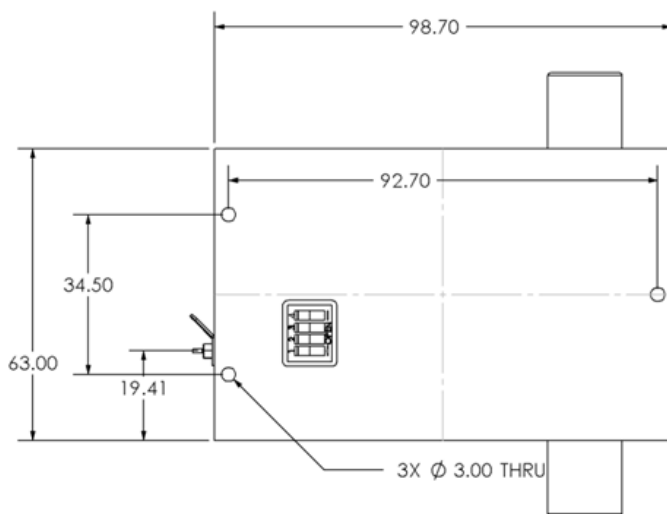
10MHz Source Characteristics		
Frequency Setting	10±0.000001 MHz	
Output Type	Sinewave	
Harmonic Rejection	2nd	>50 dB
	3rd	>40 dB
	4th	>45 dB
	5th	>60 dB

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

Max Operating Parameters		
Input RF Power	+36 dBm (4W)	
DC Voltage	26V on Bias Port 24V on RF input	
DC Current	Max	3A on DC inject
DC Consumption	Steady State Consumption <60mA Peak @ warm up <200mA	

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

**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.