

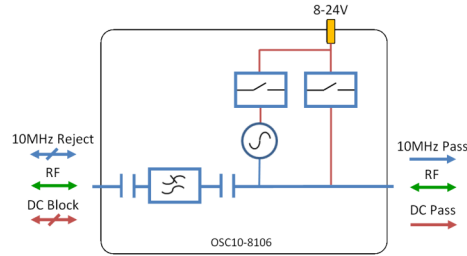


RF Components

# 10MHz Oscillator Mux Tee

## 850 - 2150 MHz

Model Number:  
**OSC-10-8106**



- 10MHz & DC multiplexed output
- 10MHz source with option to insert DC onto output port
- 10MHz & DC independently switch controlled

Available with RF connector options:

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

**8-24V**  
External DC  
powering



**Compact**  
Housed in  
rugged compact  
enclosure

**850-2150 MHz**  
Operating frequency  
range. L-Band ready

RF Parameters					
OSC-10-8106-XXXX	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)	0.3±0.3	0.3±0.3	0.3±0.3	0.5±0.3	0.5±0.3
Flatness ± (dB)	0.2	0.2	0.2	0.8	0.8
Input Return Loss (dB)	Typ.	18	18	18	12
	Min	14	14	14	8
Output Return Loss (dB)	Typ.	18	18	15	10
	Min	10	10	10	6
10MHz Rejection is -65dB* *to ports which are applicable					

### Broadcast



### Marine Oil & Gas



### SNG & VSAT



### Satellite Teleport



**Technical specifications and operating parameters**

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	+36dBm (4W)
DC Voltage	26V on Bias Port 24V on RF input
DC Current	1A on DC inject
DC Consumption	1000mA on startup, 400mA Steady State

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	$< \pm 5 \times 10^{-8}$

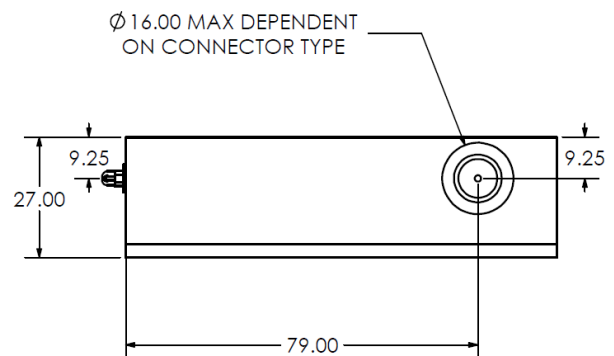
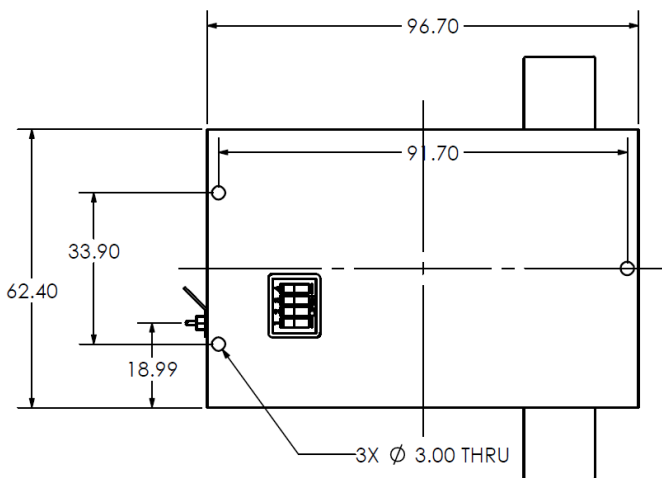
Phase Noise Characteristics (dBc/Hz)	
1Hz	<-95
10Hz	<-125
100Hz	<-145
1000Hz	<-150
10000Hz	<-155

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

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

**!** 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.