

Features
<ul style="list-style-type: none"> <li>• 10MHz Frequency</li> <li>• ±0.3ppb Frequency Stability</li> <li>• Sinewave</li> </ul>

Applications
<ul style="list-style-type: none"> <li>• Military Communication Equipment</li> <li>• Base Stations</li> <li>• Test Equipment</li> <li>• Synthesizers</li> <li>• Digital Switching</li> </ul>



Part Number	
	<b>SRO20S - 10.000M</b>

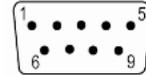
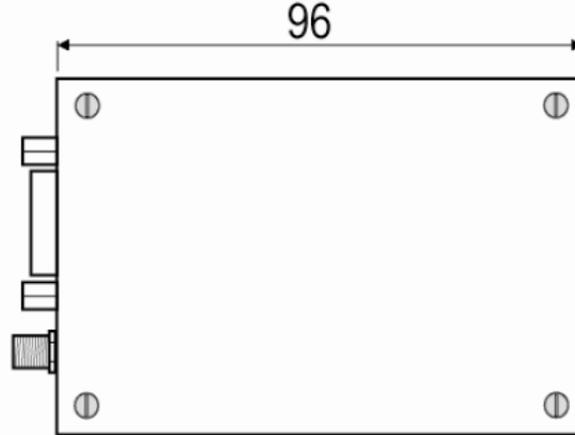
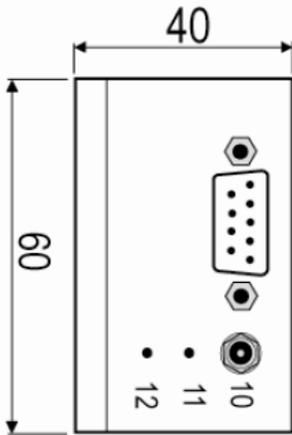
Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency	MHz		10.0		
Frequency Tolerance at +25°C	ppb	-0.05		+0.05	
Frequency Stability	ppb	-0.3		+0.3	
Short Term Stability	1 second	ppb	-0.003	+0.003	
	10 Seconds	ppb	-0.003	+0.003	
	100 Seconds	ppb	-0.002	+0.002	
	1 hour	ppb	-0.001	+0.002	
Aging	Day	ppb	-0.03	+0.03	
	Month	ppb	-0.04	+0.04	
Magnetic Field Sensitivity (Gauss)	ppb	-0.02		+0.02	
Retrace	ppb	-0.02		+0.02	
Operating Temperature	°C	-20		60	
Storage Temperature	°C	-40		85	
Supply Voltage*	V		12.0		*Will operate over 12V to 15V Range
Power Consumption Start up @ 25°C	A			1.8	22W @ 12V
Power Consumption Steady State	A			0.5	6W @ 12V
Warm-up Time	Minutes		5		@ 25°C
Pulling	ppb	-2.0		+2.0	
Control Voltage	V		2.5		
Input Impedance	Ω	10k			
Output Compatibility			Sine		
Drive Capability	Ω		50		
Output Level	dBm	5	7	9	
Phase Noise	@ 1Hz	dBc/Hz	-113		
	@ 10Hz	dBc/Hz	-138		
	@100Hz	dBc/Hz	-152		
	@1kHz	dBc/Hz	-155		
	@10kHz	dBc/Hz	-158		
Harmonics	dBc			-30	
Spurious	dBc			-80	

Note : The oscillator will detect if no control voltage is applied to Pin 7 and will automatically set the control voltage internally to 2.5V.

Note: Rx and Tx connections for RS232 communication of the status of the oscillator.

**Outline Drawing**

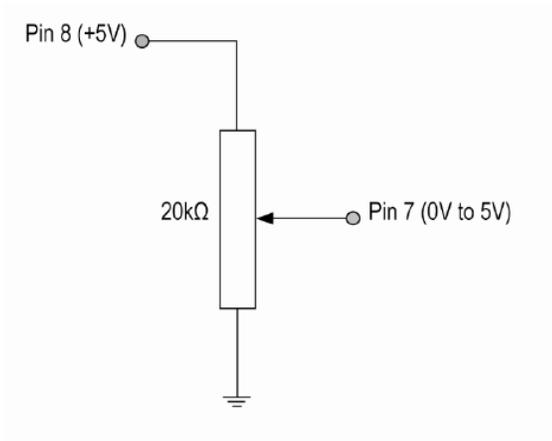
All dimensions are in millimeters (mm) unless otherwise noted. Drawings are not to scale.



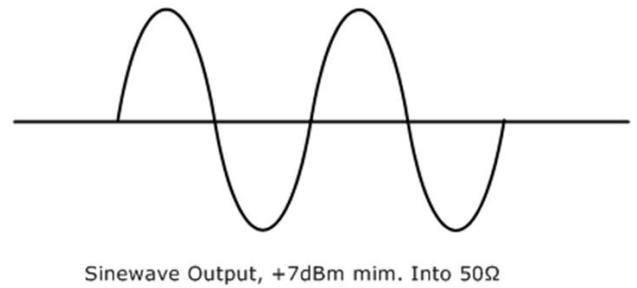
Connections:

- 1. Lock Status
- 2. Rx
- 3. Tx
- 4. +Vs
- 5. GND
- 6. GND
- 7. Frequency Control
- 8. Voltage Reference (+5V)
- 9. Not used
- 10. RF out (SMA)
- 11. On (LED)
- 12. Locked (LED)

**Test Circuit (Sinewave)**



**Waveform (Sinewave)**



**Specifications**

Temperature Cycling	MIL-STD-883, Method 1010, Condition B	Mechanical Shock	IEC60068-2-27, Test Ea: Acceleration of 50G peak Amplitude for 11ms duration.
Atmospheric Pressure	-60M to 4000M: 1x10 <sup>-13</sup> Mbar Max	Vibration	IEC 600068-2-06, Test Fc: 10Hz-55Hz 1.5mm
EMI	Compliant to FCC Part 15, Class B		