Dynamic Engineers Inc.
2550 Gray Falls Dr., Suite#128, Houston, TX, 77077 USA
TEL: 1-281-870-8822 EMAIL:Sales@DynamicEng.com

TCXO5440L-880MHz-A-V
UHF TCXO

DEI P/N: TCXO5440L-880MHz-A-V

Nominal Freq.: 880 MHz

GSL P/N:

Revision: 01

Date: 2017.06.28

Approved / Date	Checked / Date	Prepared / Date
Greg/2017.06	David/2017.06.28	Catherine/2017.06.28

Customer:

Customer P/N: N/A

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REVISION HISTORY (TCXO5440L-880MHz-A-V)

Revision #	Revised Page(s)	Revision Content	Date	Ref Number	Revision Requested by	Reviser
1		Initial Release	06/28/17	QA17-0194	Greg	Catherine

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Features and Benefits

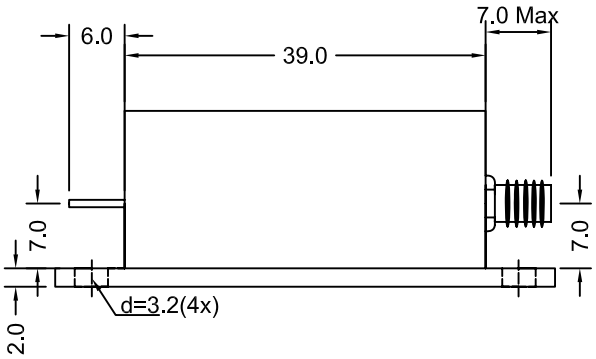
Frequency Stability: up to ±0.5 ppm over -40°C to +85°C
Sine Wave output

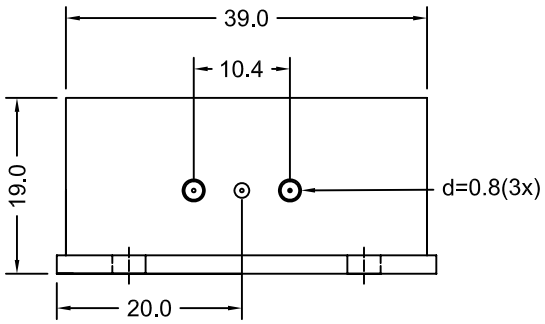
Typical Applications

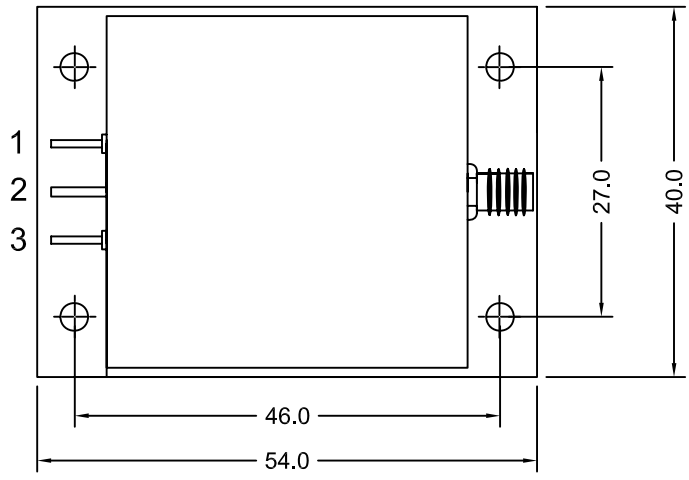
Highly stable microwave LO module

Mechanical Drawing & Pin Connections

Drawing No: MD160079-1







Pin Connection:

Pin#	Symbol	Function
1	Vc	Control Voltage
2	GND	GND
3	Vs	Supply Voltage
SMA	RF OUT	RF Output

Unit in mm
1mm = 0.0394 inches

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Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Nominal Frequency	F_0			880		MHz	
RF Output							
Output Waveform				Sine Wave			
Output Level			+7	+10		dBm	
Output Load				50		Ω	
Harmonics				-45	-40	dBc	
Sub harmonics (multiples of f_{out}/10)				-45	-40	dBc	Refer to Note 2
Spurious					-80	dBc	
Power Supply							
Supply Voltage	V_S		11.4	12.0	12.6	V	Refer to Note 3
Current Consumption		Steady State at +25°C			80	mA	
Frequency Adjustment Range							
Electronic Frequency Control (EFC)			±5			ppm	
EFC Voltage	V_C		0.5	2.5	4.5	V	
EFC Slope ($\Delta f / \Delta V_C$)				Positive			
EFC Input Impedance			100			kΩ	
Frequency Stability							
Vs Operating Temperature Range		Over -40°C to +85°C		±0.5		ppm	
Initial Tolerance at +25°C		@ +25°C			±5	ppm	
Vs Supply Voltage Change	V_S	V_S ±5%			±1	ppm	
Vs Load change	R_L	R_L ±5%			±1	ppm	
Long Term Aging Per Year					±1	ppm	
Phase Noise				Please consult DEI			
Environmental Conditions							
Operating Temperature Range	-40°C to +85°C						
Storage Temperature Range	-55°C to +125°C						
Size	54.0 x 40.0 x 19.0 mm						
Weight	60g max.						

Notes
1. Terminology and test conditions are according to IEC60679-1 and MIL-PRF-55310, unless otherwise stated
2. Depending on frequency multiplication factor may be lower or higher than 10
3. Other supply voltages available on request

Absolute Maximum Ratings

Parameter	Min.	Max.	Unit	Condition
Supply Voltage V_S	-0.5	V_S +10%	V	V_S to GND
Control Voltage V_C	-0.5	6	V	V_C to GND
Storage Temperature	-55	+125	°C	

Handling and Testing

Parameter	Procedure		Condition
Electrostatic Discharge (ESD)			
THD devices	IEC60749-26	HBM	2000V
SMD devices	IEC60749-27	MM	200V
Washable	Yes		
RoHS compliant	Yes		

Environmental Conditions

Test	IEC 60068 Part…	IEC 60679-1 Clause	MIL-STD-202G Method	MIL-STD-810F Method	MIL-PRF-55310D Clause	Test conditions (IEC)
Sealing tests (if applicable)	2-17	5.6.2	112E		3.6.1.2	Gross leak; Test Qc Fine leak; Test Qk
Solderability Resistance to soldering heat	2-20 2-58	5.6.3	208H 210F		3.6.52 3.6.48	Test Ta Method 1 Test Td1 Method 2 Test Td2 Method 2
Shock	2-27	5.6.8	213B	516.4	3.6.40	Test Ea, 3 x per axes 100g, 6 ms half-sine pulse
Vibration, sinusoidal	2-6	5.6.7.1	201A 204D	516.4-4	3.6.38.1 3.6.38.2	Test Fc, 30 min per axes, 10 Hz - 55 Hz 0,75mm; 55 Hz - 2 kHz, 10g
Vibration, random	2-64	5.6.7.3	214A	514.5	3.6.38.3 3.6.38.4	Test Fdb
Endurance tests - Aging - Extended aging		 5.7.1 5.7.2	108A		 4.8.35	 30 days @ 85°C, OCXO @25°C 1000h, 2000h, 8000h @85°C