



# Dynamic Engineers Inc.

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**C7 LC & &&G**

10MHz Oven Controlled Crystal Oscillator

DEI P/N: OCXO2522S

Nominal Freq.: 10 MHz

GSL P/N: \_\_\_\_\_

Revision: 01

Date: 2016.05.24

Approved / Date	Checked / Date	Prepared / Date
Greg/2016.05	David/2016.05.24	Catherine/2016.05.24

Customer: \_\_\_\_\_

Customer P/N: N/A



REVISION HISTORY (OCXO2522S)

Revision #	Revised Page(s)	Revision Content	Date	Ref Number	Revision Requested by	Reviser
1		Initial Release	05/24/16	N/A	Greg	Catherine



### Features and Benefits

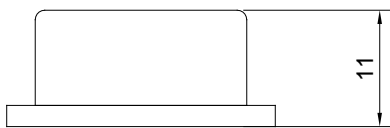
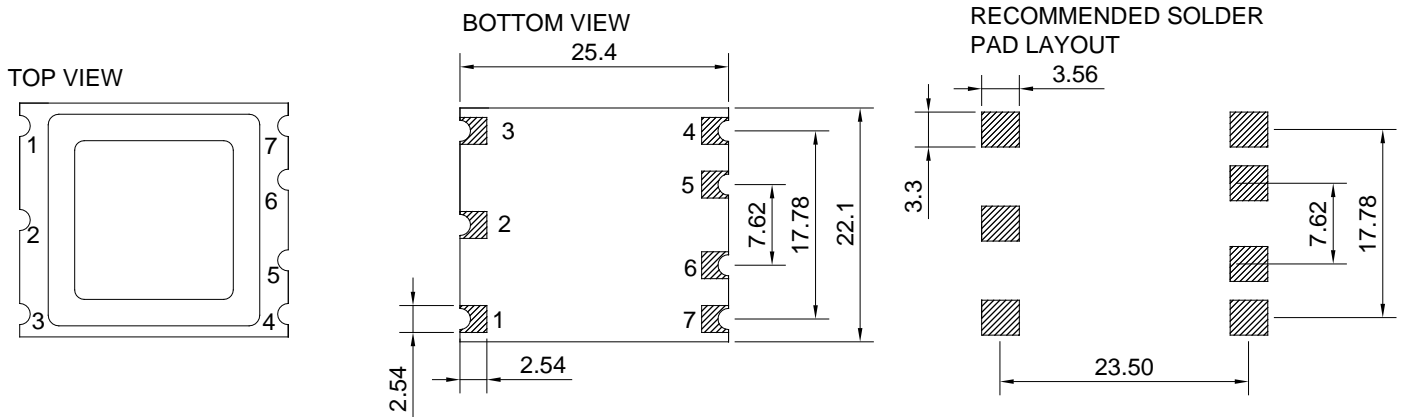
- 10MHz typical output
- Operating temperature -40°C to +85°C
- Less than +/- 0.5 ppb per day aging
- Less than +/- 50 ppb per year aging
- 25.4 x 22.1 x 11.0 mm typical

### Typical Applications

- SDH/SONET, Telecommunication base station
- Test and measurement equipment
- Synthesizer, Digital switch, Reference Timing Circuit

### Mechanical Drawing & Pin Connections

Drawing No: MD160044-1



Pin	Signal
1	Control Voltage
2	Reference Voltage
3	VCC
4	RF Output
5	Oven Monitor or NC
6	NC
7	GND

Unit: mm  
1mm=0.039inch



Specifications

OCXO Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency Range	F <sub>0</sub>			10.000000		MHz	
<b>RF Output</b>							
Output Waveform			Rectangular				
Level				HCMOS			
Output Level"1"			+2.4	+3.3		V	
Output Level"0"					+0.4	V	
Load				15		pF	
Duty Cycle		@+1.4V	45	50	55	%	
Spurious					-60	dBc	
<b>Power Supply</b>							
Voltage	V <sub>cc</sub>		3.135	3.3	3.465	V	5V input voltage is available.
Current		Warm-up			1000	mA	
Power		Steady State			1.2	W	@+25°C
<b>Reference Voltage</b>							
Reference Voltage			2.7	2.8	2.9	V	
Load			9			Kohm	
<b>Frequency Control*</b>							
Tuning Range		VCO @0			-0.5	ppm	
		VCO @+2.8V	+0.5			ppm	
Control Voltage	V <sub>c</sub>		0	1.4	2.8	V	
Slope				Positive			
Input Impedance			100			Kohm	
<b>Frequency Stability</b>							
Vs. Ambient		0°C to +70°C			+/-10	ppb	Ref. to +25°C, Refer to Freq. Stability Vs Temp. Range table.
Vs. Supply Voltage Change		+/-5% change			+/-0.5	ppb	
Warm-up		In 2 minutes @+25°C			+/-10	ppb	Ref. to 1hour
Aging	Per Day	After 30 Days			+/-0.5	ppb	
	Per Year				+/-50	ppb	
	10 Years				+/-0.4	ppm	
<b>Phase Noise</b>							
Phase Noise		@10Hz			-115	dBc/Hz	
		@100Hz			-130	dBc/Hz	
		@1KHz			-140	dBc/Hz	
		@10KHz			-150	dBc/Hz	

Table 1:

Temperature Range vs. Stability Availability					
Temperature range (°C)	±5ppb	±10ppb	±20ppb	Control Voltage	Reference Voltage
-30 to +70	Available	Available	Available	2.5V	N/A
-40 to +85	Available	Available	Available	2.5V	N/A