



## SPECIFICATION FOR RoHS 6 COMPLIANT LVPECL OUTPUT SMT OSCILLATOR MtronPTI P/N M2200S015

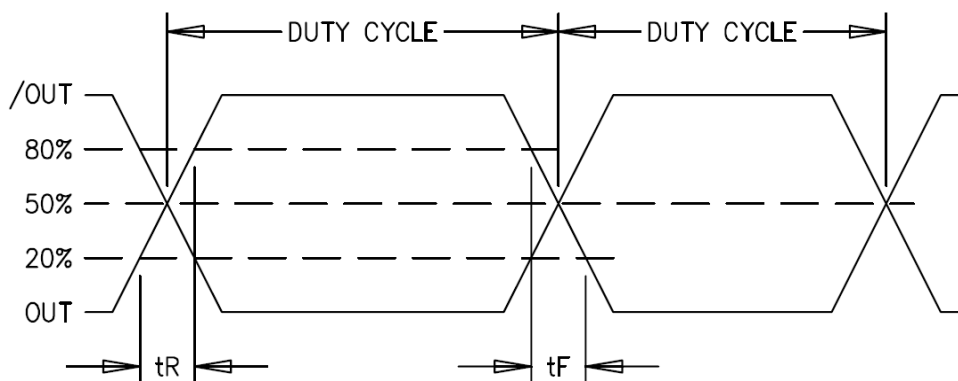
### Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F <sub>O</sub>		84.000000		MHz	
Frequency Stability						
vs Temperature	ΔF/F	-25		+25		Includes initial tolerance @ +25°C, deviation over operating temperature.
vs. Aging		-5		+5	ppm	1 <sup>st</sup> year
		-1		+1		Per year thereafter.
RF Output						
Output Type		LVPECL Compatible				
Output Load		50 Ω (V <sub>CC</sub> - 2)				
Symmetry (duty cycle)	T <sub>DC</sub>	45		55	%	Ref. to V <sub>CC</sub> - 1.3 V
Output Logic	V <sub>OH</sub>	V <sub>CC</sub> - 1.02			V	Logic Level “1”
	V <sub>OL</sub>			V <sub>CC</sub> - 1.63	V	Logic Level “0”
Rise/Fall Time	T <sub>R</sub> /T <sub>F</sub>			0.6	nS	From 20% to 80% of Waveform
Enable/Disable Logic				0.5 or N/C	V	Pin 2: Output Enabled
		80% V <sub>CC</sub>			V	Pin 2: Output to high-Z
Supply Voltage & Power Consumption						
Operating Voltage	V <sub>CC</sub>	3.135	3.3	3.465	V	
Operating Current	I <sub>CC</sub>			125	mA	
Other Parameters						
Phase Jitter (RMS)	Φ <sub>J</sub>			1.0	ps	12KHz to 20MHz



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### Output Waveform:



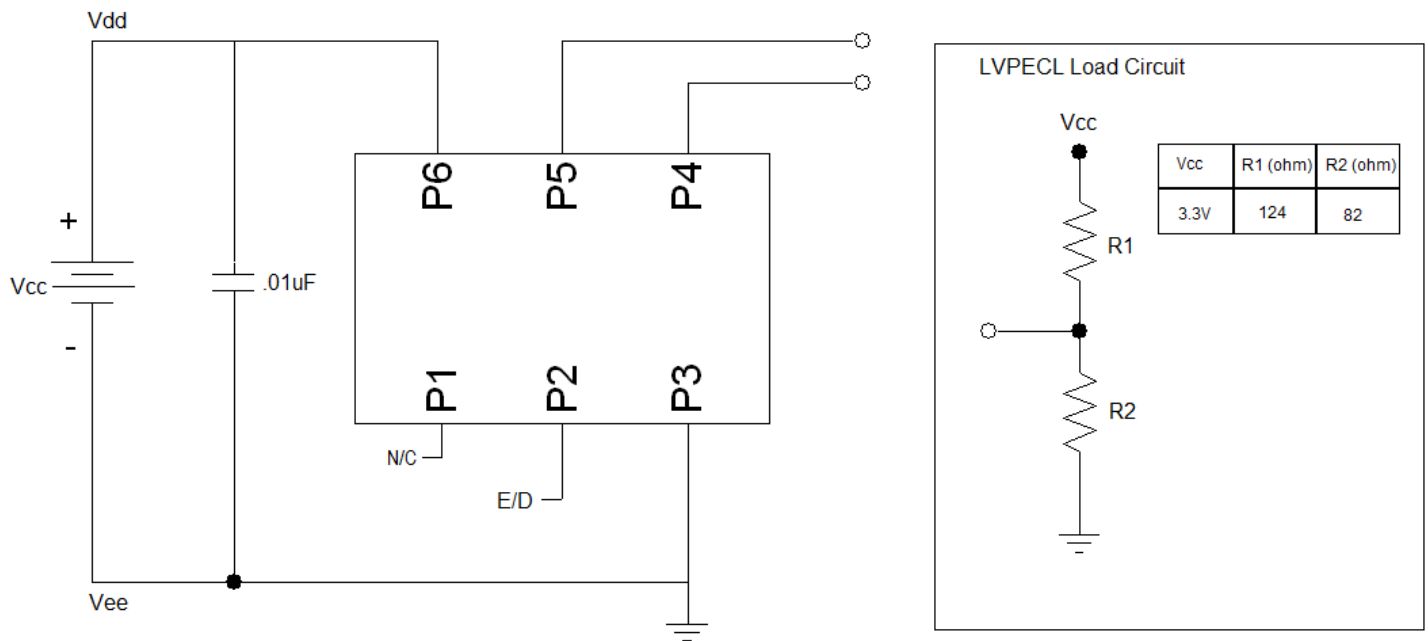
### Environmental Conditions:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Operating Temperature	T <sub>A</sub>	-40		+85	°C	
Storage Temperature	T <sub>S</sub>	-55		+125	°C	
Shock	Per MIL-STD-202, Method 213, Condition C (100 g's, 6 ms duration, ½ sinewave)					
Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)					
Thermal Cycle	Per MIL-STD-883, Method 1010, B (-55°C to 125°C, 15 min. dwell, 10 cycles)					
Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 <sup>-8</sup> atm cc/s of Helium)					
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Moisture Sensitivity Level (MSL)	MSL 1					
Solderability	Per EIAJ-STD-002					
Max. Soldering Conditions	See Figure 1.					
Package Type	9.0 X 14.0 X 4.7 mm 4 J-lead ceramic. RoHS compliant.					



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### Typical Test Circuit & Load Circuit Diagrams:



### Soldering Conditions:

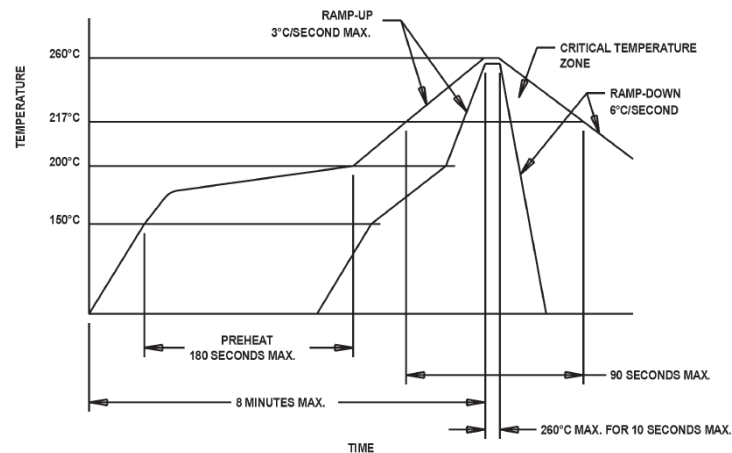


Figure 1



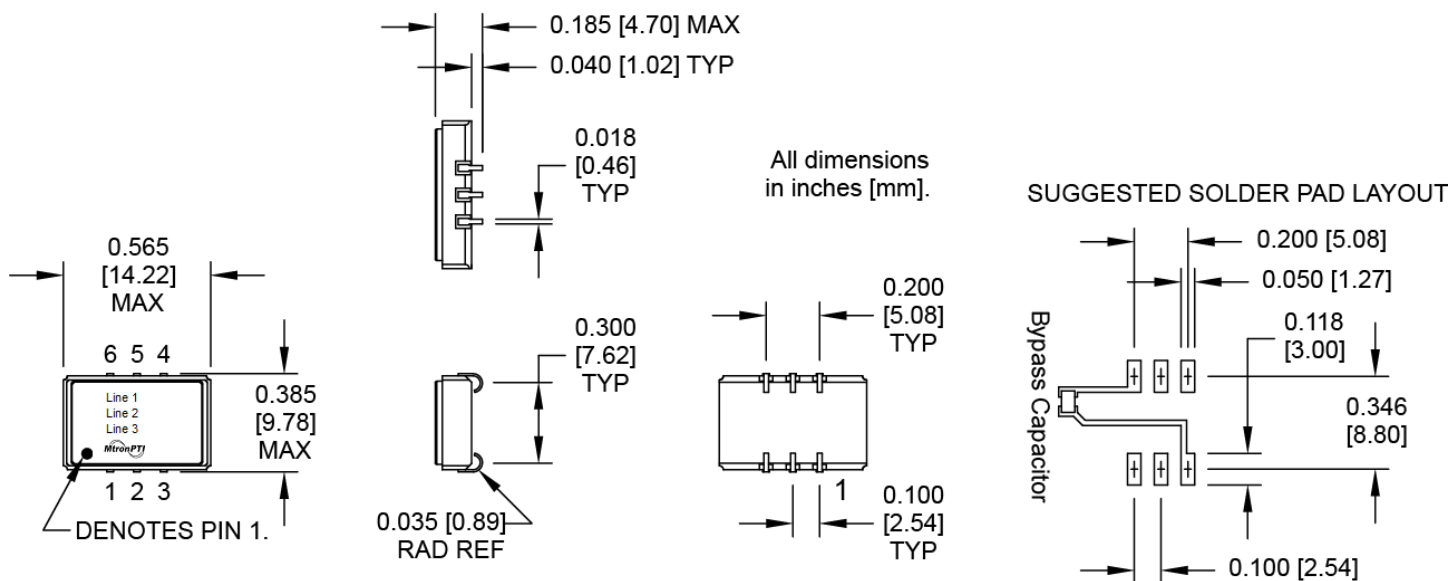
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### Mechanical, Marking, and Pin Out Information:

Part Marking	
Line 1	M2200S015
Line 2	84M0000
Line 3	yyww
Line 4	MtronPTI

Legend	
yy	Year
ww	Work week

Pin	Function
1	N/C
2	Enable/Disable
3	Ground
4	Output
5	Complementary Output
6	+V <sub>CC</sub>



### Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
03/16/17	0	MM	Original release.
11/09/17	A	MM	Updated stability specification.
11/18/20	B	MM	Updated part marking