

SPECIFICATION FOR RoHS 6 COMPLIANT LVDS OUTPUT SMT VCTCXO

MtronPTI P/N M6300S021

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F_o		160.000000		MHz	
Frequency Stability						
vs. Temperature	$\Delta F/F$	-25		+25	ppm	Includes initial tolerance, deviation over temperature, shock, vibration, supply, reflow (2X), and 20 year aging.
RF Output						
Output Type		Differential LVDS Compatible				
Output Load		100 Ω Differential			V	
Common Mode Output Voltage			1.2		V	
Differential Output Voltage		250	350	450	mV	LVDS Load
Symmetry (duty cycle)	T_{DC}	45	50	55	%	Referenced to 1.25 V
Output Skew			20		pS	
Rise/Fall Time	T_R/T_F			0.50	nS	From 20% to 80% V_{CC}
Start-up Time				10	mS	
Frequency Adjustment						
Tuning range		± 50			ppm	For 10% to 90% of V_c
Maximum Tuning Range				± 80	ppm	$V_c = 0V$ to 3.3V
Pullability (APR)		± 50				For 20 years, 0V to 3.3V
Control Voltage Range	V_c	0.0	1.65	3.3	V	Pad 1. $V_{CC} = 3.3 V$
Tuning Sensitivity		37.9	44.0	50.1	ppm/v	For 10% to 90% of V_c
Enable/Disable Logic		80% V_{CC} or N/C			V	Pad 2: Output Enabled
				0.5	V	Pad 2: Output to high-Z
Other Parameters						
Phase Noise			-58		dBc/Hz	@ 10 Hz
			-86			@ 100 Hz
			-110			@ 1 kHz
			-127			@ 10 kHz
			-133			@ 100 kHz
			-140			@ 1 MHz
			-150			@ 10 MHz
Phase Jitter	Φ_J			2.0	pS RMS	Integrated 100 Hz to 35 MHz
G-sensitivity			4.0		ppb/g	
Supply Voltage & Power Consumption						
Operating Voltage	V_{CC}	3.135	3.3	3.465	V	
Operating Current	I_{CC}			100	mA	

SPECIFICATION FOR RoHS 6 COMPLIANT LVDS OUTPUT SMT VCTCXO MtronPTI P/N M6300S021

Environmental Conditions:

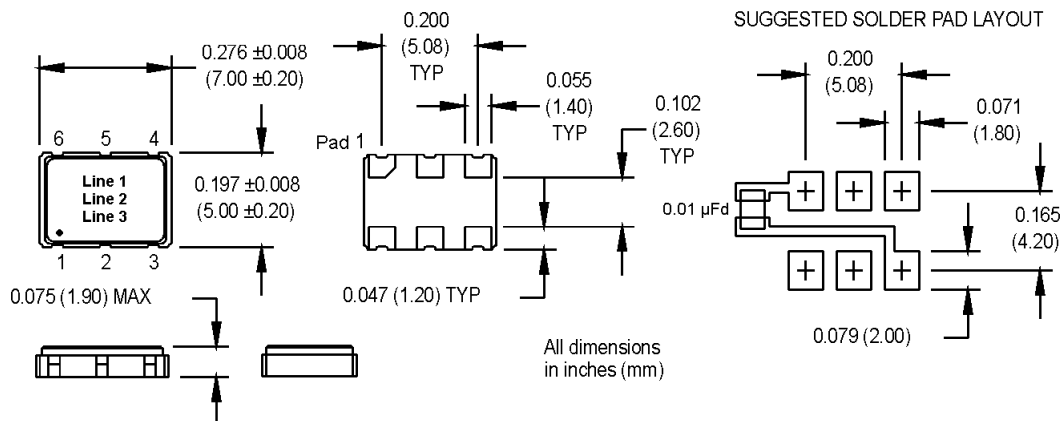
Operating Temperature	T _A	-55		+125	°C	Case Temperature
Storage Temperature	T _S	-62		+125	°C	
Shock	Per MIL-STD-202, Method 213, Condition C (100 g's, 6 ms duration, ½ sinewave)					
Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)					
Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 ⁻⁸ atm cc/s of helium)					
Altitude	Varying from -2500 ft (16.06 psia) and +70,000 ft (0.649 psia) with excursions to 79,000 ft. (0.426 psia) and returning to 70,000 ft. with a rate of change in altitude of 5,000 ft.min.					
Solderability	Per EIAJ-STD-002					
Max. Soldering Conditions	See Figure 1.					
Package Type	6-pad 5.0 X 7.0 X 1.9 mm leadless ceramic. RoHS compliant.					

Mechanical, Marking, and Pin Out Information:

Part Marking	
Line 1	M6300S021
Line 2	160M0000
Line 3	MPTI yyww

Legend	
yy	Year
ww	Work week

Pin	Function
1	Control Voltage
2	Enable/Disable
3	Ground
4	Output
5	Complementary Output
6	+V _{CC}



SPECIFICATION FOR RoHS 6 COMPLIANT LVDS OUTPUT SMT VCTCXO MtronPTI P/N M6300S021

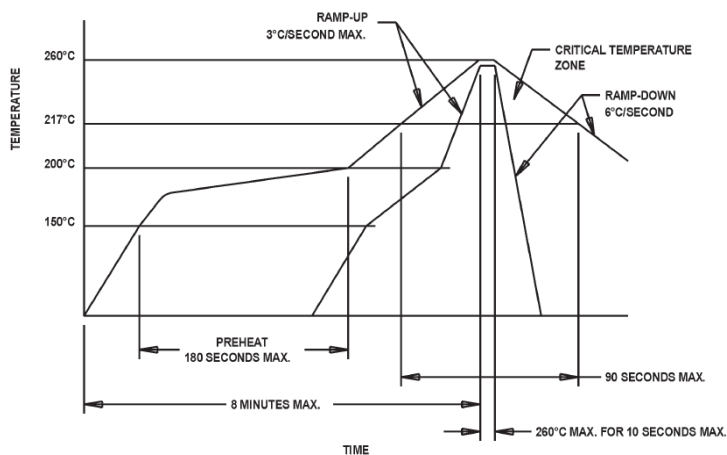


Figure 1