

## SPECIFICATION FOR SMT LVDS OUTPUT VCTCXO

### MtronPTI P/N M6300S019

#### Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F <sub>O</sub>		486.000000		MHz	
Frequency Stability	ΔF/F	-4.6		+4.6	ppm	((F <sub>max</sub> – F <sub>min</sub> )/2) Over operating temperature range
Operating Temperature	T <sub>A</sub>	-40		+85	°C	
Operating Voltage	V <sub>CC</sub>	3.135	3.3	3.465	V	
Operating Current	I <sub>CC</sub>			100	mA	
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 <sub>DC</sub>	45		55	%	Referenced to 1.25 V
Output Skew			20		pS	
Rise/Fall Time	T <sub>R</sub> /T <sub>F</sub>			0.35	nS	From 20% to 80%
Tuning Adjustment Range		20			ppm	Pad 1.
Control Voltage		0	1.65	3.3	V	Pad 1.
Gain Transfer Function			17		ppm/V	V <sub>c</sub> = 0.3V to 3.0V
Output Enable Function	V <sub>IH</sub>	75% V <sub>CC</sub>			V	Pad 2
Output Disable Function	V <sub>IL</sub>			0.5	V	Pad 2
Phase Noise				-46	dBc/Hz	@ 10 Hz
				-79	dBc/Hz	@ 100 Hz
				-104	dBc/Hz	@ 1 kHz
				-114	dBc/Hz	@ 10 kHz
				-120	dBc/Hz	@ 100 kHz

#### Environmental Conditions:

Mechanical 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)
Storage Temperature	-55°C to +125°C
Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 <sup>-8</sup> atm cc/s of Helium)
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.

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

Part Marking	
Line 1	M6300S019
Line 2	486M0000
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 <sub>CC</sub>

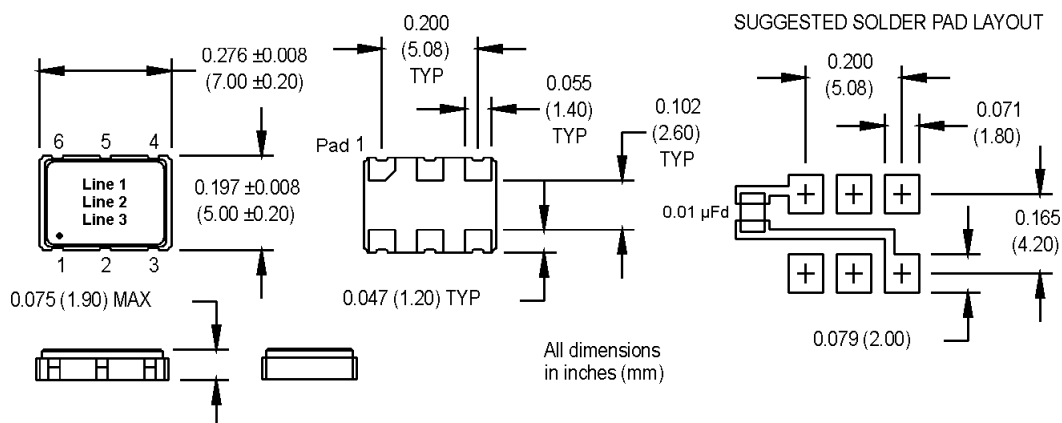
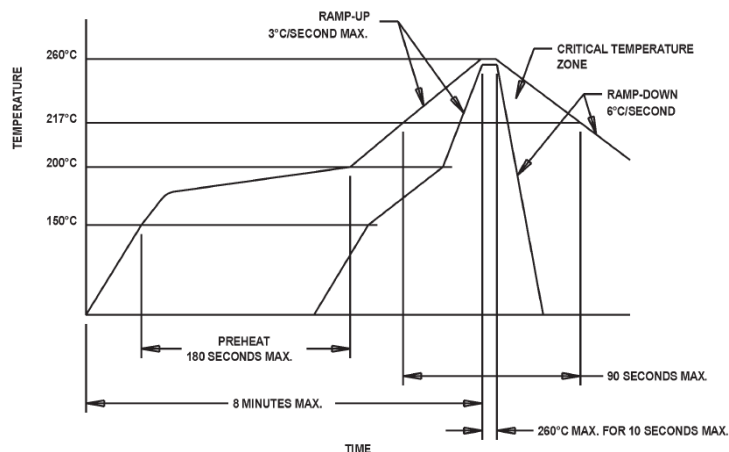


Figure 1



### IV. DATA SHEET REVISION TABLE:

Date	Rev.	Author	Details of Revision
5/11/09	0	WNJ	Original release.
5/12/09	A	WNJ	Changed Logic type to LVDS.
4/10/12	B	MM	Changed phase noise specification to maximum.