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QUARTZ CRYSTAL OSCILLATOR SPECIFICATION

Customer	: 100MHz SC Sine	Updated	: 1/20/2011
Model #	: 220-0520-01	Created	: 6/4/2010
ICD #	: 010856-0501	Page	: 1 of 3

Electrical Parameter	Specification	Note #	Comments
Frequency	: 1.00000000E+08 Hz		
Initial Tolerance	: ± 0.0E+00		
Crystal Cut	: SC		
Overtone	: 3		
Thermal Stability	: 5.0E-08	3	
Temperature Range			
Minimum	: -30 °C	3	
Maximum	: 70 °C	3	
Aging			
Per Day	: 2.0E-09		
Per Month	: 0.0E+00	1	
Per Year	: 2.0E-07		
Output Type	: Sine	2	
Nominal	: 9.000 dBm		
Minimum	: 7.000 dBm		
Maximum	: 11.000 dBm		
Harmonics	: -30 dBc		
Subharmonics	: 0 dBc	1	
Spurious	: -80 dBc		
Phase Noise at Offsets of			
1 Hz	: -65 dBc/Hz		
10 Hz	: -95 dBc/Hz		
100 Hz	: -125 dBc/Hz		
1000 Hz	: -155 dBc/Hz		
10000 Hz	: -158 dBc/Hz		
100000 Hz	: -160 dBc/Hz		
Short Term Stability			
1 sec	: 5.0E-10		
10 sec	: 0.0E+00	1	

MTI-Milliren Technologies, Inc., Oscillator Specification

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Electrical Parameter	Specification	Note #	Comments
Supply Voltage Sensitivity	(±5%)		
df/dV	: 5.0E-08		
Load Sensitivity	(±5%)		
df/dL	: 5.0E-08		
g-sensitivity			
df/dg	: 2.0E-09	4	
Warm-up			
Time	: 5.0 Min		
df/f	: 1.0E-07		
Reference Time	: 30.0 Min		
Retrace			
df/f	: 1.0E-08		
Time Off	: 24.0 Hrs		
Time On	: 2.0 Hrs		
Warm-up			
Typical	: 3.000 W		
Minimum	: W		
Maximum	: 3.300 W		
Continuous Power			
Typical	: 0.800 W		
Minimum	: W		
Maximum	: 0.960 W		
Supply Voltage			
Nominal	: 12.00 V		
Minimum	: 11.40 V		
Maximum	: 12.60 V		
Reference Voltage			
Minimum	: 9.5 V		
Maximum	: 10.5 V		
Source Resistance	: 1.000E+02 Ω		
Tuning Voltage			
Minimum	: 0.0 V		
Maximum	: 5.0 V		
Tuning Slope	: Positive		
Tuning Input			
Resistance	: 5.000E+04 Ω		
Bandwidth	: 1.000E+03 Hz		
Tuning Linearity	: 20 %		
Electrical Tuning			
Minimum	: ± 4.0E-06		
Maximum	: ± 1.2E-05		
Mechanical Tuning			
Minimum	: ± 0.0E+00	1	
Maximum	: ± 0.0E+00	1	

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Notes

1. Not applicable
2. Into a 50 Ω load
3. Thermal Stability: $\pm 5.0E-08$ (-30C to +70C)
4. +/- 2 0E-09 per axis

