MtronPTI ...when timing matters
2525 Shader Road, Orlando Florida 32804 USA
Phone: 407-298-2000 Fax: 407-293-2979
Website: mtronpti.com NYSE MKT: LGL

Specification for a Low G Sensitivity OCXO
MtronPTI P/N: XO5501-001V
[Quadrep part# TBD]

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Nominal Frequency	F		10.000		MHz	
Initial Set-On Frequency	F_O	-100		+100	ppb	At the time shipment
Frequency Stabilities						
vs. Temperature	$\Delta F_T/F$	-10		+10	ppb	Over the OTR
vs. Supply Voltage	$\Delta F_{VDD}/F$	-5		+5	ppb	5% change in voltage
vs. Load	$\Delta F_{VDD}/F$	-5		+5	ppb	10% change in Load
Short Term Stability			2×10^{-11}			Allan Variance *Tau* = 1 sec., under static conditions
Aging		-1		+1	ppb/day	At the time of Shipment
		-100		+100	ppb/year	After 30 days continuous operation
RF Output						
Output Type		Sinewave				
Output		+5.0	+7.0	+9.0	dBm	
Output Load		45	50	55	Ω	
Frequency Adjustment						
Method		Voltage Tuned				
Tuning Voltage	V_{TUNE}	0		+5.0	V_{DC}	
Tuning Range		±0.8			ppm	
Reference Voltage	V_{REF}	+4.8		+5.2	V_{DC}	
Reference Voltage Source current				1.0	mA	
Tuning Slope		Positive				
Additional Parameters						
Harmonics				-30	dBc	
Spurious				-80	dBc	
G-Sensitivity				0.2	ppb/G	
Warm-up Times				5	Minutes	Time to be within ±0.1 ppm of the frequency after 1 hour of operation @ 25°C
				30	Minutes	Time to be within full specification compliance
Phase Noise (10MHz) (under static conditions)				-120	dBc/Hz	@ 10Hz Offset
				-143	dBc/Hz	@ 100Hz Offset
				-150	dBc/Hz	@ 1kHz Offset
				-155	dBc/Hz	@ 10kHz Offset
Phase Noise (10MHz) (under Operational Vibration conditions)				-98	dBc/Hz	@ 10Hz Offset
				-118	dBc/Hz	@ 50Hz Offset
				-124	dBc/Hz	@ 100Hz Offset
				-138	dBc/Hz	@ 500Hz Offset
				-143	dBc/Hz	@ 1kHz Offset
				-155	dBc/Hz	@ 10kHz – 1MHz Offset

2525 Shader Road, Orlando Florida 32804 USA
Phone: 407-298-2000 Fax: 407-293-2979
Website: mtronpti.com NYSE MKT: LGL

Specification for a Low G Sensitivity OCXO
MtronPTI P/N: XO5501-001V
[Quadrep part# TBD]

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Temperature and Supply Voltage						
Operating Voltage	V_{DD}	11.4	12.0	12.6	V_{DC}	
Power Consumption (Over the OTR)				3.0	Watts	Steady state @ 25°C
				7.0	Watts	@ Warm-up

Environmental Conditions:

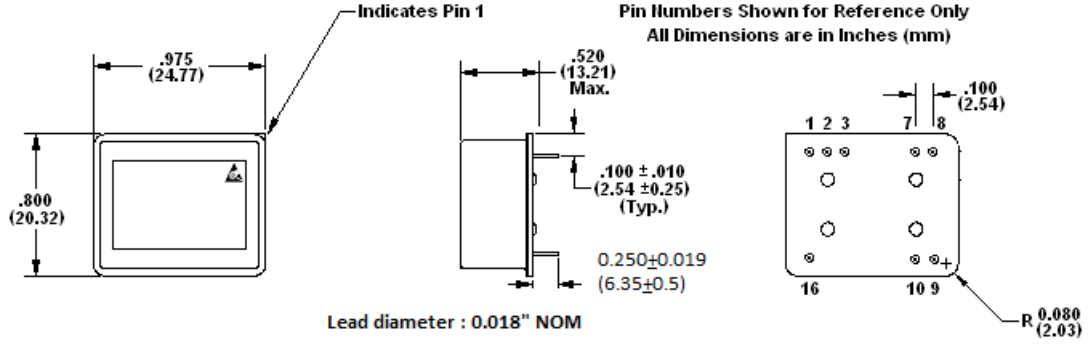
Temperature						
Operating Temperature	OTR	-15		+70	°C	Consult Factory for Additional OTR Options
Storage Temperature	STR	-55		+85	°C	
Mechanical Shock (survival)	Per MIL-STD-202, Method 213, (2000 g's, 0.3 m s duration, ½ sinewave)					
Vibration (survival)	Per MIL-STD-202, Method 201 & 204 (10 g's from 20-2000 Hz)					
Random Vibration (Operational)	10Hz to 40Hz: 0.00075G^2/Hz 50Hz to 500Hz: 0.00125G^2/Hz 1kHz: 0.00030G^2/Hz 2kHz to 40Hz: 0.0010G^2/Hz					
Solderability	Per EIAJ-STD-002					

Mechanical, Marking and Layout Information:

Part Marking	
Line 1	MtronPTI
Line 2	XO5501-001V
Line 3	10.000000
Line 4	Serial Number
Line 5	Date Code

Legend	
yy	Year
ww	Work Week

Pin	Function
1	V_{TUNE}
2	N/C
3	N/C
7	V_{REF}
8	Ground
9	Ground
10	RF Output
16	Supply Voltage



Data Sheet Revision Table:

Date	Rev.	Orig.	Details of Revision
11/13/14	B	DPD	RevA spec is a generic data sheet that covers various options. Spec sheet updated with specific options.
05/15/14	A	BRM	Original Release.