

**Preliminary Specification for a Sine wave Output  
100MHz Output with 10MHz Reference Input  
OCXO MtronPTI P/N: XO8085-006R**

**Electrical Specifications:**

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Nominal Frequency (RF Output)	F <sub>O</sub>		100.0000		MHz	
Frequency Stabilities						
vs. Temperature <sup>1</sup>	ΔF <sub>T</sub> /F	-150		+150	ppb	Over the Operating Temperature Range
vs. Supply voltage <sup>1</sup> variation		-30		+30	ppb	5% change in supply voltage
Daily Aging <sup>1</sup>		-5		+5	ppb	After 30-days Power On
1 Year Aging <sup>1</sup>		-0.5		+0.5	ppm	
20-Years Aging <sup>1</sup>		-2.0		+2.0	ppm	
RF External Reference (10MHz)						
RF Input Level		-3	0	+3	dBm	Customer to choose the signal Level between 0+/- 3dB
RF Input Lock Range				+/- 2	ppm	10MHz External would need to be within +/- 2ppm from Nominal 10MHz to lock
RF Output(100MHz)						
Output Type		Sinewave				
Output Level		+13			dBm	
Output Load			50		Ω	±10%
Additional Parameters						
Phase Noise (Under Static Conditions)				-100	dBc/Hz	10Hz Offset
				-130	dBc/Hz	100Hz Offset
				-158	dBc/Hz	1kHz Offset
				-175	dBc/Hz	10kHz Offset
				-180	dBc/Hz	100kHz Offset
				-180	dBc/Hz	1MHz Offset
				-180	dBc/Hz	10MHz Offset
Harmonics				-30	dBc	
Sub-Harmonics				-50	dBc	
Spurious				-80	dBc	
g-sensitivity			1		ppb/g	Worst case axis
Warm-up Time				5	minutes	Test Condition(@ 25°C): Oscillator turned ON after 24hrs OFF. Frequency change 5 minutes after turn ON will be within ±0.05ppm of Long-term stable nominal frequency.
Temperature, Supply Voltage & Power Consumption						
Operating Temperature	OTR	-40		+70	°C	Full Specification Compliance
Storage Temperature	STR	-55		+100	°C	

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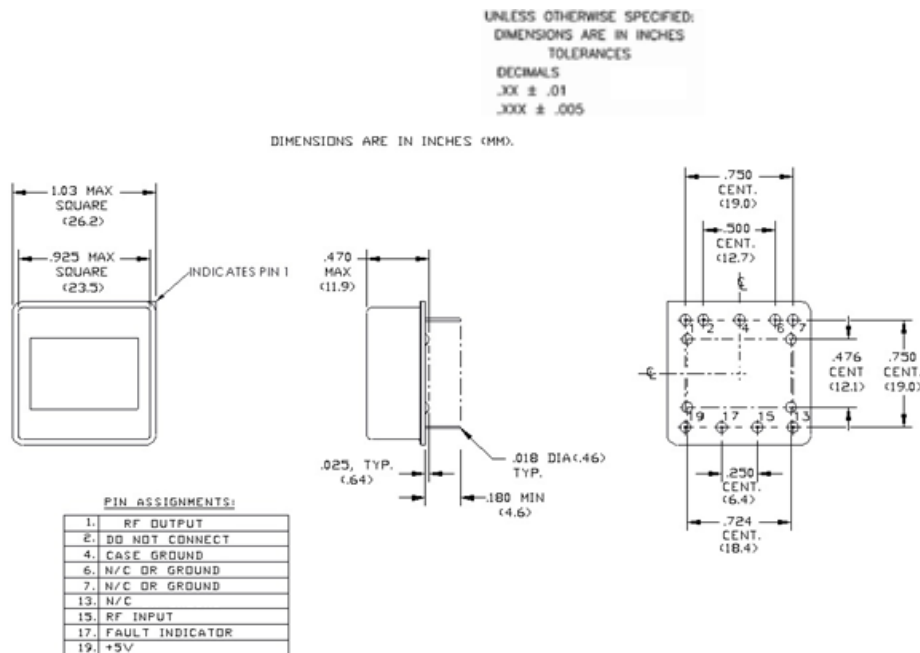
Operating Voltage	VCC	+4.75	+5.0	+5.25	V <sub>D</sub>	
Power Consumption			1.5		Watts	Steady state @ 25°C, In Still Air
				4.0	Watts	@ Warm-up

<sup>1</sup> Typical frequency stability parameters, performance will be representative of the 10MHz ref. that customer will feed on pin-15

**Environmental Conditions:**

Seal	Hermetic
RoHS	Full RoHS Compliance

**Mechanical, Marking and Layout Information:**



RF Input: 10MHz (External reference)  
Fault Indicator: 3.3 in Lock; 0V Out of Lock

Part Marking
XO8085-006R
Serial Number
Date Code

**Data Sheet Revision Table:**

Date	Rev.	Orig.	Details of Revision
12-28-18	B	DPD	F/T and pin configuration updated.
05-09-18	A	DPD	Preliminary Release