

MTI Oscillator Specification
 Customer: 10M AT SINE
 Model # : 240-0545-C
 ICD # : 010185-0501

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 Updated: 10/25/2013
 Created: 5/28/1999
 See Notes on Page 3

Note # Comments

Frequency	:	1.00000000E+007 Hz	3	
Initial Tolerance	:	± 5.0E-008		
Crystal Cut	:	AT		
OT	:	3		
Thermal Stability	:	5.0E-007		
Temperature Range	:			
Minimum	:	0 °C		
Maximum	:	70 °C		
Aging	:			
Per Day	:	1.0E-009		
Per Month	:	0.0E+000	1	
Per Year	:	2.0E-007		
Output Type	:	+9dBm ±2dB Sine	2	
Sine	:			
Nominal	:	9.000 dBm		
Minimum	:	7.000 dBm		
Maximum	:	11.000 dBm		
Harmonics	:	- 20 dBc		
Subharmonics	:	- 0 dBc	1	
Spurious	:	- 80 dBc		
Phase Noise @ Offsets of:	:			
1 Hz	:	- 65 dBc/Hz		
10 Hz	:	-100 dBc/Hz		
100 Hz	:	-135 dBc/Hz		
1,000 Hz	:	-145 dBc/Hz		
10,000 Hz	:	-155 dBc/Hz		
100,000 Hz	:	-155 dBc/Hz		
Short Term Stability	:			
1 Sec	:	1.0E-010		
10 Secs	:	0.0E+000	1	

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Supply Voltage Sensitivity ($\pm 5\%$)

dF/dV : 1.0E-008

Load Sensitivity ($\pm 5\%$)

dF/dL : 1.0E-008

g-Sensitivity

dF/dG : 0.0E+000

1

Warm Up

Time : 10.0 Mins

dF/F : 2.0E-008

Reference Time : 60.0 Mins

Retrace : 0.0E+000

1

Time Off : 0.0 Hr

Time On : 0.0 Hr

Warm Up Power

Typical : 6.000 W

Minimum : 5.400 W

Maximum : 6.600 W

Continuous Power

Typical : 1.700 W

Minimum : 1.360 W

Maximum : 2.040 W

Supply Voltage

Nominal : 13.00 V

Minimum : 11.00 V

Maximum : 15.00 V

Reference Voltage

1

Minimum : 0.0 V

Maximum : 0.0 V

Source Resistance : 0.000E+000 Ω

1

Tuning Voltage

1

Minimum : 0.0 V

Maximum : 0.0 V

Tuning Slope : Negative

Tuning Input

Resistance : 0.000E+000 Ω

1

Bandwidth : 0.000E+000 Hz

1

Tuning Linearity : 0 %

Electrical Tuning

Minimum : $\pm 0.0E+000$

1

Maximum : $\pm 0.0E+000$

1

Mechanical Tuning

Minimum : $\pm 1.2E-006$

Maximum : $\pm 3.0E-006$

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Notes:

1. Not applicable
2. Into a 50 Ω Load.
3. Initial Tolerance is $\pm 5.0\text{E}-008$ after 1 hour warm-up.

Revisions:

Revision "A", 9/6/96: Changed dF/dV from $1\text{e}-8$ to $3\text{e}-8$; changed warm-up time from 5min to 10min; changed warm-up power from 5W to 6W; changed O/P from +7dBm $\pm 2\text{dB}$ to +9dBm $\pm 2\text{dB}$.

Revision "B" - June 2, 1998.

Changed Temperature Range FROM: -30°C TO: 0°C . Changed Aging/Year FROM: $5.0\text{E}-007$ TO: $2.0\text{E}-007$. Added Note #2 to define a 50 Ω Load Impedance. Changed phase noise as follows;

@ 10Hz offset FROM: -95dBc/Hz TO: -100dBc/Hz

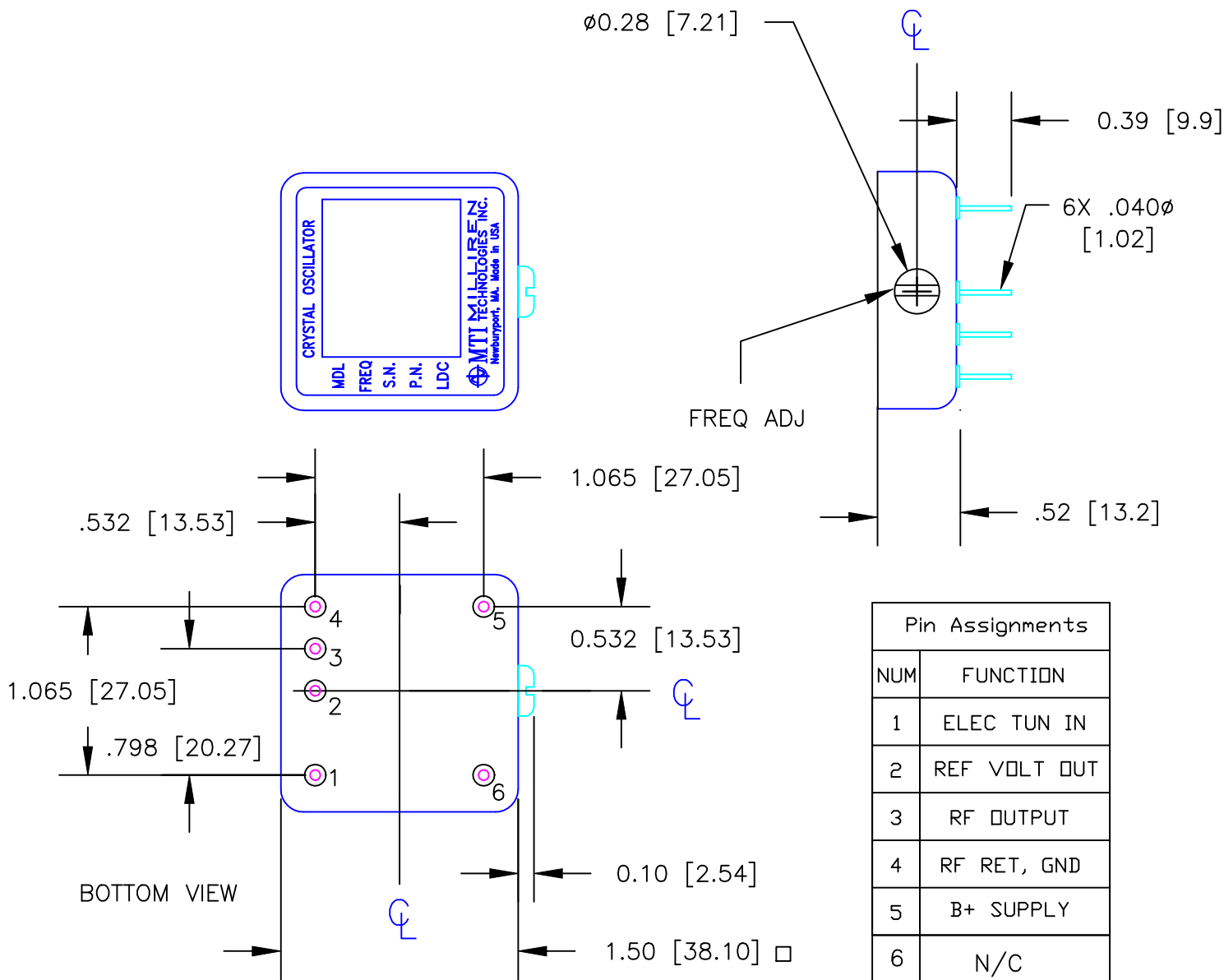
@ 100Hz offset FROM: -120dBc/Hz TO: -135dBc/Hz

@ 1.0kHz offset FROM: -150dBc/Hz TO: -145dBc/Hz

Changed Short Term Stability @ 10 seconds FROM: $1.0\text{E}-010$ TO: $0.0\text{E}+000$ and added note #1 - Not Applicable. Changed Supply Voltage Sensitivity FROM: $3.0\text{E}-008$ TO: $1.0\text{E}-008$. Changed Tuning Linearity FROM: 35% TO: Not Applicable.


Revision "C" - May 28, 1999 - Changed Initial Tolerance; FROM: $\pm 0.0\text{E}+000$ TO: $\pm 5.0\text{E}-008$ (Note 3). Added Note 3: After 1 hour warm-up.

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
B	Change Pin Assignments /Rotate Can Assy	5-7-91	BTM
C	Flop Pin 2 & 6	5-13-91	BTM
D	Change height to incl f/t's	5-15-91	BTM
E	CHANGE LOGO, ADD TEXT BOT VIEW	6-23-92	BTM



INTERFACE CONTROL DRAWING

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		DIMENSIONS IN INCHES UNLESS SPECIFIED					
		TOLERANCES		DFT	BTM		
		0.XX DEC.	0.XXX DEC	CHK	MV		
		$\pm .015$	$\pm .010$	ENG	BTM		
240 SERIES		FRACTIONS	ANGLES			title	
		\pm	\pm			OSCILLATOR QUARTZ	
USED ON	QTY	MATERIAL	FINISH	MFG		size	A
APPLICATION				QA		fscm no.	---
						dwg no.	010185-0501
						scale	N/A

						SHEET	1 of 1