1703 E. Highway 50 Yankton, SD 57078 USA
Phone: 800-762-8800 or 605-665-9321 Fax: 605-665-1709
Website: www.mtronpti.com

SPECIFICATION FOR HCMOS COMPATIBLE SMT OSCILLATOR
MtronPTI P/N: M2005S028

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F_O		25.000000		MHz	
Frequency Stability						
Frequency Stability	ΔF/F	-50		+50	ppm	Includes initial tolerance and deviation over temperature
RF Output						
Output Type		HCMOS/TTL Compatible				
Output Load				15/10	pF/TTL	
Symmetry (duty cycle)	T_{DC}	45		55	%	Ref to ½ V_{DD} & 1.4 V
Logic "1" Level	V_{OH}	90% V_{DD}			V	HCMOS load
		V_{DD} – 0.5			V	TTL Load
Logic "0" Level	V_{OL}			10% V_{DD}	V	HCMOS load
				0.5		TTL Load
Rise/Fall Time	T_R/T_F			6	ns	10% to 90% V_{DD} HCMOS load 0.5 V to 2.4 V TTL load
Tristate Function		Logic "1" or floating Logic "0"				Lead1: Output Enabled Lead1: Disables Output to Hi-Z
Supply Voltage & Power Consumption						
Operating Voltage	V_{DD}	2.97	3.3	3.63	V	
Operating Current	I_{DD}			35	mA	
Additional Parameters						
Cycle to Cycle Jitter				20	ps RMS	1-Sigma

Environmental & Mechanical Requirements:

Operating Temperature	T_A	-40		+85	°C	
Storage Temperature	T_S	-55		+125	°C	
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)					
Hermeticity	Per MIL-STD-202, Method 112 (1 x 10^{-8} atm cc/s of Helium)					
Solderability	Per EIAJ-STD-002					
Max. Soldering Conditions	+240°C for 10 secs. max					
Package Type	4 J-Lead ceramic package (M8S type)					
Leads	Leads to be Solder Dipped with (Sn/Pb) (63/37)					

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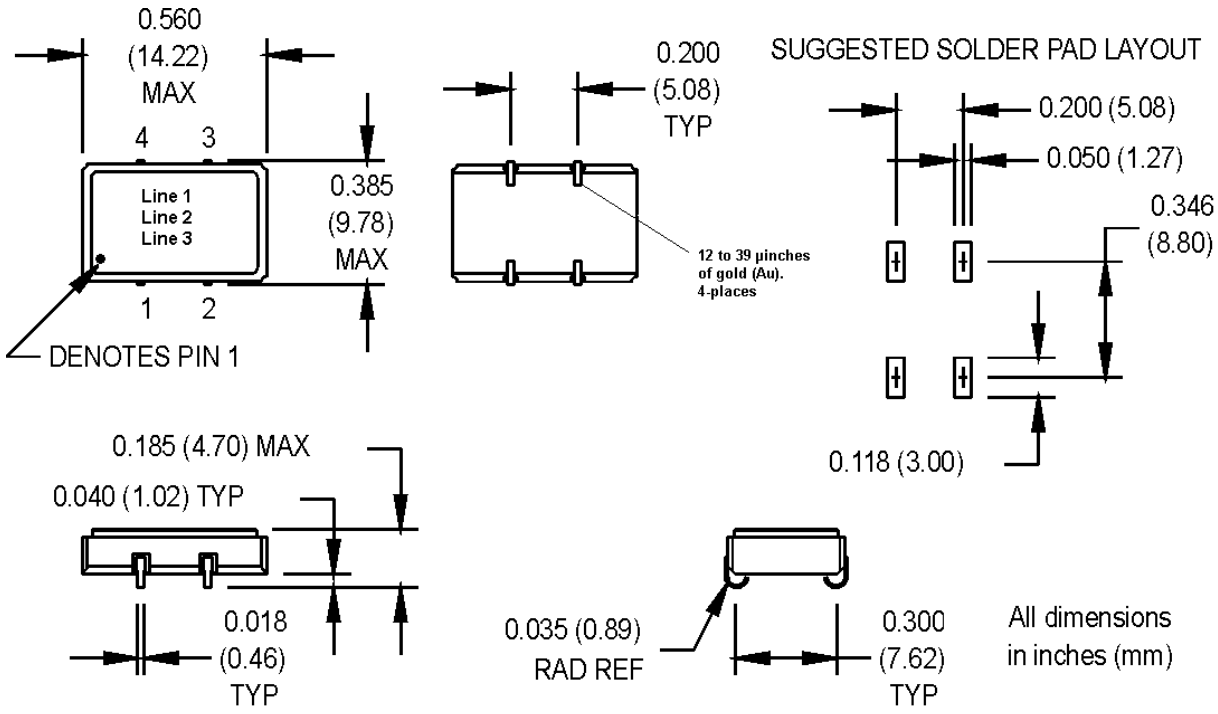
Dimensions, Marking, and Pin Out Information:

Pad	Function
1	Tristate
2	Ground
3	Output
4	$+V_{DD}$

Part Marking	
Line 1	M2005S028
Line 2	25.000000 M
Line 3	M-TRON (yyww)

Legend	
yy	Year
ww	Work week



Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
10/06/04	0	MM	Original release.
11/29/16	A	MM	Datasheet format update

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