OBSOLE

M4001 & M4002 Series

9x14 mm, 5.0 or 3.3 Volt, Sinewave, VCSO





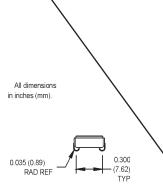




- Low Jitter <1 ps from 12 kHz to 20 MHz
- Ideal for clock smoothing application for OC-48 and OC-192

00.0000 M4001/M4002 MHz **Product Series** M4001 = 3.3 V M4002 = 5.0 V Temperature Range 1: 0°C to +70°C 7: 0°C to +85°C Stability 3: ±100 ppm (typical) Output Type V: Voltage Controlled Symmetry/Output Type S: 45/55% Sinewave Package/Lead Configurations K: FR-4 J: J-lead **RoHS Compliance** Blank: non-RoHS compliant part -R: RoHS compliant part Frequency (customer specified)

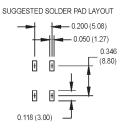
J-Lead Package 0.560 (14.22) MAX 0.385 (9.78) C DENOTES PIN 1. 0.185 (4.70) MAX 0.040 (1.02) TYP





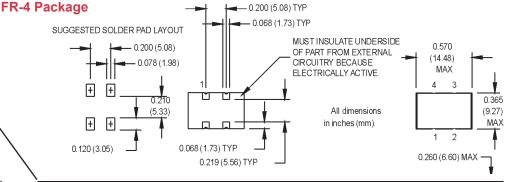
0.018

(0.46)



Pin Connections

PIN	FUNCTION			
1	Control Voltage			
2	Gro und			
3	RF Out			
4	+Vdd			



Ordering Information

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	PARAMETER	Symbol	Min.	Тур.	Max.	Units	Condition/Notes
	Frequency Range	F	622.08		2488	MHz	See Note 1
	Operating Temperature	TA	(See Ordering Information)				
	Storage Temperature	Ts	-55		+125	°C	
	Frequency Stability	∆F/F	(See Ordering Information)				
	Aging						
	1st Year						
	Thereafter (per year)						
	Pullability/APR		50			ppm	See Note 2
us	Control Voltage	Vc	0		3.3	٧	M4001
tio			0		5.0	V	M4002
fica	Linearity				15	%	Positive Monotonic Slope
eci	Modulation Bandwidth	fm	500			kHz	-3dB Bandwidth
l Si	Input Impedance	Zin	50k			Ohms	
Electrical Specifications	Input Voltage	Vdd	3.135	3.3	3.465	V	M4001
			4.5	5.0	5.5	V	M4002
	Input Current	ldd		50	80	mA	M4001
				70	100	mA	M4002
	Output Type						Sinewave
	Load			50		Ohms	See Note 3
	Symmetry (Duty Cycle)		45/55		55/45	%	@ 0 VDC
	Output Power	Po	+2	+5	+8	dBm	M4001
١.			+4	+7	+10	dBm	M4002
	Start up Time						
	Sub-Harmonic Levels				-20	dBc	
	Non-Harmonic Levels				-60	dBc	
	Phase Jitter	φJ					
	@ 1244.16 MHz			0.10	0.3	ps RMS	Integrated 12 kHz - 20 MHz
	Phase Noise (Typical)	10 Hz	100 Hz	1 kHz	10 kHz	100 kHz	Offset from carrier
	@ 1244.16 MHz	-35	-63	-90	-117	-152	dBc/Hz

- 1. Consult factory for extended temperature operation and exact frequency availability.
- APR specification inclusive of initial calibration, deviation over temperature, shock, vibration, supply voltage, and aging
 See load circuit diagram #3.

MtronPTI reserves the right to make changes to the product(s) and service(s) described herein without notice. No liability is assumed as a result of their use or application.

OBSOLETE MtronPTI

MtronPTI Lead Free Solder Profile



