

M6001, M6002, M6003 & M6004 Series

9x14 mm FR-4, 5.0 or 3.3 Volt, HCMOS/TTL, TCXO and VCTCXO



Features:

- Operating stabilities to ± 0.5 ppm
- Stratum III stability of ± 4.6 ppm (non-holdover)

Applications:

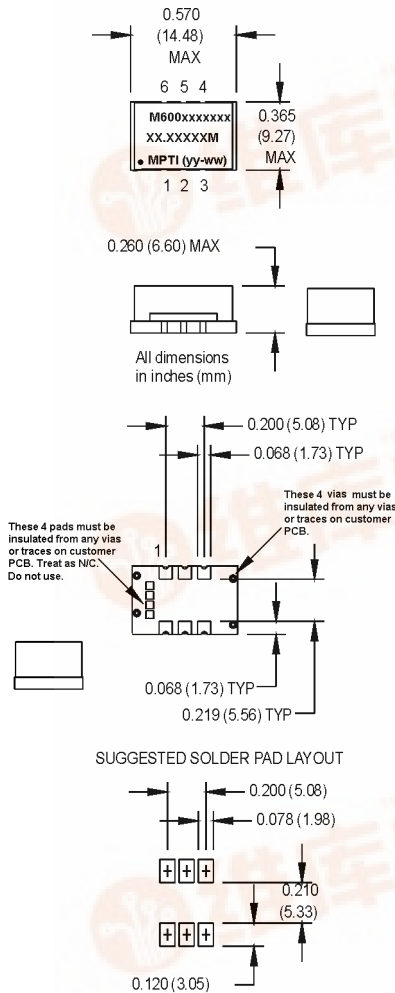
- Ideal for Signal Processing, Military/Avionic Communications, Flight Controls, WLAN, Basestations, DWDNM, SERDES, SONET/SDH, 10G and 40G Ethernet applications

Ordering Information

Product Series	M6001 - M6004	1	L	F	C	K	-R	00.0000 MHz
M6001 = 3.3 V TCXO								
M6002 = 5.0 V TCXO								
M6003 = 3.3 V VCTCXO								
M6004 = 5.0 V VCTCXO								
Temperature Range								
1: 0°C to +70°C								
2: -40°C to +85°C								
8: 0°C to +50°C								
Stability								
L: ± 4.6 ppm								
K: ± 2 ppm								
J: ± 1 ppm								
G: ± 0.5 ppm (0° to 50°C only)								
Frequency Control (Pin #1)								
F: Fixed (M6001 and M6002 only)								
V: Voltage Controlled (M6003 and M6004 only)								
Symmetry/Logic Compatibility								
C: 45/55% CMOS								
Package/Lead Configurations								
K: FR-4 6 pad								
D: DIP (contact factory)								
RoHS Compliant								
Blank: non-RoHS compliant part								
-R: RoHS compliant part								
Frequency (customer specified)								

Pin Connections

FUNCTION	PAD
N/C or Control Voltage	1
Tristate	2
Ground/Case	3
Output	4
N/C	5
+Vdd	6



PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition/Notes
Frequency Range	F	5		30	MHz	
Operating Temperature	T _A	(See Ordering Information)				
Storage Temperature	T _S	-55		+105	°C	
Frequency Stability		(See Ordering Information)				
Aging						See Note 1
1st Year				1.0	ppm	See Note 2
10 year aging				3.0	ppm	
Input Voltage	V _{dd}	3.15	3.3	3.45	V	M6001, M6003
		4.75	5.0	5.25	V	M6002, M6004
Input Current	I _{dd}			10	mA	M6001, M6003
				20	mA	M6002, M6004
Pullability		±10			ppm	M6003/M6004 only (positive slope)
Control Voltage	V _c	0.5	1.5	2.5	V	M6003/M6004 only
Modulation Bandwidth	f _m	10			kHz	M6003/M6004 only
Input Impedance	Z _{in}	50k			Ohms	M6003/M6004 only
Output Type						CMOS
Load			15		pF	
Symmetry (Duty Cycle)		(See Ordering Information)				
Logic "1" Level	V _{oh}	90 %			V _{dd}	
Logic "0" Level	V _{ol}			10%	V _{dd}	
Rise/Fall Time	Tr/Tf			3	ns	
Tristate Function		Input Logic "1": output active Input Logic "0": output disables				
Start up Time		10			ms	
Phase Noise (Typical) @19.44 MHz		100 Hz	1 kHz	10 kHz	100 kHz	Offset from carrier
		-77	-107	-128	-143	-148

- Stability is inclusive of initial calibration, temperature, reflow, supply, load, shock, vibration, and ten year aging at 55°C.
- "L" stability version only. All other stability options - initial calibration and deviation vs. temperature.

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.

Please see www.mtronpti.com for our complete offering and detailed datasheets. Contact us for your application specific requirements: MtronPTI 1-800-762-8800.

