M6001, M6002, M6003 & M6004 Series 9x14 mm FR-4, 5.0 or 3.3 Volt, HCMOS/TTL, TCXO and VCTCXO



Condition/Notes

See Note 1 See Note 2



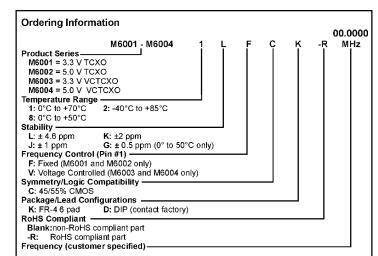


Features:

- 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



Pin Connections

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

PARAMETER

1st Year

Aging

Frequency Range

Operating Temperature

Storage Temperature

Frequency Stability

10 year aging

@19.44 MHz

0.570 (14.48) MAX 6 5 4 M600xxxxxxxx xx.xxxxxm MPTI (yy-ww) 1 2 3
O.260 (6.60) MAX All dimensions in inches (mm)
These 4 pads must be insulated from any vias or traces on customer PCB. Treat as NIC. Do not use.
SUGGESTED SOLDER PAD LAYOUT
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+++ 0.120 (3.05)

	Input Voltage	Vdd	3.15	3.3	3.45	V	M6001, M6003
ဟ			4.75	5.0	5.25	V	M6002, M6004
<u> </u>	Input Current	ldd			10	mA	M6001, M6003
äŧ					20	mA	M6002, M6004
ecific	Pullability		±10			ppm	M6003/M6004 only (positive slope)
ြင္ပ	Control Voltage	Vc	0.5	1.5	2.5	V	M6003/M6004 only
ल	Modulation Bandwidth	fm	10			kHz	M6003/M6004 only
ij	Input Impedance	Zin	50k			Ohms	M6003/M6004 only
	Output Type						CMOS
"	Load			15		рF	
	Symmetry (Duty Cycle)		(See Ordering Information)				
	Logic "1" Level	Voh	90 %			Vdd	
	Logic "0" Level	Vol			10%	Vdd	
	Rise/Fall Time	Tr/Tf			3	ns	
	Tristate Function		Input Logic "1": output active				
			Input Logic "0": output disables			les	
	Start up Time		10			ms	
	Phase Noise (Typical)	10 Hz	100 Hz	1 kHz	10 kHz	100 kHz	Offset from carrier
	Specification	Input Current Pullability Control Voltage Modulation Bandwidth Input Impedance Output Type Load Symmetry (Duty Cycle) Logic "1" Level Logic "0" Level Rise/Fall Time Tristate Function Start up Time	Input Current Idd Pullability Control Voltage Vc Modulation Bandwidth fm Input Impedance Zin Output Type Load Symmetry (Duty Cycle) Logic "1" Level Voh Logic "0" Level Vol Rise/Fall Time Tr/Tf Tristate Function Start up Time	A.75 Input Current Idd	Input Current Pullability Pullability Control Voltage Vc 0.5 1.5 Modulation Bandwidth fm 10 Input Impedance Zin 50k Output Type Load Symmetry (Duty Cycle) Logic "1" Level Logic "0" Level Rise/Fall Time Tristate Function Start up Time 4.75 5.0 (Seo Ordering Inference or Input Logic "1": output Input Logic "1": output Logic "0": output Logic "1": output Logic "0": output Logic "1": output Logic "0": output Logic "0": output Logic "1": output Logic "1": output Logic "1": output Logic "0": output Logic "1": output Logic "0": output Logic "1": output Logic "1"	10 10 10 10 10 10 10 10	1

Symbol

F

TA

Ts

Min.

-55

5

Тур.

(See Ordering Information)

(See Ordering Information)

Max.

+105

1.0

3.0

-143

30

Units

MHz

٥С

ppm

ppm

1. Stability is inclusive of initial calibration, temperature, reflow, supply, load, shock, vibration, and ten year aging at 55°C.

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2. "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.