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





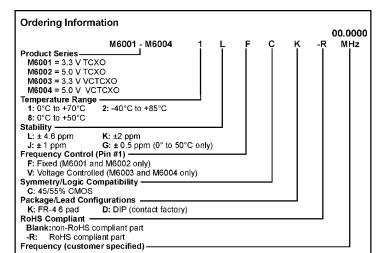


## Features:

- 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



## **Pin Connections**

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

0.570
(14.48)
MAX ,
6 5 4
M600xxxxxxx 0.365
xx.xxxxxm   (9.27)
MPTI (yy-ww) MAX
1 2 3
0.260 (6.60) MAX
All dimensions
in inches (mm)
0.200 (5.08) TYP
0.068 (1.73) TYP
These 4 vias must be
insulated from any vias or traces on customer
These 4 pads must be insulated from any vias or traces on customer 1
PCB. Treat as N/C.
Do not use.
0.068 (1.73) TYP
0.219 (5.56) TYP
0.210 (0.00) 111
SUGGESTED SOLDER PAD LAYOUT
0.200 (5.08)
0.078 (1.98)

, ,						
UGGESTED SOLDER PAD LAYOUT						
0.200 (5.08)						
0.078 (1.98)						
0.210						
(5.33)						
+++						
0.120(3.05)						

	PARAMETER	Symbol	Min.	Тур.	Max.	Units	Condition/Notes
	Frequency Range	F	5		30	MHz	
	Operating Temperature	TA	(See Ordering Information)				
	Storage Temperature	Ts	-55		+105	°C	
	Frequency Stability		(See Ordering Information)				See Note 1
	Aging						See Note 2
	1st Year				1.0	ppm	
	10 year aging				3.0	ppm	
	Input Voltage	Vdd	3.15	3.3	3.45	V	M6001, M6003
S			4.75	5.0	5.25	V	M6002, M6004
<u>.</u>	Input Current	ldd			10	mA	M6001, M6003
cat					20	mA	M6002, M6004
pecifications	Pullability		±10			ppm	M6003/M6004 only (positive slope)
Sp	Control Voltage	Vc	0.5	1.5	2.5	٧	M6003/M6004 only
cal	Modulation Bandwidth	fm	10			kHz	M6003/M6004 only
Electrical	Input Impedance	Zin	50k			Ohms	M6003/M6004 only
	Output Type						CMOS
ш	Load			15		pF	
	Symmetry (Duty Cycle)		(See Ord	ering Info	ormation)		
	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 Log	ic "0": οι	ıtput disab	les	
	Start up Time		10			ms	
	Phase Noise (Typical)	10 Hz	100 Hz	1 kHz	10 kHz	100 kHz	Offset from carrier
	@19.44 MHz	-77	-107	-128	-143	-148	

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

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