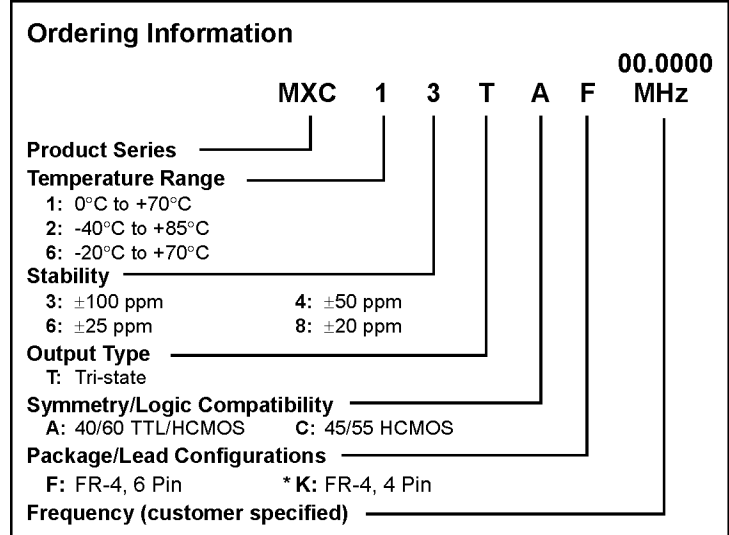


# MXC Series 3.3 Volt FR-4 Based HCMOS/TTL Compatible Surface Mount Oscillators



\* 4 Pin available to 77.760 MHz only.

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition
Electrical Specifications	Frequency Range	F	0.75		160	MHz	
	Frequency Stability	$\Delta F/F$	(See Ordering Information)				See Note 1
	Operating Temperature	Ts	(See Ordering Information)				
	Storage Temperature	Ta	-55		+125	°C	
	Input Voltage	Vdd	3.0	3.3	3.6	VDC	
	Input Current	Idd					
		0.75 MHz to 36 MHz			11/20	mA	4-Pin Pkg./ 6-Pin Pkg.
		36 MHz to 77.76 MHz			15/50	mA	4-Pin Pkg./ 6-Pin Pkg.
		77.76 MHz to 160 MHz			50	mA	6-Pin Pkg.
	Symmetry (Duty Cycle)		(See Ordering Information)				
	Load		5 TTL or 50 pF Max				See Note 2
	Rise/Fall Time	Tr/Tf			10	ns	0.7500 to 30.000 MHz
					5	ns	30.001 to 160.000 MHz
	Logic "1" Level	Voh	2.4			VDC	TTL Load
			90			%	HCMOS Load
Logic "0" Level	Vol			10	VDC	TTL Load	
				0.4	%	HCMOS Load	
Cycle to Cycle Jitter						1 Sigma	
	@ 19.44 MHz		7	12	ps RMS		
	@ 38.88 MHz		8	13	ps RMS		
	@ 77.76 MHz		10	15	ps RMS		
	@ 155.52 MHz		10	15	ps RMS		
Aging		< 2 ppm for first year					
		< 1 ppm/year following the first year					
Environmental	Mechanical Shock	Per MIL-STD-202, Method 213, Condition C					
	Vibration	Per MIL-STD-202, Method 201 & 204					
	Reflow Solder Conditions	240°C for 10 s max.					
	Solderability	Per EIAJ-STD-002					

1. Calibration, deviation over temperature, shock, vibration, and aging.  
 2. See load circuit diagram #2 on page 92.

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M-tron Industries, Inc., PO Box 630, Yankton, SD 57078-0630, USA Phone: 605-665-9321 or 1-800-762-8800 Fax: 605-665-1709 Website: www.mtron.com  
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# MXC Series 3.3 Volt FR-4 Based HCMOS/TTL Compatible Surface Mount Oscillators



## Pin Connections

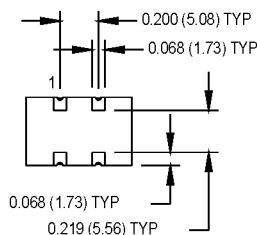
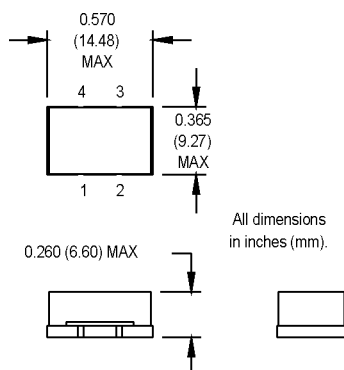
FUNCTION	4 Pin	6 Pin
N/C		1
Tri-state	1	2
Ground	2	3
Output	3	4
N/C		5
+Vdd	4	6

## Ordering Information

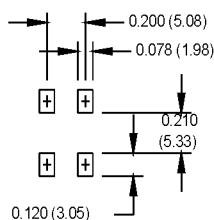
	MXC	1	3	T	A	F	00.0000 MHz
<b>Product Series</b>							
<b>Temperature Range</b>							
1: 0°C to +70°C							
2: -40°C to +85°C							
6: -20°C to +70°C							
<b>Stability</b>							
3: ±100 ppm							
4: ±50 ppm							
6: ±25 ppm							
8: ±20 ppm							
<b>Output Type</b>							
T: Tri-state							
<b>Symmetry/Logic Compatibility</b>							
A: 40/60 TTL/HCMOS							
C: 45/55 HCMOS							
<b>Package/Lead Configurations</b>							
F: FR-4, 6 Pin							
* K: FR-4, 4 Pin							
<b>Frequency (customer specified)</b>							

\* 4 Pin available to 77.760 MHz only.

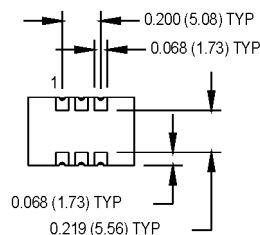
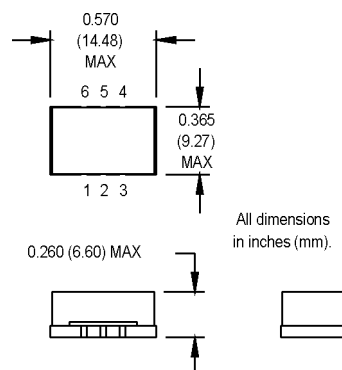
### PACKAGE 1 (K)



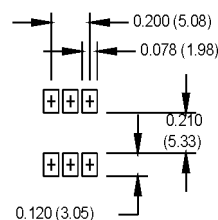
#### SUGGESTED SOLDER PAD LAYOUT



### PACKAGE 2 (F)



#### SUGGESTED SOLDER PAD LAYOUT



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