

M2035, M2036, and M2037 Series

5.0 x 7.0 x 1.4 mm, HCMOS Compatible Surface Mount Oscillators

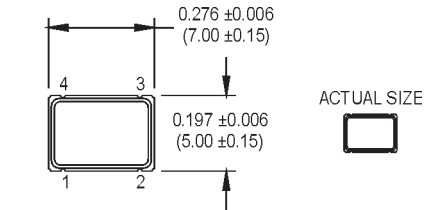


- ± 20 ppm stability
- Tri-state or standby function
- Ideal for WLAN and IEEE802.11 Applications
- Low power applications

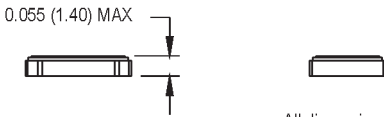


Ordering Information						
Product Series	M203X	D	8	Q	C N	00.0000 MHz
M2035 = 2.85V						
M2036 = 3.0V						
M2037 = 3.3V						
Temperature Range						
D: -10°C to +70°C						
6: -20°C to +70°C						
2: -40°C to +85°C						
Stability						
3: ± 100 ppm						
4: ± 50 ppm						
6: ± 25 ppm						
8: ± 20 ppm*						
Output Type						
Q: Standby Function						
T: Tri-state						
Symmetry/Logic Compatibility						
C: 45/55 HCMOS G: 40/60 HCMOS						
Package/Lead Configurations						
N: Leadless						
Frequency (customer specified)						

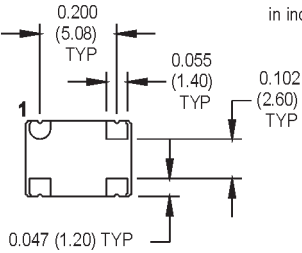
*-10°C to +70°C only



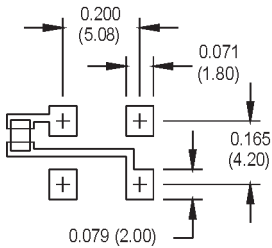
ACTUAL SIZE



All dimensions in inches (mm).



SUGGESTED SOLDER PAD LAYOUT



Pin Connections

PIN	FUNCTION
1	Tri-state/Standby
2	Ground
3	Output
4	+Vdd

Electrical Specifications	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition
	Frequency Range	F	1.5		125	MHz	See Note 1
	Frequency Stability	$\Delta F/F$			± 20	ppm	See Note 2
	Operating Temperature	T _A	(See Ordering Information)				
	Input Voltage	V _{dd}	3.15	3.3	3.45	V	3.3V
			2.85	3.0	3.15	V	3.0V
			2.7	2.85	3.0	V	2.85V
	Input Current	I _{dd}	1.500 to 20.000 MHz		15	mA	3.3V
			20.001 to 50.000 MHz		20	mA	
			50.001 to 67.000 MHz		30	mA	
			67.001 to 125.000 MHz		55	mA	
	Symmetry (Duty Cycle)		45		55	%	½ V _{dd}
	Rise/Fall Time	Tr/Tf	80.000 MHz		4	ns	See Note 2
			22.000 to 44.000 MHz		6	ns	10% to 90% V _{dd}
	Logic "1" Level	V _{oh}	90% V _{dd}			V	
Logic "0" Level	V _{ol}			10% V _{dd}	V		
Output Current	I _{oh}	-2			mA		
	I _{ol}	+2			mA		
Output Load				15	pF		
Start-up Time				5	ms		
Standby Current				10	μA		
Tri-State/Standby Function		Pin 1 high or floating: clock signal output Pin 1 low: output disables to high impedance					
Output Disable Time				150	ns		
Output Enable Time				5	ms		
Environmental	Mechanical Shock	Per MIL-STD-202, Method 213, Condition C					
	Vibration	Per MIL-STD-202, Method 201 & 204					
	Reflow Solder Conditions	+260°C for 10 seconds max.					
	Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 ⁻³ atm.cc/s of helium)					
	Solderability	Per EIAJ-STD-002					

1. Consult factory for available frequencies in this range
2. Inclusive of calibration, deviation over temperature, supply voltage change, load change, shock, vibration, and 10 years aging.

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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.

MtronPTI Lead Free Solder Profile

