

M2035, M2036, and M2037 Series

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



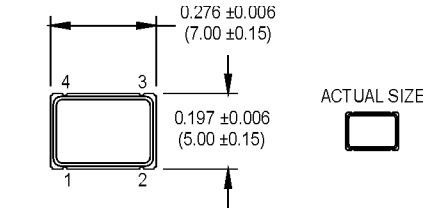
- ± 20 ppm stability
- Tri-state or standby function
- Ideal for WLAN and IEEE802.11 Applications
- Low power applications



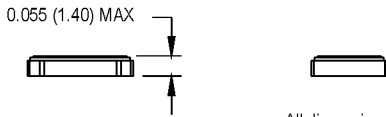
Ordering Information

	M203X	D	8	Q	C	N	00.0000 MHz
Product Series	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 6: ± 25 ppm	4: ± 50 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)							

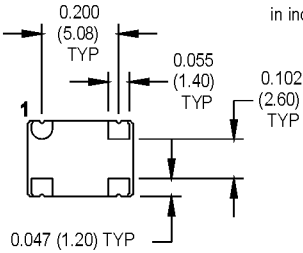
*-10°C to +70°C only



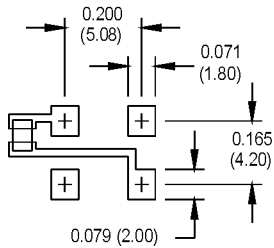
ACTUAL SIZE



All dimensions in inches (mm).



SUGGESTED SOLDER PAD LAYOUT



Pin Connections

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

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition
Electrical Specifications	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 20.001 to 50.000 MHz 50.001 to 67.000 MHz 67.001 to 125.000 MHz		15	mA	3.3V
					20	mA	
					30	mA	
					55	mA	
	Symmetry (Duty Cycle)		45		55	%	1/2 V _{dd}
	Rise/Fall Time	Tr/Tf	80.000 MHz 22.000 to 44.000 MHz		4	ns	See Note 2 10% to 90% V _{dd}
					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				
Environmental	Output Disable Time				150	ns	
	Output Enable Time				5	ms	
	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,

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.

MtronPTI Lead Free Solder Profile

