

M2035, M2036, and M2037 Series

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

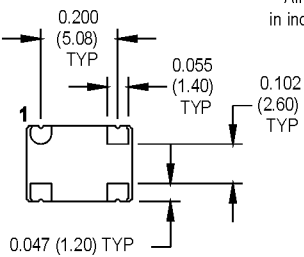
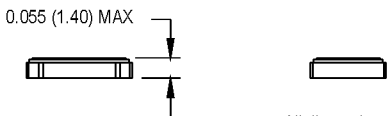
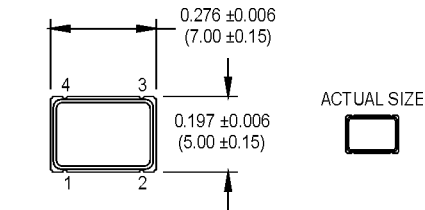


- ± 20 ppm stability
- Tri-state or standby function
- Ideal for WLAN and IEEE802.11 Applications
- Low power applications



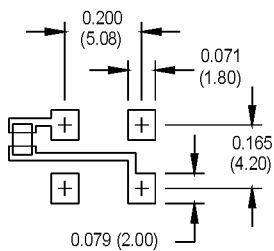
Ordering Information	
M203X	D 8 Q C N 00.0000 MHz
Product Series	M2035 = 2.85V M2036 = 3.0V M2037 = 3.3V
Temperature Range	D: -10°C to +70°C 6: -20°C to +70°C 2: -40°C to +85°C
Stability	3: ± 100 ppm 4: ± 50 ppm 6: ± 25 ppm 8: ± 20 ppm*
Output Type	Q: Standby Function T: Tri-state
Symmetry/Logic Compatibility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

*-10°C to +70°C only



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
	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 2.85 2.7	3.3 3.0 2.85	3.45 3.15 3.0	V	3.3V 3.0V 2.85V
	Input Current	I _{dd}			15 20 30 55	mA	3.3V
	1.500 to 20.000 MHz						
	20.001 to 50.000 MHz						
	50.001 to 67.000 MHz						
	67.001 to 125.000 MHz						
	Symmetry (Duty Cycle)		45		55	%	1/2 V _{dd}
	Rise/Fall Time	T _r /T _f			4 6	ns	See Note 2 10% to 90% V _{dd} 10% to 90% V _{dd}
	80.000 MHz						
	22.000 to 44.000 MHz						
	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 ⁻⁶ 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,

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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

