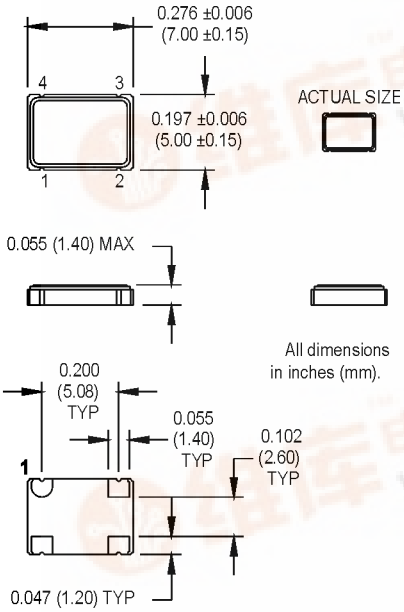
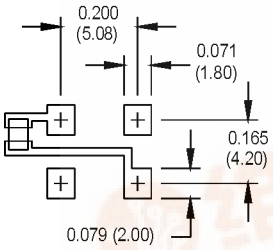
M2035, M2036, and M2037 Series

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



SUGGESTED SOLDER PAD LAYOUT



Pin Connections

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

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

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition
Electrical Specifications	Frequency Range	F	1.5		125	MHz	See Note 1
	Frequency Stability	ΔF/F			±20	ppm	See Note 2
	Operating Temperature	T_A	(See Ordering Information)				
	Input Voltage	Vdd	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	Idd					
	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 Vdd
	Rise/Fall Time	Tr/Tf					See Note 2
	80.000 MHz				4	ns	10% to 90% Vdd
	22.000 to 44.000 MHz				6	ns	10% to 90% Vdd
	Logic "1" Level	Voh	90% Vdd			V	
	Logic "0" Level	Vol			10% Vdd	V	
	Output Current	Ioh	-2			mA	
		Iol	+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^{-8} 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 Lead Free Solder Profile