Frequency Technology

MX5C

MEMS OSCILLATOR

FEATURES

- Silicon MEMS resonator based oscillator
- Low power oscillator
- Very high shock and vibration resistance
- Fast delivery
- 500 million hours MTBF



Item	Specification					
Frequency Range	1.0 - 110.0 MHz	115.0 - 137.0 MHz				
Output Logic	CMOS					
Overall Frequency Stability *	\pm 20 ppm \sim \pm 100 ppm (see options)					
Operating Temperature Range	$-20^{\circ} \sim +70^{\circ}$ C commercial application $-40^{\circ} \sim +85^{\circ}$ C industrial application					
Supply Voltage Vdd	+1.8V ±10% +2.5V ±10% +2.8V ±10%	$+3.0V \pm 10\%$ $+3.3V \pm 10\%$ $+2.5V \text{ to } 3.3V \pm 10\%$				
Supply Current	4 mA ~ 15 mA 4 mA ~ 15 mA 4 mA ~ 15 mA	4.5 mA ~ 20 mA 4.5 mA ~ 20 mA 4.5 mA ~ 20 mA				
Output Level	VOH ≥ 0.9 Vdd	VOL ≤ 0.1 Vdd				
Output Load	I5 pF other load capacitance possible , please consult us.					
Symmetry	45 / 55 %					
Rise / Fall time Fr/Ff	3 ns max					
Tri-state Enable (See options)	pin #I = high or open pin #I = low	pin #3 ==> oscillation pin #3 ==> high impedance				
Tri-state Power Down (See options)	pin #I = high or open pin #I = low	pin #3 ==> oscillation pin #3 ==> low output				
Standby current max.	5 μA max (for Power Down function)					
Start-up Time	5 ms max.					
RMS Jitter (12 kHz to 20 MHz band)	3 ps max.					
Packing Unit	1000pcs / reel					
Marking	Lot code only					
Shock Resistance	up to 50000 G					

^(*) Includes initial tolerance @+25°C , stability over operating temperature , stability vs. load change , stability vs. supply change and one year aging

Customer specifications on request





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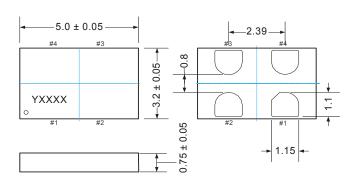
OPTIONS & ORDERING INFORMATION

MX5C						MHz
	Supply Voltage *	Operating Temp. *	Overall Stability *	Tri-state Function	Output Load *	Frequency in MHz
	V8.1+ = 81	F = -20° / +70°C	20 = ±20 ppm	E = Tri-state Enable	blanc = 15 pF	Please specify the frequency in MHz
	25 = +2.5V	K = -40° / +85°C	25 = ±25 ppm	B = Tri-state Power Down	H = >15 pF , consult us	requency in thinz
	28 = +2.8V		30 = ±30 ppm	F = None		
	30 = +3.0V		50 = ±50 ppm			
	33 = +3.3V		100 = ±100 ppm			
	2V3 = +2.5V to +3.3V					

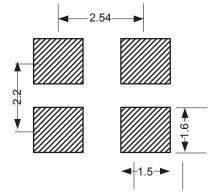
^{*} Note: Not all combinations are possible, please consult us.

OUTLINE DIMENSIONS (MM)

Package Size – Dimensions (Unit: mm)



Recommended Land Pattern (Unit: mm)





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Pin Connections

#1: E/D or NC

#2:GND

#3: Output

#4 :Vdd