Dynamic Engineers Inc.
2550 Gray Falls Dr., Suite#128, Houston, TX, 77077 USA
TEL: 1-281-870-8822 EMAIL: Sales@DynamicEng.com

XO2520BM01-LP-10MHz-221
Ultra-low Power Crystal Oscillator

Features and Benefits

Frequency range: 10MHz
Supply voltage: 0.9V
Current: 1.5mA Max.
Frequency stability vs. temperature: ±50PPM
Aging: ±3PPM per year
Operating temperature: -20°C to +70°C
Size: 2.5x2.0x0.81 mm

Typical Applications

IoT
Smartphone
Digital Camera
Game Console
Wearable Device
Digital Consumer Electronics

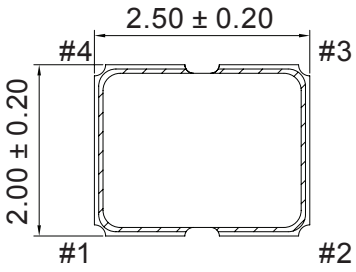
Description

XO2520BM01-LP-10MHz-221 is the low power crystal oscillator.
The power consumption can be less than 1.5mA. It can be widely used in the low power consumption applications.

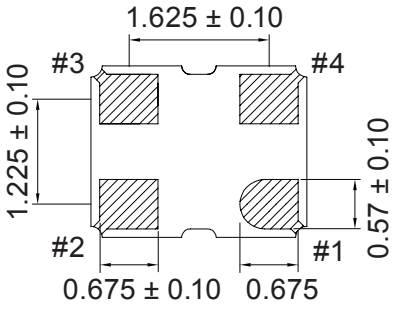
Mechanical Drawing & Pin Connections

Drawing No: MD220022-1

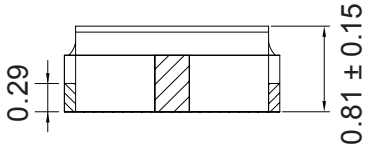
Top View



Bottom View



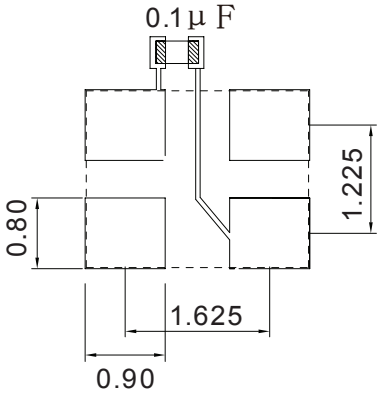
Side View



Pin#	Function
1	Tri-state
2	GND
3	Output
4	Vcc

Unit in mm
1mm = 0.0394 inches

Recommended Soldering Pattern



To ensure optimal oscillator performance, place a by-pass capacitor of 0.1uF as close to the part as possible between Vcc and GND PAD

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Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	f_0			10		MHz	
RF Output							
Output Waveform				CMOS			
Load				15		pF	
Duty Cycle			45		55	%	
Rise & Fall Time					3	ns	
Tri-State (Input to Pin1)		Enable (High voltage or floating)	0.7 V_{cc}			V	
		Disable (Low voltage or GND)			0.3 V_{cc}	V	
Startup Time					4	ms	
Power Supply							
Voltage	V_{cc}	±5%		0.9		V	
Current		At 15pF load			1.5	mA	
		No load condition			1.0	mA	
Stand by Current					100	uA	
Frequency Stability							
Versus Temperature		@-20°C to +70°C			±50	ppm	
Aging@+25°C		1st year			±3.0	ppm	
Environmental Conditions							
Operating temperature range		-20°C to +70°C					