



Dynamic Engineers Inc.

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

LC) ' \$\$\$ DSgYf]Yg
SMD 5x3.2mm Crystal Oscillator

Features and Benefits

- Surface Mount Package
- High Stability
- 1.8V, 2.5V, 3.0V, 3.3V Supply Voltage Operation
- CMOS Output
- 4-55MHz frequency range

Typical Applications

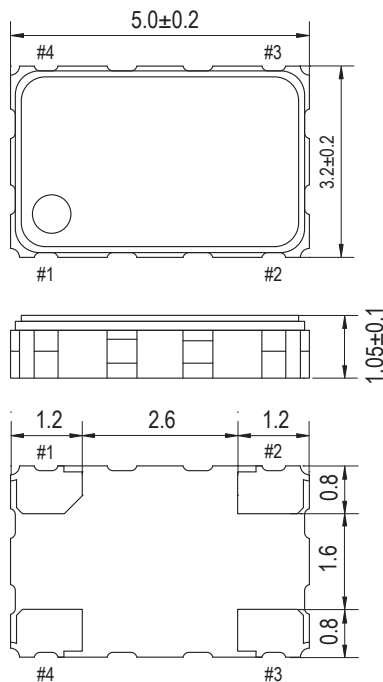
- Wireless, WLAN
- DSC, PDA, Notebook
- Mobile phone

Description

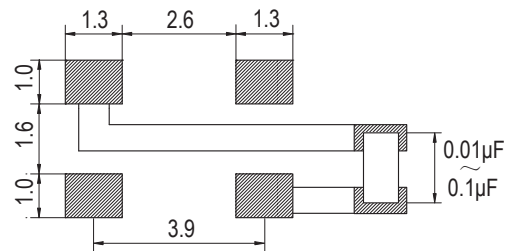
XO5300AP_series offers high stability and a compact package to suit the different communication needs.

Mechanical Drawing & Pin Connections

Drawing No: MD18001' -1



SOLDERING PATTERN



PIN	CONNECTION	
	1	"L"
2	GND	
3	Z	OUTPUT
4	V _{DD}	

Z : high impedance

Unit in mm
1mm = 0.0394 inches



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency Range	F _{nom}		4		55	MHz	
Standard Frequency			5.000, 10.000, 12.000, 16.000, 20.000, 24.000, 32.000, 40.000, 44.000			MHz	
RF Output							
Signal Waveform			CMOS				
Load	R _L		15			pF	
H-Level Voltage	V _H		90% V _{dd}			V	
L- Level Voltage	V _L				10%V _{dd}	V	
Duty Cycle		at 1/2 VDD level	45		55	%	
Rise/Fall time		10% VDD to 90% VDD level			5	ns	
Start up time					10	ms	
Power Supply							
Supply Voltage	V _S	±10%		1.8V,2.5V,3.0V,3.3V		V	
Stand-by control voltage (Pin#1)		Internal crystal oscillation to be halted (Pin#1 = VIL)		VIH: 70% VDD min. VIL : 30% VDD max			
Input current (Pin#1 = Open or VIH)		No load			7.5	mA	
Stand-by current		Internal crystal oscillation to be halted (Pin#1 = VIL)			10	uA	Pin#1 = VIL
Frequency Adjustment Range							
Disable delay time					100	ns	
Enable delay time					10	ms	
Frequency Stability							
SSB Phase Noise		(at VDD = +1.8V & 48.000 MHz)	-135 dBc / Hz, Typical at 1 kHz offset -162 dBc / Hz, Typical at 1 MHz offset				
RMS jitter (12 kHz to 20.000 MHz band)		at VDD = +1.8V & 48.000 MHz		168		fs	
Overall conditions		The frequency stability is inclusive of frequency tolerance (+25°C), temperature stability(-40°C to 85°C),input voltage change, load change, reflow frequency shift and aging (1st year at +25°C)	Option A ±15	Option B ±10	Option C ±8	ppm	
Environmental,Mechanical Conditions							
Operating temperature range	-40°C to 85°C						
Reflow condition	+250°C±10°C for 10 seconds; +170°C±10°C for 1 to 2 minutes (preheating)						
Absolute Max. Ratings							
Supply Voltage	-0.3V to +4.0V DC						
Storage temperature	-40°C to 85°C						