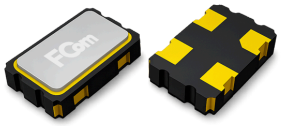
FCom Crystal Oscillator

Series FCO-5C

Standard Crystal Oscillator 5.0×3.2 mm



Feature

- Typical 5.0×3.2×1.2mm ceramic SMD package
- Tight symmetry (45 to 55%) available
- Operation voltage: 1.8V, 2.5V, 3.3V
- Tri-state enable/disable

Application

- GPS, Mobile Phone
- WLAN, Wireless, Fiber/10Gbit Ethernet
- Netbook, PDA, DSC

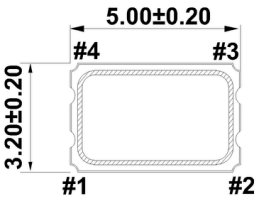
ELECTRICAL SPECIFICATIONS

Parameters		Symbol	Min.	Typ.	Max.	Units	Notes	
Frequency Range		F	0.0137~160			MHz		Test condition Ambient temperature: 25 ± 5°C Relative humidity: 40% ~ 70%
Standard Frequency		F(ST)	2.048, 25, 26, 27, 50, 66.667, 100, 125			MHz		
Supply Voltage		Vdd	1.8V	2.5V	3.3V	V	Typ.	
Current Consumption	13.7 kHz ≦ Fo ≦ 93 kHz	Icc	1	1	1	mA	Max.	
	0.3125 MHz ≦ Fo < 40 MHz		7	8	10			
	40 MHz ≦ Fo < 75 MHz		15	18	20			
	75 MHz ≦ Fo < 135 MHz		25	30	35			
	135 MHz ≦ Fo < 160 MHz		-	40	45			
Transition Time: Rise/Fall Time	13.7 kHz ≦ Fo ≦ 93 kHz	Tr/Tf	50	50	50	nSec	Max. @10% ~ 90% @ load 15pF	
	0.3125 MHz ≦ Fo < 100 MHz		5	5	5			
	100 MHz ≦ Fo < 160 MHz		3	3	3			
Stand by Current		Icc(ST)	-	-	10	uA		
Output Load (CMOS)		CL	15			pF		
Output Level		VoH	90% Vdd	-	-	V	Output High	
		VoL	-	-	10% Vdd	V	Output Low	
Tri-State Mode (Input to Pin 1)		VIH	70% Vdd	-	-	V	Enable	
		VIL	-	-	30% Vdd	V	Disable	
Period Jitter		Pk	-	-	40	pSec		
RMS Phase Jitter		PJ	-	-	1.0	pSec	Integrated 12 KHz~20 MHz	
Duty Cycle		TH/T	45	~	55	%		
Start-up Time		Tosc	-	-	5	mSec		
Aging		ppm/yr	±3			ppm/yr	1st. Year at 25°C	

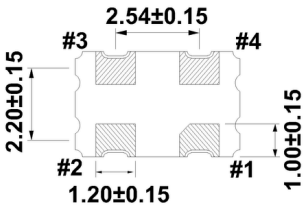
Note : The table shows common spec. if you have special spec. requirement , please feel free to contact our salesperson.

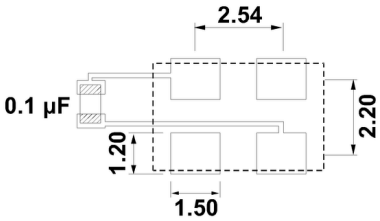
DIMENSION(mm)

TOP VIEW



BOTTOM VIEW

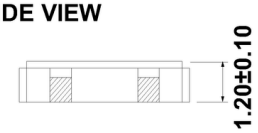




Solder Pad Layout(mm)

To ensure optimal oscillator performance, place a by-pass capacitor of 0.1μF as close to the part as possible between Vdd and GND pads.

SIDE VIEW



PIN#	Function
1	Tri-State
2	GND
3	Output
4	VDD

FREQ. STABILITY vs. TEMP. RANGE

Temp.(°C) \ ppm	± 20	± 25	± 50
@-20~70°C	○	○	○
@-40~85°C	△	△	○
@-40~105°C	×	△	○
@-40~125°C	×	×	△

○: Available △: Conditional ×: Not available
Inclusive of calibration @25°C, operating temperature range, input voltage variation, load variation, aging (1st year), shock, and vibration.