

FCom Crystal Oscillator

Series FCO-500

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

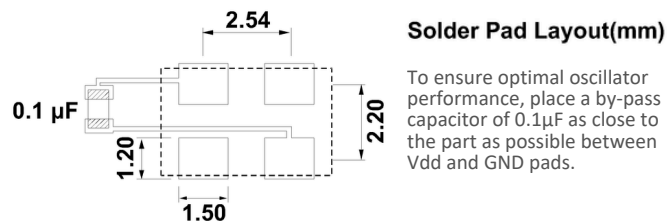
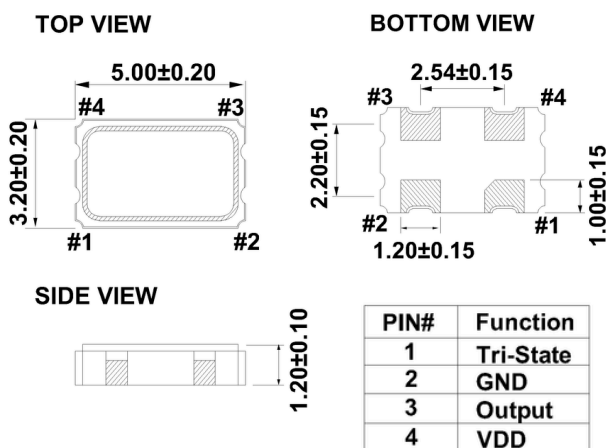
ELECTRICAL SPECIFICATIONS

Parameters	Symbol	Min.	Typ.	Max.	Units	Notes
Frequency Range	F	0.0137~160			MHz	
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	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	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

Test condition
Ambient temperature:
25 ± 5°C
Relative humidity:
40% ~ 70%

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

DIMENSION(mm)



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.

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.