

FCom Crystal Oscillator

Series FCO-3P-UJ

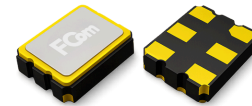
Low Jitter Oscillator 3.2×2.5 mm

Feature

- Frequency support from 10MHz to 250MHz
- Very low phase jitter: <1 pS(0.8 pS, typ.) RMS
- Singled-end output : CMOS
- Tri-state enable/disable

Application

- High-Speed Gigabite Ethernet
- Enterprise Server, SAS/SATA
- Microprocessors/DSP/FPGA
- Broadband Access/Smart Grid



ELECTRICAL SPECIFICATIONS

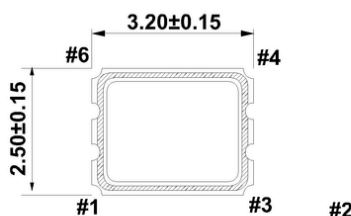
Parameters		Symbol	Min.	Typ.	Max.	Units	Notes
Frequency Range		F	10~250			MHz	
Supply Voltage		Vdd	-	2.5V	3.3V	V	Typ.
Supply Current		Icc(ST)	-	45	50	mA	
Output Loading	10MHz~200MHz		-	15	15	pF	Max.
	200MHz~250MHz		-	5	5		
Transition Time: Rise Time/Fall Time		Tr/Tf	-	3	3	nSec	Max. @10% ~ 90%
Stand by Current		Icc(ST)	-	-	18	mA	
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 2)		VIH	70% Vdd	-	-	V	Enable
		VIL	-	-	30% Vdd	V	Disable
Phase Noise @VDD=3.3V, f _{out} =250MHz	1kHz offset		-	-107	-	dBc/Hz	
	10kHz offset		-	-111	-		
	100kHz offset		-	-114	-		
	1MHz offset		-	-125	-		
	20MHz offset		-	-147	-		
RMS Phase Jitter		PJ	-	0.8	1.5	pSec	Integrated 12KHz~20MHz
Duty Cycle		TH/T	45	~	55	%	
Start-up Time		Tosc	-	-	10	mSec	
Aging		ppm/yr	±3			ppm/yr	1st. Year at 25°C

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

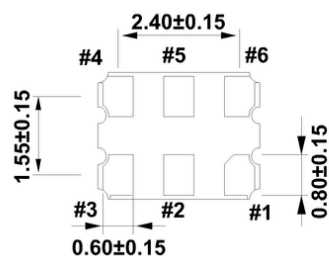
Note : The table shows common spec. if you have special spec. requirement , please feel free to contact our salesperson.

DIMENSION(mm)

TOP VIEW



BOTTOM VIEW



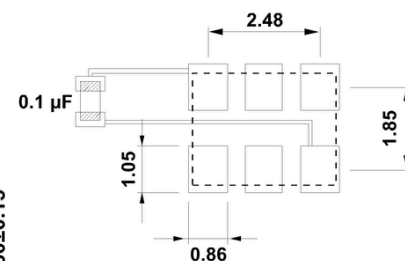
SIDE VIEW



PIN#	Function
1	NC/Tri-State
2	Tri-State/NC
3	GND
4	Output
5	No Connection
6	Supply Voltage

○: Available △: Conditional ×: Not available

Inclusive of calibration @25°C, operating temperature range, input voltage variation, load variation, aging (1st year), shock, and vibration.



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	± 25	± 50
@-10~60°C		○	○
@-20~70°C		○	○
@-40~85°C		△	○
@-40~105°C		×	△