

FCom Crystal Oscillator

Series FCO-7L-UJ



Low Jitter Oscillator 7.0×5.0 mm

Feature

- Frequency support up to 220MHz
- Very low phase jitter: < 100 fs RMS from 12kHz - 20MHz
- Tri-state enable/disable

Application

- 40Gbit/100Gbit Ethernet, MAN
- SONET, Fiber Channel
- WLAN/WiMAX, xDSL
- Test Instrumentation

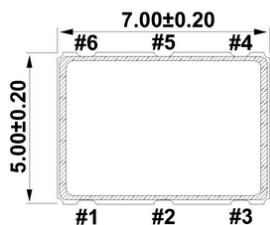
ELECTRICAL SPECIFICATIONS

Parameters		Symbol	LVPECL				Units	Notes	
			3.3V		2.5V				
			Min.	Max.	Min.	Max.			
Frequency Range		F	70~170		100~160		MHz		Test condition Ambient temperature: 25 ± 5°C Relative humidity: 40% ~ 70%
Standard Frequency		F(ST)	100,125,155.52,156.25				MHz		
Supply Current		Icc	-	75	-	75	mA		
Transition Time	Rise/Fall Time	Tr/Tf	-	1.0	-	1.0	nSec	From 20% ~ 80%	
Output Level		VoH	2.275	-	1.475	-	V	Output High	
		VoL	-	1.68	-	1.095	V	Output Low	
Tri-State Mode		VIH	70% Vdd	-	70% Vdd	-	V	Enable	
		VIL	-	30% Vdd	-	30% Vdd	V	Disable	
Phase Noise	100 Hz	PN	-100				dBc/Hz	@ 156.25MHz	
	1 kHz		-130						
	10 kHz		-150						
RMS Phase Jitter	@156.25MHz	PJ	< 100 fs RMS Integrated 12 kHz ~ 20 MHz				pSec		
Duty Cycle		TH/T	45 ~ 55				%		
Stand by Current		Icc(ST)	-	30	-	30	μA		
Output Load		RL	50Ω, VDD – 2V				/		
Start-up Time		Tosc	10				mSec	Max	
Aging		ppm/yr	±3				ppm/yr	1st. Year at 25°C	

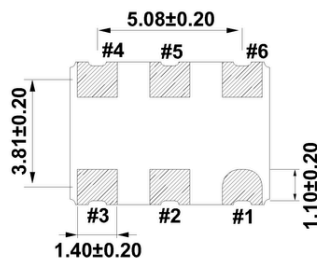
⚠ Note : The table shows common spec. if you have special spec. requirement , please feel free to contact our salesperson.

DIMENSION(mm)

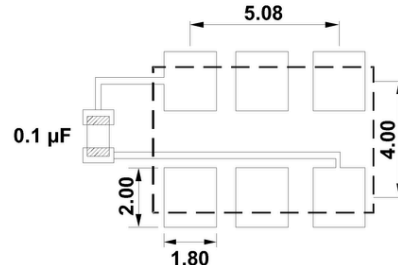
TOP VIEW



BOTTOM VIEW

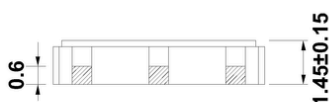


Solder Pad Layout(mm)



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	NC/Tri-State
2	Tri-State/NC
3	GND
4	Output
5	Comp.Output
6	VDD

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

FREQ. STABILITY vs. TEMP. RANGE

Temp.(°C)	ppm	± 25	± 50
@-10~60°C		△	○
@-20~70°C		△	○
@-40~85°C		×	○