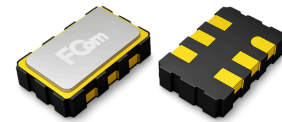


FCom Crystal Oscillator

Series FCO-5L-PG

Differential Oscillator 5.0×3.2 mm



Feature

- Industry Standard 5.0 x 3.2 x 1.25
- Very low phase jitter: 0.6 pS, typ. RMS from 12kHz - 20MHz
- Fast delivery
- Tri-state enable/disable

Application

- Storage Area Network, SONET
- High-Speed Gigabit Ethernet, Fiber Channel
- Enterprise Server, SAS/SATA
- Microprocessors/DSP/FPGA
- Broadband Access, Smart Grid

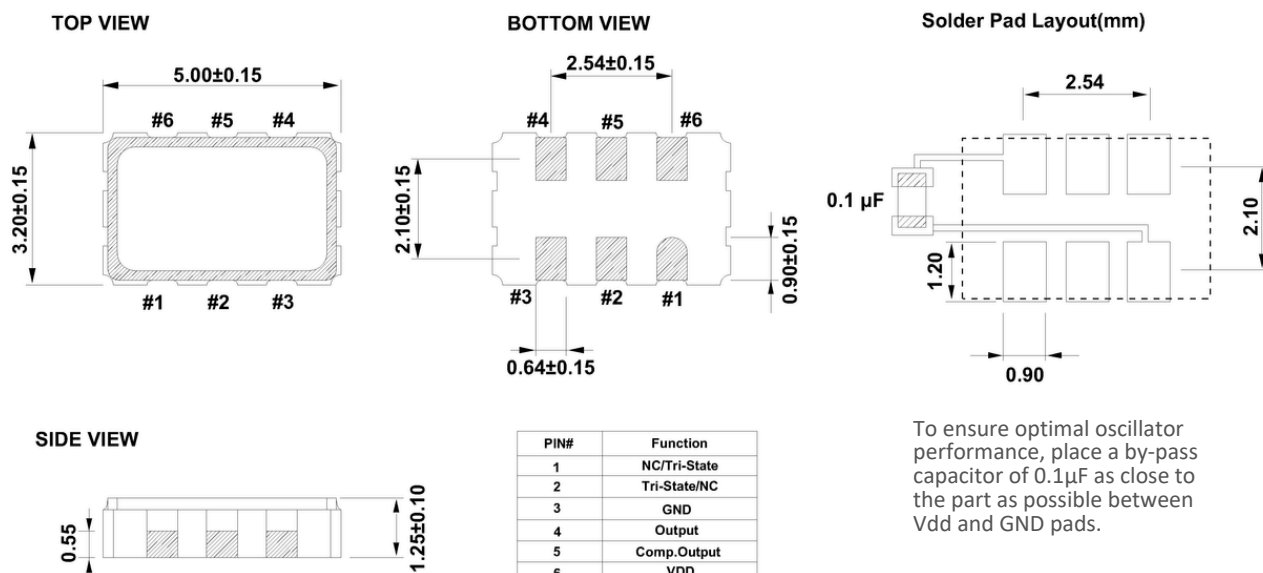
ELECTRICAL SPECIFICATIONS

Parameters		Symbol	LVPECL				Units	Notes	
			3.3V		2.5V				
			Min.	Max.	Min.	Max.			
Frequency Range		F	10~1500				MHz		Test condition Ambient temperature: 25 ± 5°C Relative humidity: 40% ~ 70%
Standard Frequency		F(ST)	106.25, 125, 133.33, 150, 155.52, 156.25, 187.5, 212.5, 312.5, 622.08				MHz		
Supply Current		Icc	-	50	-	50	mA		
Transition Time	Rise Time	Tr	-	1.0	-	1.0	nSec	Measured from 20% ~ 80%	
	Fall Time	Tf	-	1.0	-	1.0			
Output Level		VoH	2.275	-	1.475	-	V	Output High	
		VoL	-	1.68	-	0.88	V	Output Low	
Tri-State Mode		VIH	70% Vdd	-	70% Vdd	-	V	Enable	
		VIL	-	30% Vdd	-	30% Vdd	V	Disable	
Phase Noise		PN	Typ.	Max.	Typ.	Max.	dBc/Hz	At VDD=3.3V, fout=156.25MHz	
100 Hz			-	-85	-	-85			
1 kHz			-	-105	-	-105			
10 kHz			-	-115	-	-115			
RMS Phase JitterIntegrated 12 kHz~20MHz		PJ	-	1.2	-	1.2	pSec		
Duty Cycle		TH/T	45 ~ 55				%		
Output Load		RL	50Ω, VDD – 2V				/		
Start-up Time		Tosc	10				mSec	Max	
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)



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

Parameters		Symbol	LVDS				Units	Notes	
			3.3V		2.5V				
			Min.	Max.	Min.	Max.			
Frequency Range		F	10~1500				MHz		Test condition Ambient temperature : 25 ± 5°C Relative humidity : 40% ~ 70%
Standard Frequency		F(ST)	106.25, 125, 133.33, 150, 155.52, 156.25, 187.5, 212.5, 312.5, 622.08				MHz		
Supply Current		Icc	-	50	-	50	mA		
Transition Time	Rise Time	Tr	-	1.0	-	1.0	nSec	Measured from 20% ~ 80%	
	Fall Time	Tf	-	1.0	-	1.0			
Output Level		VoH	-	1.6	-	1.6	V	Output High	
		VoL	0.9	-	0.9	-	V	Output Low	
Tri-State Mode		VIH	70% Vdd	-	70% Vdd	-	V	Enable	
		VIL	-	30% Vdd	-	30% Vdd	V	Disable	
Phase Noise		PN	Typ.	Max.	Typ.	Max.	dBc/Hz	At VDD=3.3V, fout=156.25MHz	
100 Hz			-	-85	-	-85			
1 kHz			-	-105	-	-105			
10 kHz			-	-115	-	-115			
RMS Phase JitterIntegrated 12 kHz~20MHz		PJ	-	1.2	-	1.2	pSec		
Duty Cycle		TH/T	45 ~ 55				%		
Output Load		RL	100Ω				/		
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.

FREQ. STABILITY vs. TEMP. RANGE

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

○: Available △: Conditional ×: Not available

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