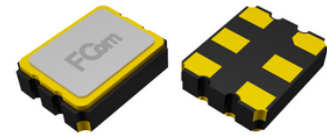


FCom Low Jitter FASTVCXO

Series FVC-3P-LJ

SMD Low Jitter FASTVCXO 3.2×2.5 mm



Feature

- Low power supply voltage: 3.3, 2.5 supply options
- Frequency support from 10MHz to 250MHz
- Low phase jitter typical: 0.6 ps RMS from 12kHz to 20MHz
- Tri-state enable/disable

Application

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

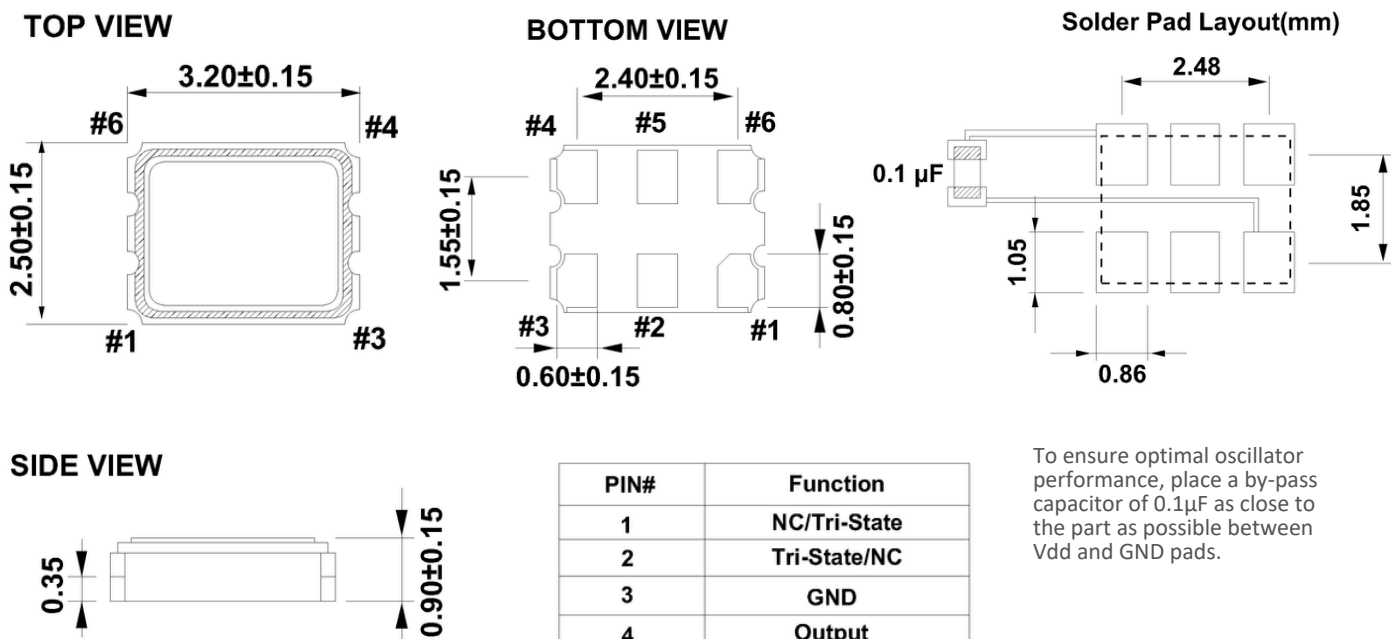
ELECTRICAL SPECIFICATIONS

Parameters		Symbol	CMOS				Units	Notes	
			3.3V		2.5V				
			Min.	Max.	Min.	Max.			
Frequency Range		F	10~250				MHz		Test condition Ambient temperature: 25 ± 5°C Relative humidity: 40% ~ 70%
Supply Current		Icc	-	50	-	45	mA		
Transition Time	Rise Time	Tr	-	3.0	-	3.0	nSec	Measured from 10% ~ 90%	
	Fall Time	Tf							
Output Level		VoH	2.97	-	2.25	-	V	Output High	
		VoL	-	0.33	-	0.25	V	Output Low	
Tri-State Mode (Input to Pin 2)		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=250MHz	
1 kHz			-107	-	-107	-			
10 kHz			-111	-	-111	-			
100 kHz			-114	-	-114	-			
1 MHz			-125	-	-125	-			
20 MHz			-147	-	-147	-			
RMS Phase Jitter (12kHz~20 MHz)	Fractional Mode	PJ	0.8	1.5	0.8	1.5	pSec		
	Integer Mode		0.6	1.2	0.6	1.2			
Duty Cycle		TH/T	45 ~ 55				%		
Stand by Current		Icc(ST)	-	18	-	18	μA		
Output Loading	10~200MHz	RL	-	15	-	15	pF		
	200~250MHz		-	5	-	5			
Start-up Time		Tosc	10				mSec	Max	
Parameters		Symbol	Control Voltage Function on Pin 1				Units	Notes	
			3.3V		2.5V				
			Min.	Max.	Min.	Max.			
Control Voltage Center		Vc	1.65		1.25		V		
Control Voltage Range			0.3	3	0.25	2.25			
Frequency Pulling Range			±50	±150	±50	±150	ppm		
Linearity			5	10	5	10	%		
Modulation Bandwidth			10	-	10	-	kHz		
VC Input Impedance			1	-	1	-	MΩ		

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 $0.1 \mu\text{F}$ 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	×	△

○: Available △: Conditional ×: Not available

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