

FCom Crystal Oscillator

Series FCO-300



Standard Clock Oscillator 3.2×2.5 mm

Feature

- Typical 3.2 x 2.5 x 0.95 mm package
- Tight symmetry (45 to 55%) available
- Operation voltage: 1.8V, 2.5V, 3.3V
- Tri-state enable/disable

Application

- WLAN/WiMax
- Mobile Phone
- DSC, Set-top Box, HDTV

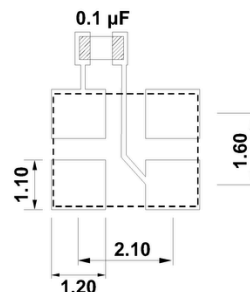
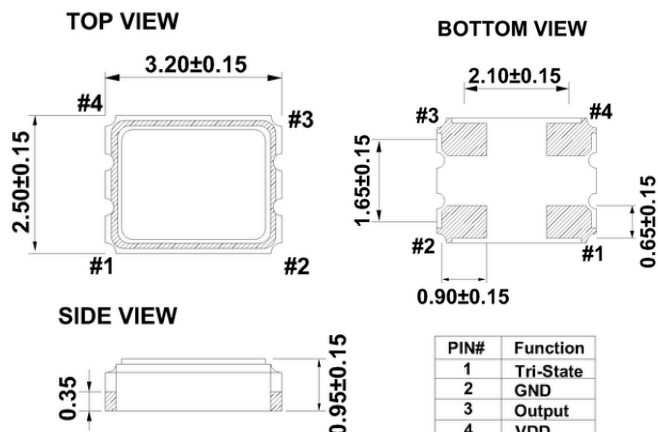
ELECTRICAL SPECIFICATIONS

Parameters	Symbol	Min.	Typ.	Max.	Units	Notes
Frequency Range	F	1.25~125			MHz	
Standard Frequency	F(ST)	24, 26, 30, 40			MHz	
Supply Voltage	Vdd	1.8V	2.5V	3.3V	V	Typ.
Current Consumption	@15pF Load	Icc	7	10	15	mA
	1.25 MHz ≤ Fo < 10 MHz		1.2	1.5	1.5	
	10 MHz ≤ Fo < 20 MHz		1.5	2	2	
	20 MHz ≤ Fo < 80 MHz		1.5	2.5	3	
	80 MHz ≤ Fo < 125 MHz		5	7	8	
Transition Time: Rise/Fall Time	1.25 MHz ≤ Fo < 10 MHz	Tr/Tf	5	4	3	nSec
	10 MHz ≤ Fo < 20 MHz		4	3	3	
	20 MHz ≤ Fo < 80 MHz		4	3	3	
	80 MHz ≤ Fo < 125 MHz		4	3	3	
Stand by Current	@-40°C to 85°C	Icc(ST)	-	-	10	uA
	@-40°C to 125°C		-	-	20	
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	-	-	2	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.