

# CRYSTAL OSCILLATOR

## COT22X SERIES



### Features

- External dimensions:2.5×2.0×0.85mm
- Frequency Range :9.5~60MHz,LVCMOS Output Logic
- Tolerance:±2ppm accuracy @ 25°C , ±2.5ppm over -40~+85°C
- Applications for Wireless Connectivity,Smart grid

### Specifications

Parameter	3.3V		2.5V		1.8V		Unit
	Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage Variation( $V_{DD}$ ) ±5%	3.135	3.465	2.375	2.625	1.71	1.89	V
Frequency Range	9.5	60	9.5	60	9.5	60	MHz
Standard Frequency 9.5≤F <sub>o</sub> ≤60MHz	--	10	--	7	--	5	mA
Duty Cycle	45	55	45	55	45	55	%
Output Level(CMOS) Output High(Logic"1")	2.97	--	2.25	--	1.62	--	V
Output Low(Logic"0")	--	0.33	--	0.25	--	0.18	
Transition Time:Rise/Fall Time+	--	8	--	8	--	8	nSec
Start Time	--	5	--	5	--	5	nSec
Tri-state(Input to pin 1)Enable(High voltage or floating)	2.31	--	1.75	--	1.26	--	V
Disable(Low voltage or GND)	--	0.99	--	0.75	--	0.54	
RMS Phase Jitter (integrated 12KHz-20MHz)	--	1	--	1	--	1	pSec
Phase Noise@26MHz 10Hz	--	-80	--	-80	--	-80	dBc/ Hz
100Hz	--	-110	--	-110	--	-110	
1KHz	--	-130	--	-130	--	-130	
10KHz	--	-145	--	-145	--	-145	
Aging(@25°C 1 <sup>st</sup> yeat)	--	±1	--	±1	--	±1	ppm
Storage Temp.Range	-55	125	-55	125	-55	125	°C

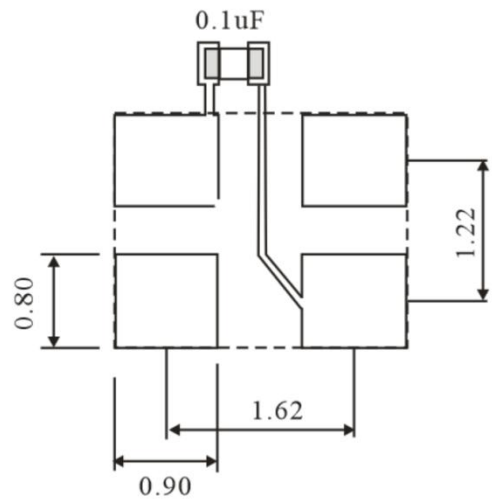
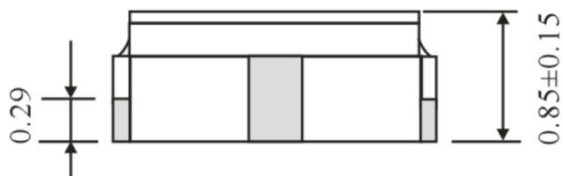
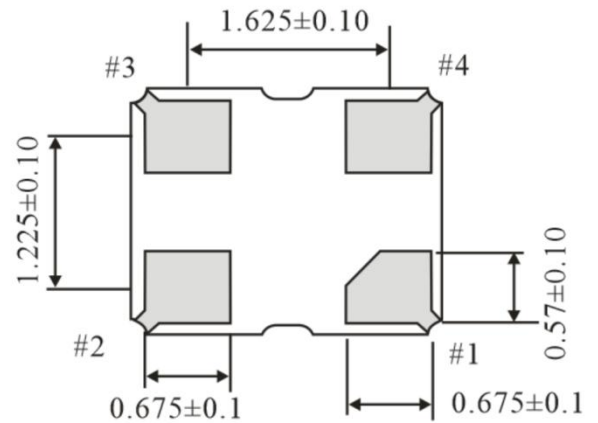
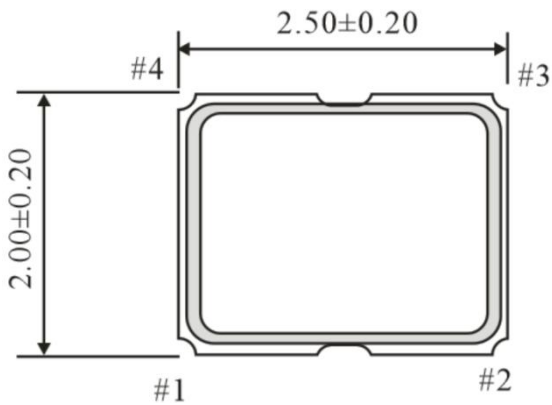
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### Dimensions

(Unit:mm)



PIN	FUNCTION
1	T/S
2	GND
3	OUT
4	VDD

To ensure optional 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