

TCXO

5.3 TC2520C

2.5 x 2.0 mm CMOS Temperature
Compensated Crystal Oscillator

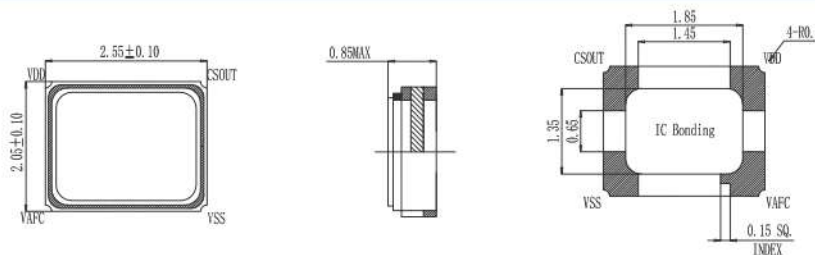
FEATURES

- Tolerance: ± 2 ppm accuracy @25°C, ± 2.5 ppm over -40° ~ +85°C
- LVCMOS Output Logic
- Tight symmetry (45 to 55%) available
- Operation voltage: 1.8V, 2.5V, 3.3V
- Tri-state enable/disable
- Femto second phase jitter and -145dBc/Hz at 10kHz offset

TYPICAL APPLICATION

- Wireless Connectivity
- Smart grid

DIMENSIONS



ELECTRICAL SPECIFICATION

Parameter		3.3V		2.5V		1.8V		Unit
		Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage Variation(VDD) $\pm 5\%$		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
Supply Current $9.5 \text{ MHz} \leq F_o \leq 60 \text{ MHz}$		—	10	—	7	—	5	mA
Duty Cycle		45	55	45	55	45	55	%
Output Level (CMOS)	Output Hight (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	mSec
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 @ 26 MHz	10 Hz	—	-80	—	-80	—	-80	dBc/Hz
	100 Hz	—	-110	—	-110	—	-110	
	1 KHz	—	-130	—	-130	—	-130	
	10 KHz	—	-145	—	-145	—	-145	
Aging (@25°C 1st year)		—	± 1	—	± 1	—	± 1	ppm
Storage Temp. Range		-55	125	-55	125	-55	125	°C

FREQ. STABILITY vs. TEMP. RANGE

Temp.(°C)	ppm	± 2.5	± 5	± 10
-40 ~ +85		○	○	○
-40 ~ +90		△	○	○
-40 ~ +105		×	△	○

Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.

+Transition times are measured between 10% and 90% of VDD, with an output load of 15pF.

*o: Available △: Condition X: Not available

Note: not all combination of options are available. Other specifications may be available upon request. Specifications subject to change without notice.