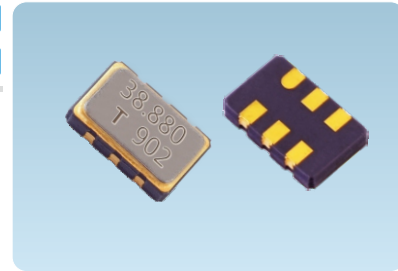


TOW TYPE

Typical 5.0 × 3.2 × 1.25mm
Low Phase Jitter



Crystal Oscillator

Feature

- Typical 5.0 × 3.2 × 1.25 mm hermetically sealed ceramic package.
- Very low jitter performance: typical 0.3 pS RMS from 12k-20MHz.
- Fundamental/3rd overtone crystal design.
- Output frequency up to 320 MHz.
- Tri-state enable/disable.

Typical Application

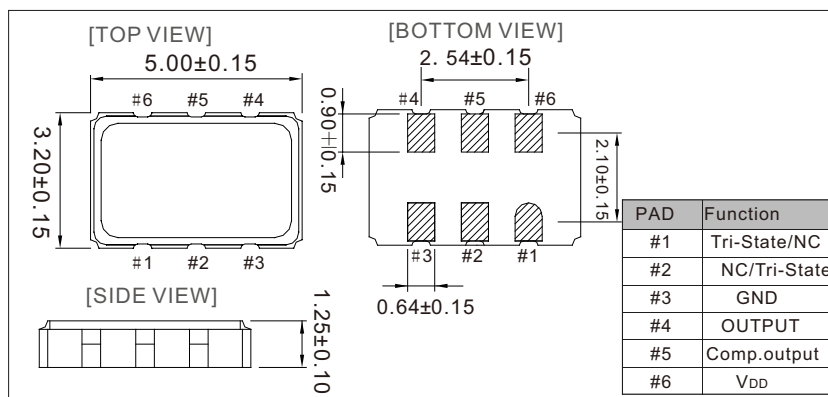
- 10G-BIT, Ethernet, Fiber Channel, Storage Area Network, SONET
- Enterprise Servers, Reference clocks for ADC and DAC
- Telecom

Specifications

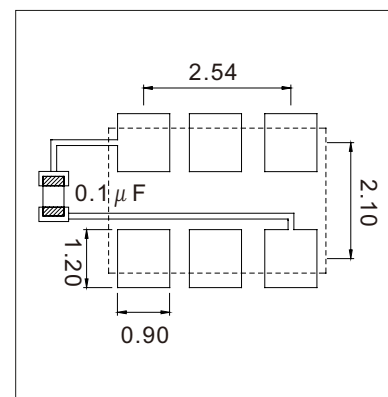
Parameter	LVPECL				LVDS				Unit	
	3.3V		2.5V		3.3V		2.5V			
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.		
Supply Voltage Variation(VDD)	3.135	3.465	2.375	2.625	3.135	3.465	2.375	2.625	V	
Frequency Range	10	320	10	320	10	320	10	320	MHz	
Standard Frequency	25, 106.25, 125, 156, 25.161, 1328, 212.5									
Supply Current 10Mhz ≤ Fo < 160MHz	-	75	-	75	-	50	-	50	mA	
160Mhz ≤ Fo < 250MHz	-	100	-	100	-	50	-	50		
250 Mhz ≤ Fo < 320MHz	-	100	-	100	-	65	-	65		
Output Level Output High(Logic"1")	2.275	-	1.475	-	-	1.6	-	1.6	V	
Output Low(Logic"0")	-	1.68	-	0.88	0.9	-	0.9	-		
Transition Time; Rise/Fall Time+	-	1.0	-	1.0	-	1.0	-	1.0	nSec	
Start Time	-	3	-	3	-	3	-	3	mSec	
Tri-State(Input to Pin 2 or Pin 1)									V	
Enable (High voltage or floating)	0.7V _{DD}	-	0.7V _{DD}	-	0.7V _{DD}	-	0.3V _{DD}	-		
Disable(Low voltage or GND)	-	0.3V _{DD}	-	0.3V _{DD}	-	0.3V _{DD}	-	0.3V _{DD}		
RMS Phase Jitter(Integrated 12KHz~20MHz)									pSec	
Fo < 80MHz	-	1	-	1	-	1	-	1		
80 Mhz ≤ Fo < 125MHz	-	0.5	-	0.5	-	0.5	-	0.5		
125 Mhz ≤ Fo < 170MHz	-	0.3	-	0.3	-	0.3	-	0.3		
170 Mhz ≤ Fo < 200MHz	-	0.5	-	0.5	-	0.5	-	0.5		
200 Mhz ≤ Fo	-	0.3	-	0.3	-	0.3	-	0.3		
phase Noise @156.25 MHz	100Hz	-	-95	-	-90	-	-90	-	-90	dBc/Hz
	1KHz	-	-125	-	-125	-	-120	-	-120	
	10KHz	-	-140	-	-140	-	-140	-	-140	
Aging(@25°C 1st year)		-	±3	-	±3	-	±3	-	±3	ppm
Storage Temp. Range		-55	125	-55	125	-55	125	-55	125	°C

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

Dimension(mm)



Solder pad layout(mm)



Frequency Stability Vs. Temperature Range

Temp.(°C)	Ppm	±25	±50
-10~+60		✓	✓
-20~+70		✓	✓
-40~+85		+	✓
-40~+125		×	✓

✓ Available + Conditional × Not Available

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

Q.C
PASS

T1903A