

TL7 Series

7.0*5.0mm SMD PECL/LVDS Crystal Oscillator

FEATURE

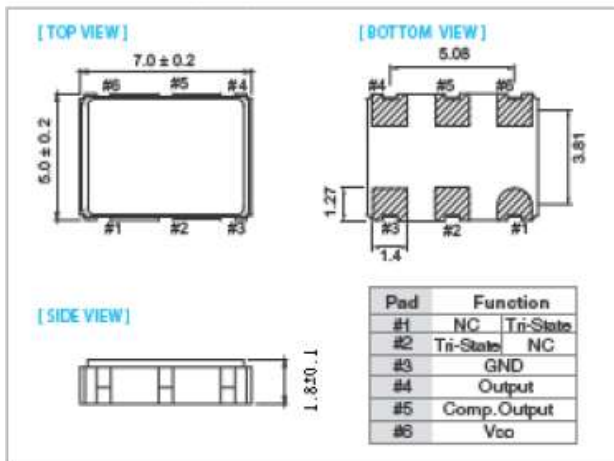
- Typical 7.0*5.0*1.6 mm hermetically sealed ceramic package.
- Low jitter performance: typical <1Ps RMS from 12k-20MHz.
- Output frequency up to 800MHz
- LVPECL output
- Tri-state enable/disable



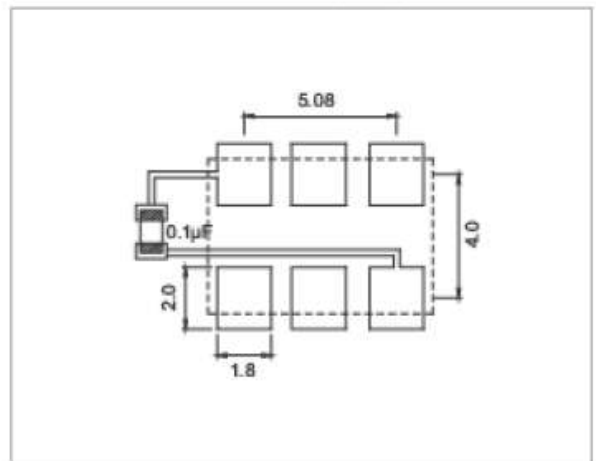
TYPICAL APPLICATION

- 10G-BIT, Ethernet, Fiber Channel, GbE
- Storage Area Network, SONET
- Microprocessors/DSP/FPGA

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



TL7 Series

7.0*5.0mm SMD PECL/LVDS Crystal Oscillator

ELECTRICAL SPECIFICATION

Parameter	PECL		unit
	3.3 V		
	Min.	Max.	
Supply Voltage Variation (V_{DD}) 10%	2.97	3.63	V
Frequency Range	100	800	MHz
Standard Frequency	200, 250, 312.5, 622.08		
Supply Current			
100 MHz ≤ F _o < 160 MHz	–	75	mA
160 MHz ≤ F _o < 800 MHz	–	100	
Output Level			
Output High (Logic "1")	2.275	–	V
Output Low (Logic "0")	–	1.68	
Transition Time: Rise/Fall Time⁺	–	1.0	nSec
Start Time	–	3	mSec
Tri-State(Input to Pin 2 or Pin 1)			
Enable (High voltage or floating)	0.7 V _{DD}	–	V
Disable (Low voltage or GND)	–	0.3 V _{DD}	
RMS Phase Jitter (Integrated 12 KHz ~ 20 MHz)	–	1	pSec
Phase Noise	100 Hz	–	dBc/Hz
	1 KHz	–95	
	10 KHz	–105	
Aging (@ 25°C 1st year)	–	±3	ppm
Storage Temp. Range	–55	125	°C

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

+ Transition times are measured between 20% and 80% of V_{DD}.

Packing: Tape & Reel, 1000/3000pcs per Reel.

FREQ. STABILITY vs. TEMP. RANGE

Temp. (°C)	ppm	
	±25	±50
-10 ~ +60	○	○
-20 ~ +70	△	○
-40 ~ +85	×	○

* ○: Available △: Conditional X: Not available

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