

# TU7 Series

## 7.0\*5.0 mm SMD Ultra Low Phase Jitter PECL Crystal Oscillator

### FEATURE

- Typical 7.0 x 5.0 x 1.5 mm 6 pads ceramic SMD package
- Ultra low jitter performance: < 100 fs RMS from 12k-20MHz
- Tight symmetry (45 to 55%) available
- Complementary output

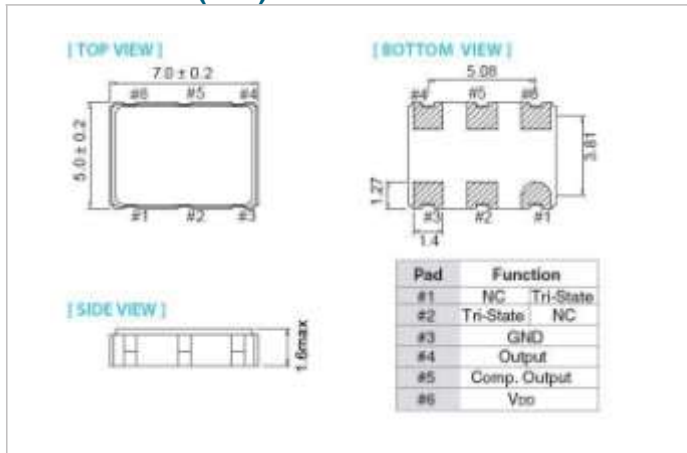
### TYPICAL APPLICATION

- 40G-Bit/100G-Bit Ethernet, MAN, SONET
- WLAN/WiMax, xDSL
- Fiber Channel
- Test Instrumentation

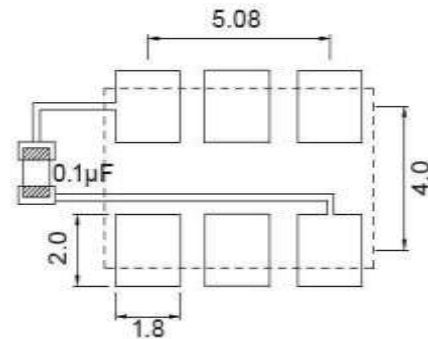


RoHS Compliant Standard

### DIMENSION (mm)



### SOLDER PAD LAYOUT (mm)



### ELECTRICAL SPECIFICATION

Parameter	PECL				Unit
	3.3V		2.5V		
	Min.	Max.	Min.	Max.	
Supply Voltage Variation (VDD) 5%	3.135	3.465	2.375	2.625	V
Frequency Range	70	170	100	160	MHz
Standard Frequency	100,125,155.52,156.25				
Supply Current	-				
70MHz ≤ F0 ≤ 170MHz	-	75	-	75	mA
Output Level					
Output High (Logic "1")	2.275	-	1.475	-	V
Output Low (Logic "0")	-	1.68	-	1.095	
Transition Time: Rise/Fall Time+ Start Time	-	1.0	-	1.0	nSec
	-	3	-	3	mSec
Tri-State (Input to Pin 2 or Pin 1)					
Enable	0.7VDD	-	0.7VDD	-	V
Disable	-	0.3VDD	-	0.3VDD	
RMS Phase Jitter (integrated 12KHz ~ 20MHz)					
70MHz ≤ F0 ≤ 170MHz	-	0.1	-	0.1	pSec
Aging	-	±3	-	±3	ppm
Storage Temp. Range	-55	125	-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 VDD

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

### FREQ. STABILITY vs. TEMP. RANGE

Temp. (°C)	ppm	ppm	
		±25	±50
-10~+60		Δ	O
-20~+70		Δ	O
-40~+85		X	O

\* O: Standard Δ: Available (case by case) X: Not available

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