

# OT-U Type

## 7.0 x 5.0 mm SMD Ultra Low Phase Jitter LVPECL Crystal Oscillator

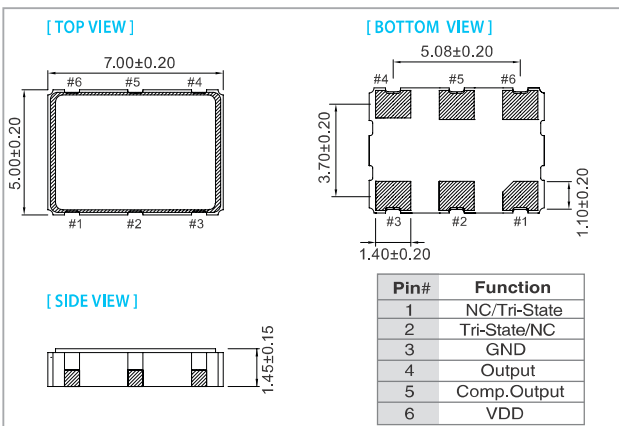
### FEATURE

- Typical 7.0 x 5.0 x 1.45 mm 6 pads ceramic SMD package
- Ultra low jitter performance: < 100 fs RMS from 12k-20MHz
- Tight symmetry (45 to 55%) available
- Complementary output

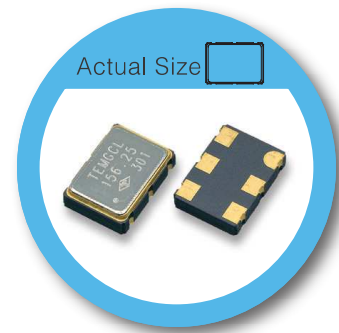
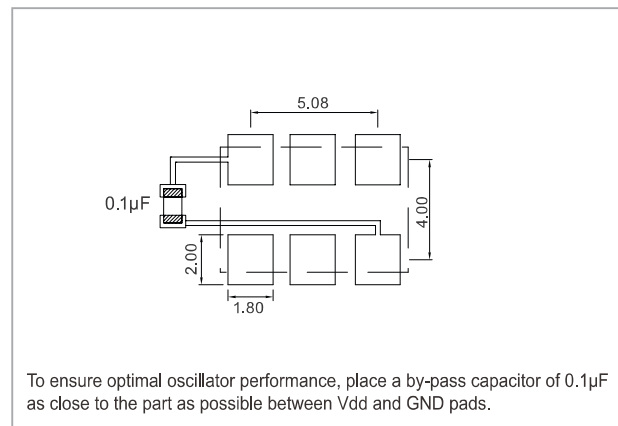
### TYPICAL APPLICATION

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

### DIMENSION (mm)



### SOLDER PAD LAYOUT (mm)



RoHS Compliant

### ELECTRICAL SPECIFICATION

Parameter	LVPECL				unit
	3.3 V		2.5 V		
	Min.	Max.	Min.	Max.	
<b>Supply Voltage Variation (VDD) ±5%</b>	3.135	3.465	2.375	2.625	V
<b>Frequency Range</b>	70	170	100	160	MHz
<b>Standard Frequency</b>	100,125,155.52,156.25				
<b>Supply Current</b>					
100 MHz ≤ Fo < 170 MHz	–	75	–	75	mA
<b>Output Level</b>					
Output High (Logic "1")	2.275	–	1.475	–	V
Output Low (Logic "0")	–	1.68	–	1.095	
<b>Transition Time: Rise/Fall Time+</b>	–	1.0	–	1.0	nSec
<b>Start Time</b>	–	3	–	3	mSec
<b>Tri-State(Input to Pin 2 or Pin 1)</b>					
Enable	2.31	–	1.75	–	V
Disable	–	0.99	–	0.75	
<b>RMS Phase Jitter (Integrated 12 kHz ~ 20 MHz)</b>					
70MHz ≤ Fo ≤ 170MHz	–	0.1	–	0.1	pSec
<b>Phase noise@156.25MHz</b>	100Hz	-100	-100		dBc/Hz
	1KHz	-130	-130		
	10KHz	-150	-150		
<b>Aging</b>	–	±3	–	±3	ppm
<b>Storage Temp. Range</b>	-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.

### 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

**Note: not all combination of options are available. Other specifications may be available upon request.**

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