

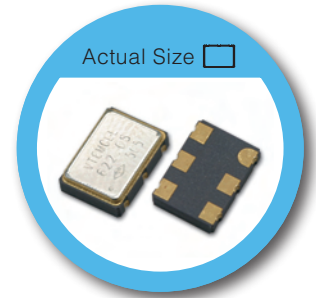
# 7.0x5.0 mm SMD PECL/LVDS Voltage Controlled Crystal Oscillator – VT Type Multiplier

## FEATURE

- Typical 7.0 x 5.0 x 1.6 mm 6 pads ceramic SMD package.
- Tight symmetry (45 to 55%) available.
- Wide frequency control range.
- Complementary output.
- Output frequency up to 700 MHz.
- Packing: Tape & Reel, 1000/3000pcs per Reel.

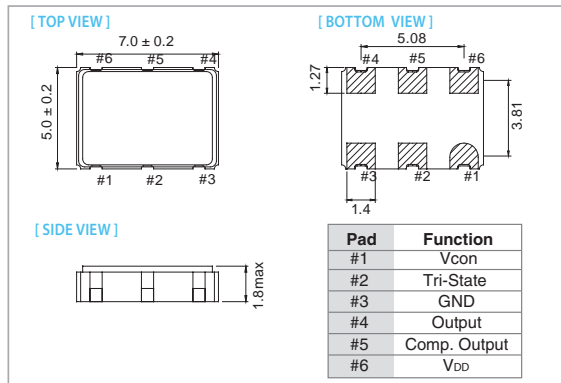
## TYPICAL APPLICATION

- Set-top Box, HDTV
- Wimax/WLAN
- xDSL/ VoIP, Cable modem

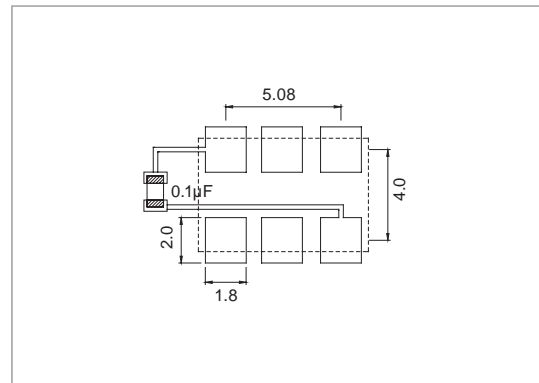


RoHS Compliant Standard

## DIMENSION (mm)



## SOLDER PAD LAYOUT (mm)



## ELECTRICAL SPECIFICATION

Parameter	PECL 3.3 V		LVDS 2.5 V		unit
	Min.	Max.	Min.	Max.	
Supply Voltage Variation (VDD) 5%	2.97	3.63	2.97	3.63	V
Frequency Range	100	700	100	700	MHz
Standard Frequency	122.88, 125, 155.52, 200, 491.52, 622.08				
Absolute Pulling Range (APR)	±50	—	±50	—	ppm
Control Voltage Range	0.3	3.0	0.3	3.0	V
Supply Current	100 MHz ≤ Fo < 160 MHz	—	—	65	
	160 MHz ≤ Fo ≤ 700 MHz	—	—	80	
Output Level	Output High (Logic "1")	—	—	1.6	V
	Output Low (Logic "0")	—	0.9	—	
Transition Time: Rise/Fall Time <sup>+</sup>	—	1.0	—	1.0	nSec
Start Time	—	3	—	3	mSec
Tri-State (input to Pin 2)					
Enable	0.7VDD	—	0.7VDD	—	V
Disable	—	0.3VDD	—	0.3VDD	
Linearity	—	10	—	10	%
Modulation Bandwidth (BW)	25	—	25	—	KHz
Input Impedance	2000	—	2000	—	KΩ
RMS Phase Jitter (Integrated 12 KHz-20 MHz)	—	4	—	4	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.

<sup>+</sup> 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 (1<sup>st</sup> year), shock, and vibration