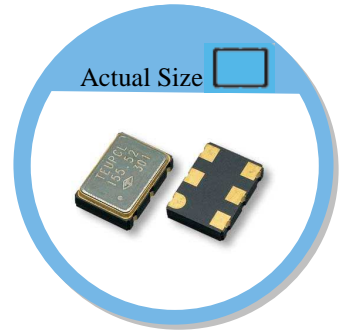


# VT Type

## 7.0 x 5.0 mm SMD PECL/LVDS Voltage Controlled Crystal Oscillator



RoHS Compliant Standard

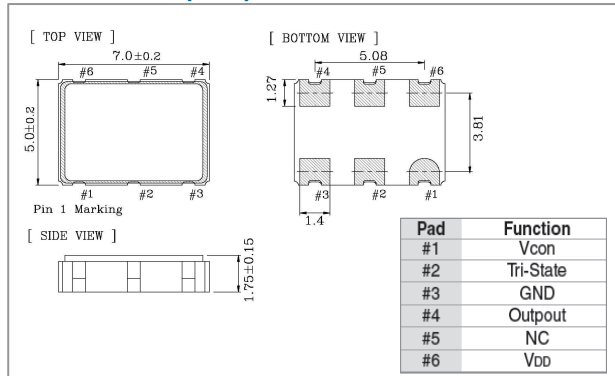
### FEATURE

- Typical 7.0 x 5.0 x 1.6 mm 6pads ceramic SMD package.
- Very low jitter performance: typical 0.3pS RMS from 12k~20MHz.
- Wide frequency control range.
- Complementary Output.
- Tri-state enable/disable

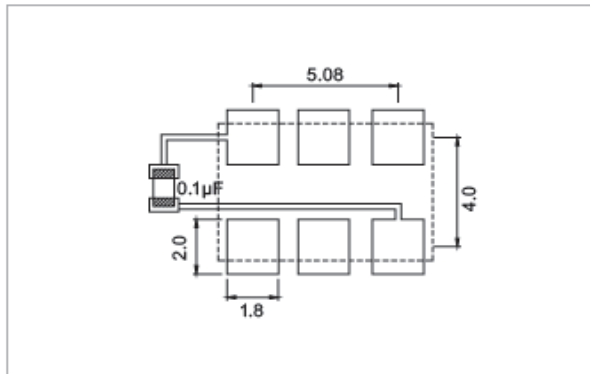
### TYPICAL APPLICATION

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

### DIMENSION (mm)



### SOLDER PAD LAYOUT (mm)



### ELECTRICAL SPECIFICATION

Parameter	PECL				LVDS				Unit
	3.3V		2.5V		3.3V		2.5V		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage Variation (VDD) 5%	3.135	3.465	2.375	2.625	3.135	3.465	2.375	2.625	V
Frequency Range	1.5	200	65	200	1.5	200	65	200	MHz
Standard Frequency	77.76, 106.25, 122.88, 125, 155.52, 156.25, 200								
Absolute Pulling Range (APR)	±50	-	±50	-	±50	-	±50	-	ppm
Control Voltage Range	0.3	3.0	0	2.5	0.3	3.0	0	2.5	V
Supply Current	1.5MHz ≤ F0 < 65 MHz		65MHz ≤ F0 < 200 MHz		1.5MHz ≤ F0 < 65 MHz		65MHz ≤ F0 < 200 MHz		
	-	75	-	75	-	45	-	45	
	-	100	-	100	-	80	-	80	
Output Level	Output High (Logic "1")		Output Low (Logic "0")		Output High (Logic "1")		Output Low (Logic "0")		
	2.275	-	1.475	-	-	1.6	-	1.6	mA
	-	1.68	-	1.095	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)									
Enable (High voltage or floating)	0.7VDD	-	0.7VDD	-	0.7VDD	-	0.7VDD	-	V
Disable (Low voltage or GND)	-	0.3VDD	-	0.3VDD	-	0.3VDD	-	0.3VDD	
Linearity	-	10	-	10	-	10	-	10	%
Modulation Bandwidth (BW)	25	-	25	-1	25	-	25	-	KHz
Input Impedance	50	-	50	-	50	-	50	-	KΩ
RMS Phase Jitter (Integrated 12KHz~20MHz)									
F0 < 100 MHz	-	1	-	1	-	1	-	1	pSec
100 MHz ≤ F0 < 125 MHz	-	0.7	-	0.7	-	0.7	-	0.7	
125 MHz ≤ F0 < 150 MHz	-	0.5	-	0.5	-	0.5	-	0.5	
150 MHz ≤ F0	-	0.3	-	0.3	-	0.3	-	0.3	
Phase Noise 156.25MHz	100Hz		1 KHz		100Hz		10 KHz		
	-	-85	-	-85	-	-85	-	-85	dBc/Hz
	-	-113	-	-113	-	-113	-	-113	
	-	-135	-	-135	-	-135	-	-135	
Aging ( @ 25°C 1st year)	-	±3	-	±3	-	±3	-	±3	ppm
Storage Temp. Range	-55	125	-55	125	-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		△	○
-20~+70		△	○
-40~+85		X	○

\* O: 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