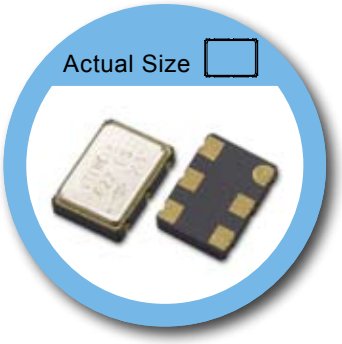
7.0x5.0 mm SMD PECL/LVDS Voltage Controlled Crystal Oscillator– VT Type Multiplier



RoHS Compliant Standard

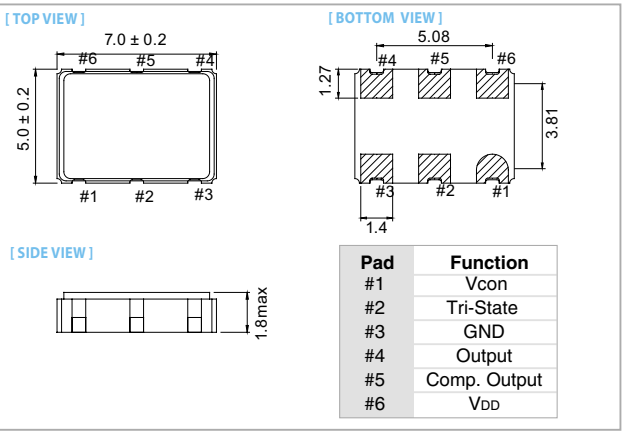
FEATURE

- 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.
- Low phase jitter.
- Complementary output.
- Output frequency up to 700 MHz.
- Packing: Tape & Reel, 1000/3000pcs per Reel.

TYPICAL APPLICATION

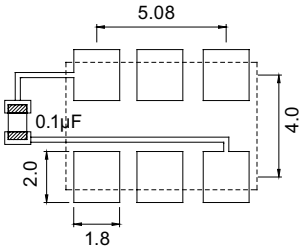
- Set-top Box, HDTV
- Wimax/WLAN
- xDSL/ VoIP, Cable modem

DIMENSION (mm)



Pad	Function
#1	Vcon
#2	Tri-State
#3	GND
#4	Output
#5	Comp. Output
#6	VDD

SOLDER PAD LAYOUT (mm)



ELECTRICAL SPECIFICATION

Parameter	PECL 3.3 V		LVDS 2.5 V		unit
	Min.	Max.	Min.	Max.	
Supply Voltage Variation (VDD) 10%	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	–	75	–	65	mA
160 MHz ≦ Fo ≦ 700 MHz	–	100	–	80	
Output Level					
Output High (Logic "1")	2.275	–	–	1.6	V
Output Low (Logic "0")	–	1.68	0.9	–	
Transition Time: Rise/Fall Time+	–	1.0	–	1.0	nSec
Start Time	–	3	–	3	mSec
Tri-State (input to Pin 2)					
Output Active	0.75 VDD	–	0.75 VDD	–	V
Output in High Impedance State	–	0.15 VDD	–	0.15 VDD	
Linearity	–	10	–	10	%
Modulation Bandwidth (BW)	25	–	25	–	KHz
Input Impedance	50	–	50	–	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.
+ Transition times are measured between 10% and 90% of VDD, with an output load of 15pF.

FREQ. STABILITY vs. TEMP. RANGE

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

* ○:Standard △:Available (case by case) ×:Not available
* Inclusive of calibration @ 25 °C, operating temperature range, input voltage variation, load variation, aging (1st year), shock, and vibration