

Series PL4
14.2x9.3 mm SMD PECL/LVDS Voltage Controlled Crystal Oscillator

FEATURE

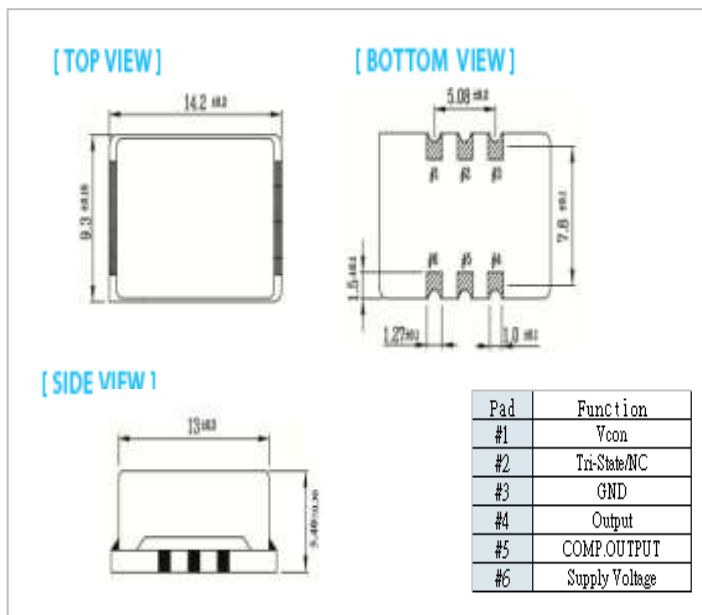
- Typical 14.2x9.3x5.5mm 6 pads ceramic SMD package.
- Tight symmetry (45 to 55%) available
- Wide frequency control range.
- Low phase jitter (Max: 0.5 pSec).
- Complementary Output.
- Packing: Tape & Reel, 500pcs per Reel.



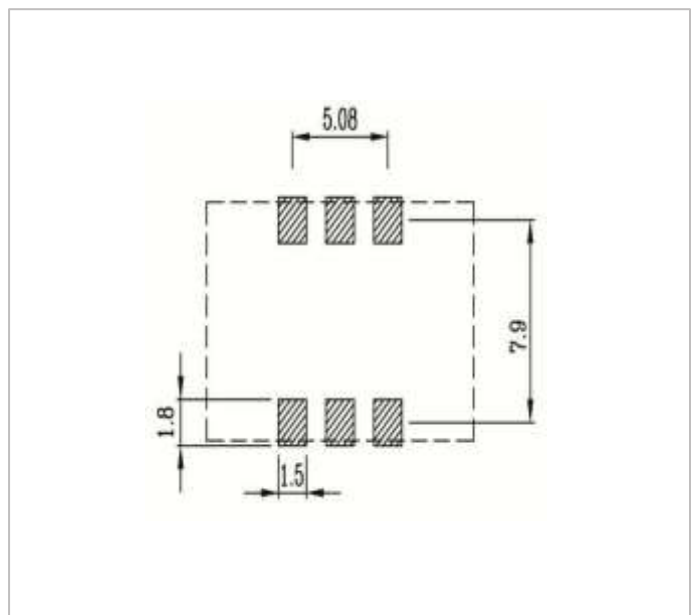
TYPICAL APPLICATION

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

DIMENSION



SOLDER PAD LAYOUT (mm)



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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	2.5	0.3	3	0	2.5	V
Supply Current 1.5MHz ≤ F0 < 65MHz	-	75	-	75	-	45	-	45	mA
65MHz ≤ F0 ≤ 200MHz	-	100	-	100	-	80	-	80	
Output Level Output High (Logic "1")	2.275		1.475		-	1.6	-	1.6	V
Output Low (Logic "0")	-	1.68	-	1.095	0.9		0.9	-	
Transition Time: Rise/Fall Time	-	1.0	-	1.0	-	1.0	-	1	nSec
Start Time	-	3.0	-	3.0	-	3.0	-	3	mSec
Tri-State (input to Pin 2, Enable Low)									
Enable (Low voltage or GND or floating)	-	0.3VDD	-	0.3VDD	-	0.3VDD	-	0.3VDD	V
Disable (Low voltage or GND)	0.7VDD	-	0.7VDD	-	0.7VDD	-	0.7VDD	-	
Linearity		10		10		10	-	10	%
Modulation Bandwidth (BW)	25	-	25	-	25	-	25	-	KHz
Inut Impedance	50	-	50	-	50	-	50	-	KΩ

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RMS Phase Jitter(Integrated 12KHz~20MHz)									
F0 < 100MHz	-	1	-	1	-	1	-	1	pSec
100MHz ≅ F0 < 125MHz	-	0.7	-	0.7	-	0.7	-	0.7	
125MHz ≅ F0 < 150MHz	-	0.5	-	0.5	-	0.5	-	0.5	
150MHz ≅ F0	-	0.3	-	0.3	-	0.3	-	0.3	
Phase Noise @155.52MHz 100 Hz	-	-80	-	-80	-	-80	-	-80	dBc/Hz
1 KHz	-	-110	-	-110	-	-110	-	-110	
10 KHz	-	-130	-	-130	-	-130	-	-130	
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, 500pcs per Reel.

FREQ. STABILITY vs TEMP. RANGR

Tem.(°C) \ ppb	±25	±50
-10 ~+60	Δ	O
-20 ~+70	Δ	O
-40 ~+85	×	O

O: Available Δ:Conditional X: Not available

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