

# VCTCXO

## PC145B Series

### PECL/LVDS

### 6PAD SMD PACKAGE

#### \* PART NUMBERING GUIDE

<b>PC145BH - 5 P 10 3 D 5 E - 20.000M</b>						
PC145B : without Trimmer	↑	↑	↑	↑	↑	Frequency M : MHz
PC145BH : with Trimmer						
Supply Voltage 5 : 5.0V 3 : 3.3V						E : 2PIN E/D Blank : 2PIN NC
Output P : PECL L : LVDS						Pulling Range 5 : ± 5 ppm min 10 : ±10 ppm min
Stability vs. Temperature See Table1						Temperature Range Table2

MECHANICAL DIMENSIONS	ELECTRICAL SPECIFICATION																																															
<p>PIN CONNECTION</p> <ul style="list-style-type: none"> <li>#1 V.C</li> <li>#2 NC or E/D</li> <li>#3 GND</li> <li>#4 OUTPUT</li> <li>#5 COMP.OUTPUT</li> <li>#6 Vcc</li> </ul> <p>Recommended Soldering Pattern</p>	Frequency range	8.00MHz to 1500.000MHz (All combinations for Frequency in the range and temp. stability can't be available, please contact factory.)																																														
	Frequency Stability vs. Temperature vs. Supply Voltage vs. Load vs. Aging	±0.5 ppm to ±5.0ppm ±0.1 / ±0.3 ppm max / Vdd ± 5% ±0.2 ppm max /15pF ±10% ±1.0 ppm max/ year																																														
	Temperature Range Operating Storage	See Table 2 -55°C to 125°C																																														
	Supply Voltage	3.3V ± 5% 5.0V ± 5%																																														
	Input Current 3.3 V , 5V	8.000MHz ~ 1500.000MHz 60mA max ~ 100mA max																																														
	Output characteristics	<table border="1"> <thead> <tr> <th></th> <th>pecl</th> <th>lvds</th> </tr> </thead> <tbody> <tr> <td>Voh Logic "1"</td> <td>Vdd-1.025v min.</td> <td>1.43v typ.</td> </tr> <tr> <td>Vol Logic "0"</td> <td>Vdd-1.620v max.</td> <td>1.10v typ.</td> </tr> <tr> <td>Rise Time Tr</td> <td>1.0 nsec max.</td> <td>1.0 nsec max.</td> </tr> <tr> <td>Fall Time Tf</td> <td>1.0 nsec min.</td> <td>1.0 nsec min.</td> </tr> <tr> <td>Duty Cycle</td> <td>50//50 ± 5%</td> <td>50//50 ± 5%</td> </tr> <tr> <td>Differential Output Vod(Lvds)</td> <td></td> <td>330mV typ.</td> </tr> <tr> <td>Offset Voltage Vos(Lvds)</td> <td></td> <td>1.2V typ.</td> </tr> </tbody> </table>		pecl	lvds	Voh Logic "1"	Vdd-1.025v min.	1.43v typ.	Vol Logic "0"	Vdd-1.620v max.	1.10v typ.	Rise Time Tr	1.0 nsec max.	1.0 nsec max.	Fall Time Tf	1.0 nsec min.	1.0 nsec min.	Duty Cycle	50//50 ± 5%	50//50 ± 5%	Differential Output Vod(Lvds)		330mV typ.	Offset Voltage Vos(Lvds)		1.2V typ.																						
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	Phase Noise (typical) 20MHz offset	-80 dBc / Hz @ 10Hz -120 dBc / Hz @ 100Hz -135 dBc / Hz @ 1KHz -140 dBc / Hz @ 10KHz -145 dBc / Hz @100KHz																																														
	Frequency Adjustment	±3ppm min by internal trimmer (OPTION)																																														
	Voltage Control Characteristics																																															
	Output Pulling Range (ΔF/ΔV)	±5.0ppm or ±10ppm min (ΔF/ΔV >±20ppm is available, please contact us)																																														
	Control Voltage Range	1.65V ± 1.5V ( Vdd : 3.3V ), 2.5V ± 2.0V ( Vdd : 5.0V )																																														
	<b>ENVIROMENTAL &amp; MECHANICAL SPECIFICATION</b>																																															
	Shock	MIL-STD-883C, Method 2002, Condition B																																														
	Vibration	MIL-STD-883C, Method 2007, Condition A																																														
	Solderability	MIL-STD-883C, Method 2003																																														
	Seal integrity	MIL-STD-883C, Method 1014, Condition C & A2																																														
	Marking	MIL-STD-202F, Method 215																																														
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