

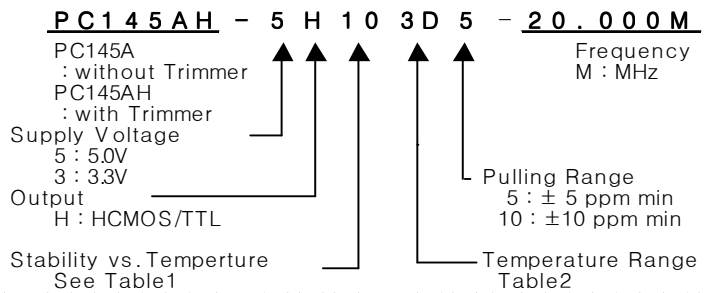
VCTCXO

PC145A Series

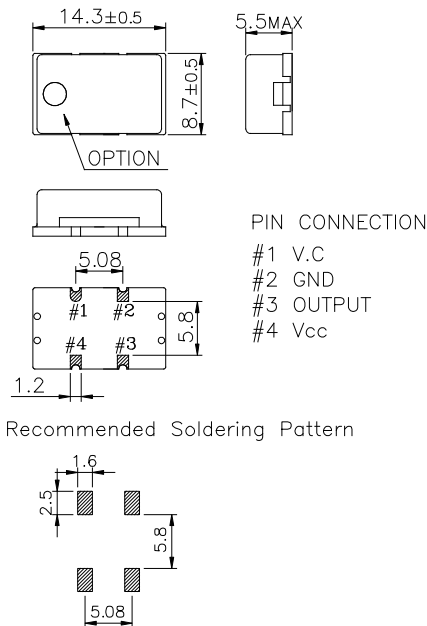
HCMOS/TTL

4PAD SMD PACKAGE

* PART NUMBERING GUIDE



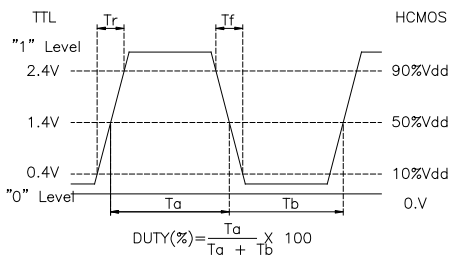
MECHANICAL DIMENSIONS



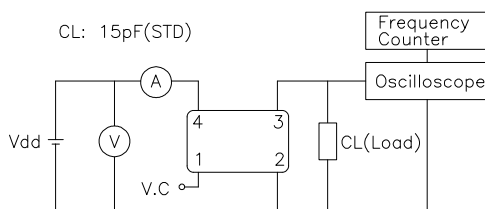
ELECTRICAL SPECIFICATION

Frequency range	1.000KHz to 800.000MHz All combination of Frequency range Vs. Package type might not be available ,please contact factory.																		
Frequency Stability vs. Temperature vs. Supply Voltage vs. Load vs. Aging	± 0.5 ppm to ± 5.0 ppm $\pm 0.1 / \pm 0.3$ ppm max / $V_{dd} \pm 5\%$ ± 0.2 ppm max / $15\text{pF} \pm 10\%$ ± 1.0 ppm max/ year																		
Temperature Range Operating Storage	See Table 2 -55°C to 125°C																		
Supply Voltage	$3.3\text{V} \pm 5\%$ $5.0\text{V} \pm 5\%$																		
Input Current 3.3 V , 5V	1.000KHz ~ 40.000MHz ~ 800.000MHz 15mA max ~ 30mA max ~ 100mA max																		
Output characteristics	<table border="1"> <thead> <tr> <th></th> <th>HCMOS</th> <th>TTL</th> </tr> </thead> <tbody> <tr> <td>Logic "1"</td> <td>90% Vdd min</td> <td>2.4V min</td> </tr> <tr> <td>Logic "1"</td> <td>10% Vdd max</td> <td>0.4V min</td> </tr> <tr> <td>Load</td> <td>15pF</td> <td>10TTL</td> </tr> <tr> <td>Duty Cycle</td> <td>40/60</td> <td>40/60</td> </tr> <tr> <td>Rise & Fall</td> <td>10nS max</td> <td>10nS max</td> </tr> </tbody> </table>		HCMOS	TTL	Logic "1"	90% Vdd min	2.4V min	Logic "1"	10% Vdd max	0.4V min	Load	15pF	10TTL	Duty Cycle	40/60	40/60	Rise & Fall	10nS max	10nS max
	HCMOS	TTL																	
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Duty Cycle	40/60	40/60																	
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Phase Noise (typical) 20MHz offset	<ul style="list-style-type: none"> -80 dBc / Hz @ 10Hz -120 dBc / Hz @ 100Hz -135 dBc / Hz @ 1KHz -140 dBc / Hz @ 10KHz -145 dBc / Hz @ 100KHz 																		
Frequency Adjustment	$\pm 3\text{ppm}$ min by internal trimmer (OPTION)																		
Voltage Control Characteristics																			
Output Pulling Range ($\Delta F / \Delta V$)	$\pm 5.0\text{ppm}$ or $\pm 10\text{ppm}$ min ($\Delta F / \Delta V > \pm 20\text{ppm}$ is available, please contact us)																		
Control Voltage Range	$1.65\text{V} \pm 1.5\text{V}$ ($V_{dd} : 3.3\text{V}$), $2.5\text{V} \pm 2.0\text{V}$ ($V_{dd} : 5.0\text{V}$)																		

OUTPUT WAVEFORM



TEST CIRCUIT



ENVIROMENTAL & MECHANICAL SPECIFICATION

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

TABLE1

Symbol	Stability
05	$\pm 0.5\text{ppm}$
10	$\pm 1.0\text{ppm}$
15	$\pm 1.5\text{ppm}$
20	$\pm 2.0\text{ppm}$
25	$\pm 2.5\text{ppm}$
30	$\pm 3.0\text{ppm}$
35	$\pm 3.5\text{ppm}$
50	$\pm 5.0\text{ppm}$

TABLE2

Symbol	Temp.	Symbol	Temp.
0	0°C	A	50°C
1	-10°C	B	60°C
2	-20°C	C	70°C
3	-30°C	D	75°C
4	-40°C	E	80°C
		F	85°C