

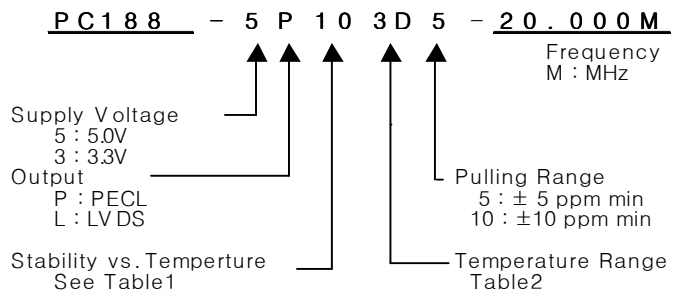
VCTCXO

PC188 Series

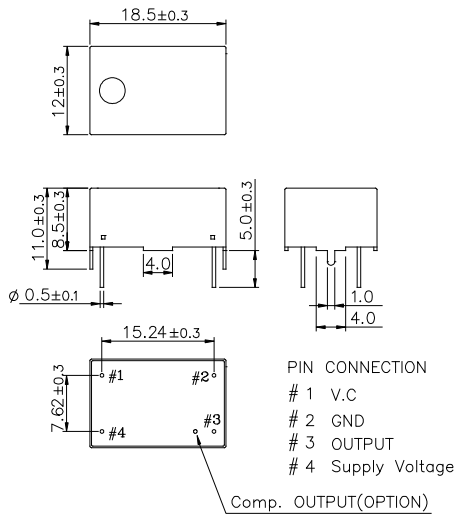
PECL/LVDS

14PIN DIP PACKAGE

* PART NUMBERING GUIDE



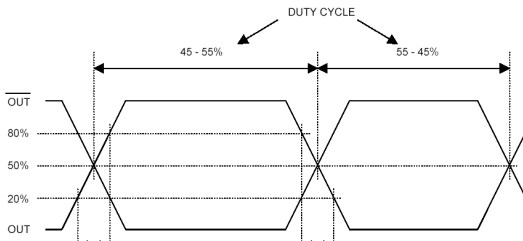
MECHANICAL DIMENSIONS



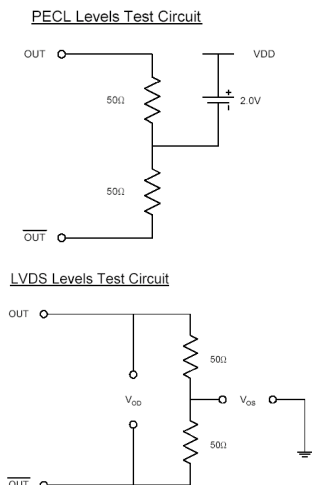
ELECTRICAL SPECIFICATION

Frequency range	0.75MHz 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 / $15pF \pm 10\%$ ± 1.0 ppm max/ year	
Temperature Range Operating Storage	See Table 2 $-55^{\circ}C$ to $125^{\circ}C$	
Supply Voltage	$3.3V \pm 5\%$ $5.0V \pm 5\%$	
Input Current $3.3V, 5V$	24.000MHz ~ 800.000MHz 25mA max ~ 100mA max	
Output characteristics	pecl	lvds
Voh Logic "1"	$V_{dd}-1.025v$ min.	1.43v typ.
Vol Logic "0"	$V_{dd}-1.620v$ max.	1.10v typ.
Rise Time T_r	1.0 nsec max.	1.0 nsec max.
Fall Time T_f	1.0 nsec min.	1.0 nsec min.
Duty Cycle	50//50 $\pm 5\%$	50//50 $\pm 5\%$
Differential Output	$V_{od}(Lvds)$	330mV typ.
Offset Voltage	$V_{os}(Lvds)$	1.2V typ.
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	$\pm 3ppm$ min by internal trimmer	
Voltage Control Characteristics		
Output Pulling Range ($\Delta F / \Delta V$)	$\pm 5.0ppm$ or $\pm 10ppm$ min ($\Delta F / \Delta V > \pm 20ppm$ is available, please contact us)	
Control Voltage Range	$1.65V \pm 1.5V$ ($V_{dd} : 3.3V$), $2.5V \pm 2.0V$ ($V_{dd} : 5.0V$)	

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	$\pm 0.5ppm$
10	$\pm 1.0ppm$
15	$\pm 1.5ppm$
20	$\pm 2.0ppm$
25	$\pm 2.5ppm$
30	$\pm 3.0ppm$
35	$\pm 3.5ppm$
50	$\pm 5.0ppm$

TABLE2

Symbol	Temp.	Symbol	Temp.
0	$0^{\circ}C$	A	$50^{\circ}C$
1	$-10^{\circ}C$	B	$60^{\circ}C$
2	$-20^{\circ}C$	C	$70^{\circ}C$
3	$-30^{\circ}C$	D	$75^{\circ}C$
4	$-40^{\circ}C$	E	$80^{\circ}C$
		F	$85^{\circ}C$