

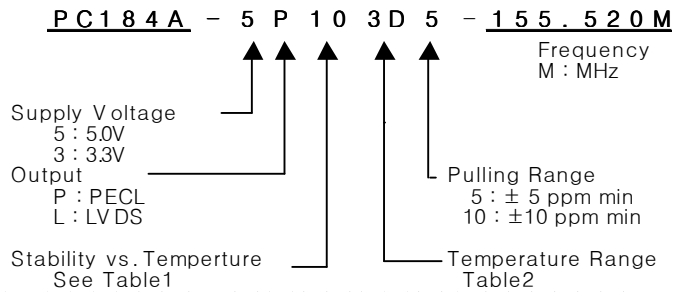
# VCTCXO

## PC184A Series

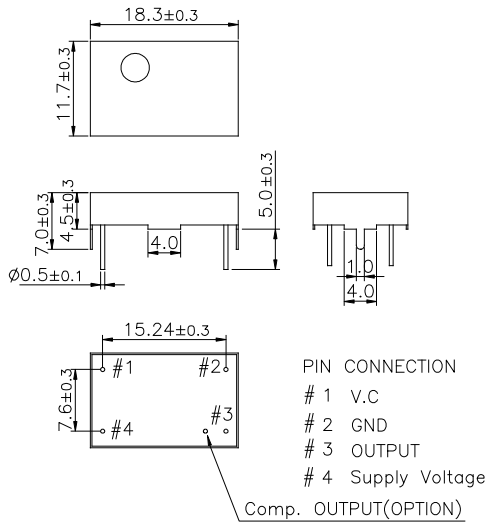
### PECL/LVDS

### 14PIN DIP PACKAGE

#### \* PART NUMBERING GUIDE



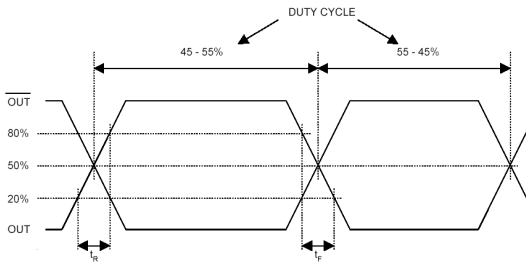
#### MECHANICAL DIMENSIONS



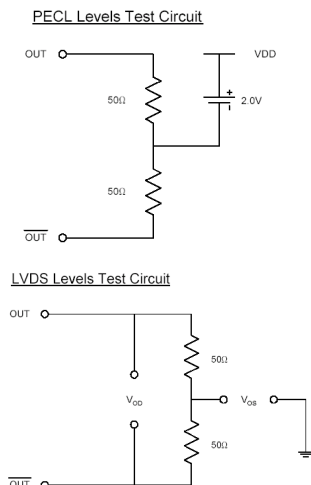
#### ELECTRICAL SPECIFICATION

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	$\pm 0.5$ ppm to $\pm 5.0$ ppm $\pm 0.1 / \pm 0.3$ ppm max / Vdd $\pm 5\%$ $\pm 0.2$ ppm max /15pF $\pm 10\%$ $\pm 1.0$ 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 3.3 V , 5V	24.000MHz ~ 800.000MHz 25mA max ~ 100mA max	
Output characteristics	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 $\pm 5\%$	50//50 $\pm 5\%$
Differential Output	Vod(Lvds)	330mV typ.
Offset Voltage	Vos(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	$\pm 3$ ppm min by internal trimmer	
Voltage Control Characteristics		
Output Pulling Range ( $\Delta F / \Delta V$ )	$\pm 5.0$ ppm or $\pm 10$ ppm min ( $\Delta F / \Delta V > \pm 20$ ppm is available, please contact us)	
Control Voltage Range	1.65V $\pm 1.5$ V ( Vdd : 3.3V ), 2.5V $\pm 2.0$ V ( Vdd : 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	$\pm 0.5$ ppm
10	$\pm 1.0$ ppm
15	$\pm 1.5$ ppm
20	$\pm 2.0$ ppm
25	$\pm 2.5$ ppm
30	$\pm 3.0$ ppm
35	$\pm 3.5$ ppm
50	$\pm 5.0$ ppm

#### 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