

# TCXO

PT205M/PT207M Series  
PECL/LVDS  
14PIN DIP PACKAGE

## \* PART NUMBERING GUIDE

**PT 207 M H - 5 P 10 3 D C - 10 . 000 M**

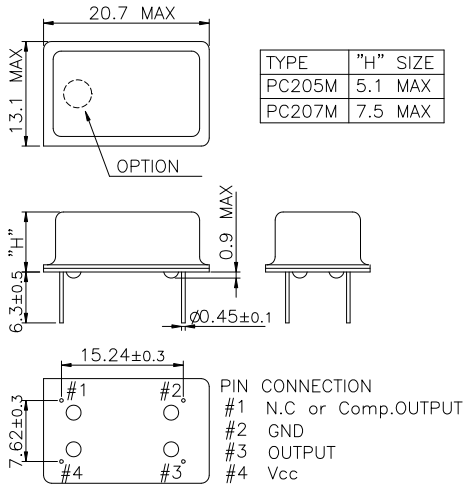
PT207M (Hermetic)  
PT207MH(Internal Trim)  
PT205M (Hermetic)  
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Supply Voltage  
5 : 5.0V  
3 : 3.3V  
Output  
P : PECL  
L : LVDS  
Stability vs. Temperature  
See Table1

Frequency  
M : MHz

C : 1PIN Comp.OUTPUT  
Blank : 1PIN N.C

Temperature Range  
Table2

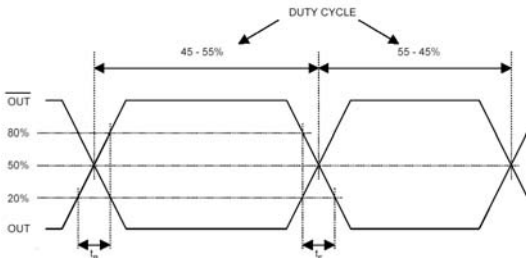
### MECHANICAL DIMENSIONS



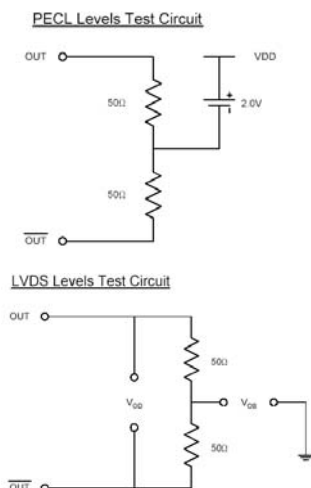
### ELECTRICAL SPECIFICATION

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</td> <td>Vod(Lvds)</td> <td>330mV typ.</td> </tr> <tr> <td>Offset Voltage</td> <td>Vos(Lvds)</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	-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) PT207MH / PT205MH available																								

### 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	±0.5ppm
10	±1.0ppm
15	±1.5ppm
20	±2.0ppm
25	±2.5ppm
30	±3.0ppm
35	±3.5ppm
50	±5.0ppm

#### 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