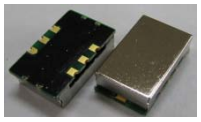
(VC)TCXO
PHX Series



Sinewave/LVPECL/LVDS Output
14*9*6mm

Analog Multiple Design
(3rd. Overtone x-tal used)

* PART NUMBERING GUIDE

P H X 1 4 6 B - 5 S 1 0 4 D 1 - 4 0 0 . 0 0 0 M

X => T : TCXO
X => C : VCTCXO

Supply Voltage
5 : 5.0V
3 : 3.3V

Output
S : Sinewave
P : LVPECL
L : LVDS

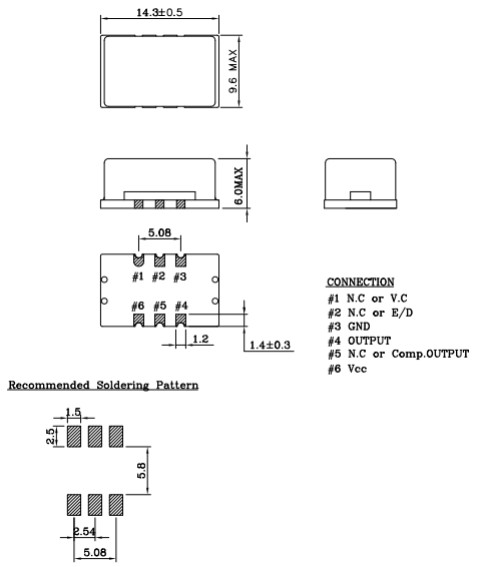
Stability vs. Temperture
See Table1

TCXO : Blank
VCTCXO
1 : ±1.0ppm min.
5 : ±5.0ppm min.
10 : ±10.0pp min.

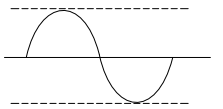
Temperature Range
Table2

Frequency
M : MHz

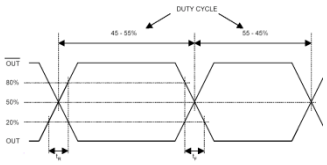
MECHANICAL DIMENSIONS



OUTPUT WAVEFORM

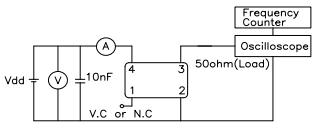


Sinewave

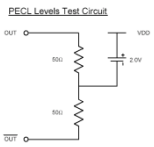


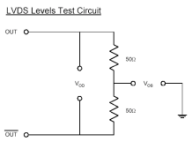
LVPECL/LVDS

TEST CIRCUIT



Sinewave





ELECTRICAL SPECIFICATION

Frequency range	200.000MHz ~ 1000.000MHz (STD. FREQ. : 204.800MHz, 211.3536MHz, 250.000MHz, 300.000MHz, 350.000MHz, 400.000MHz, 500.000MHz, 534.000MHz, 600.000MHz)
Frequency Stability vs. Tolerance vs. Temperature vs. Supply Voltage vs. Load vs. Aging	 ±1.0 ppm at 25deg ±0.5 ppm to ±2.0ppm ±0.1 / ±0.2 ppm max / Vdd ± 5% ±0.2 ppm max /50oHms±10% ±1.0 ppm max/ year
Temperature Range Operating Storage	 See Table 2 -55℃ to 125℃
Supply Voltage	3.3V ± 5% 5.0V ± 5% (Sinewave only)
Input Current	200.000MHz ~ 1000.000MHz 40.0mA max ~ 100.0mA max
Output characteristics	Level / Load Sinewave: 0dBm min.@3.3V, 5dBm min.@5.0V / 50Ω LVPECL Voh Logic "1" Vdd-1.025v min. / 50Ω Vol Logic "0" Vdd-1.620v max. LVDS / 100Ω Voh Logic "1" 1.43v typ. Vol Logic "0" 1.10v typ.
Phase Noise (typical) @400.000MHz	-70 dBc / Hz@10Hz, -100 dBc / Hz@100Hz -125 dBc / Hz@1KHz, -140 dBc / Hz@10KHz -150 dBc / Hz @100KHz

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

TABLE2

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