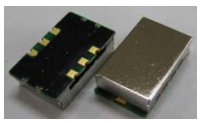
(VC)TCXO
PSFX146B Series



HCMOS/Sinewave/LVPECL/LVDS

Temperature stability ±0.1ppm available

Ultra low Phase noise

14*9*6mm / 6PADs

Ver. 1.2

* PART NUMBERING GUIDE

P S F - 1 4 6 B - 3 S 0 1 4 D 1 - 1 0 0 . 0 0 0 M

PSFT => TCXO
PSFC => VCTCXO

Supply Voltage
- 5 : 5.0V
- 3 : 3.3V

Output
- H : HCMOS
- S : Sinewave
- P : LVPECL
- L : LVDS

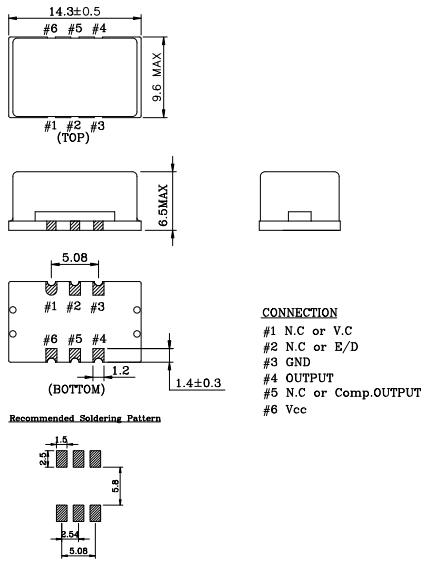
Stability vs. Temperture
- See Table1

Temperature Range
- Table2

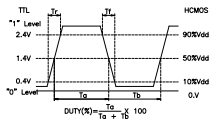
TCXO : Blank
VCTCXO
- 1 : ±1.0ppm min.
- 5 : ±5.0ppm min.
- 10 : ±10.0ppm min.

Frequency
- M : MHz

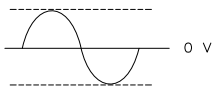
MECHANICAL DIMENSIONS



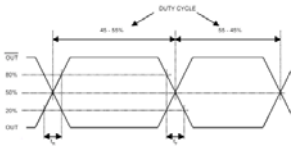
OUTPUT WAVEFORM



HCMOS

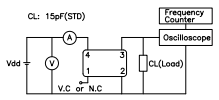


Sinewave

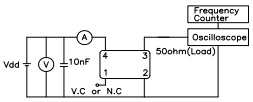


LVPECL/LVDS

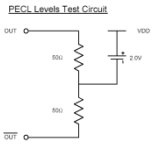
TEST CIRCUIT

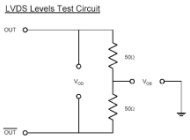


HCMOS



Sinewave





ELECTRICAL SPECIFICATION

Frequency range	~ 200.000MHz
Frequency Stability vs. Tolerance vs. Temperature vs. Supply Voltage vs. Load vs. Aging	 ±0.5 ppm at 25deg ±0.1 ppm to ±0.5ppm ±0.1 ppm max / Vdd ± 5% ±0.1 ppm max /50oHms±5% ±0.5 ppm max/ year , ±3.0ppm max./20years
Temperature Range Operating Storage	 See Table 2 -55℃ to 125℃
Supply Voltage	3.3V ± 5% / 5.0V ± 5%
Input Current	~ 200.000MHz : 60.0mA max
Output characteristics	Level / Load HCMOS: Voh : 0.9Vdd min. / Vol : 0.1Vdd max. / 15pF Sinewave: +5dBm min.@3.3V / +10dBm min.@5.0V / 50Ω LVPECL: Voh Logic "1" Vdd-1.025v min. / Vol Logic "0" Vdd-1.620v max. / 50Ω LVDS: Voh Logic "1" 1.43v typ. / Vol Logic "0" 1.10v typ. / 100Ω Duty Cycle 45/55%(Sinewave not applicable)
Pulling Range Control Range	±1.0ppm min. ~ ±10.0 ppm min 1.65V ± 1.5V (Vdd: 3.3V) / 2.5V ± 2.5V (Vdd: 5.0V)
Phase Noise (typical) @100.000MHz (Sinewave & HCMOS)	-85dBc/Hz@10Hz(VCTCXO), -90dBc/Hz@10Hz(TCXO), -125dBc/Hz@100Hz, -150dBc/Hz@1KHz, -170dBc/Hz@10KHz, -165dBc/Hz@10KHz(at 3.3V) -175dBc/Hz@100KHz,-170dBc/Hz@100KHz(at 3.3V) Noise floor -176dBc/Hz

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
01	±0.1ppm
02	±0.2ppm
03	±0.3ppm
04	±0.4ppm
05	±0.5ppm

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℃