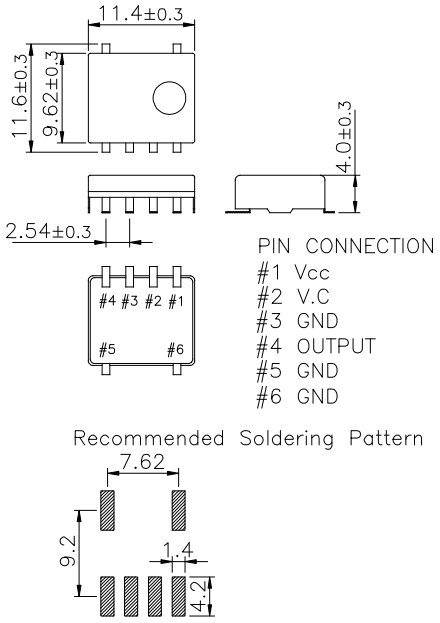
VCTCXO
PC114 Series
HCMOS/TTL
6PAD SMD PACKAGE

* PART NUMBERING GUIDE

PC114 - 3 H 10 3D 5 - 20.000M

- Frequency: M : MHz
- Supply Voltage: 5 : 5.0V, 3 : 3.3V
- Output: H : HCMOS/TTL
- Stability vs. Temperture: See Table1
- Temperature Range: Table2
- Pulling Range: 5 : ± 5 ppm min, 10 : ±10 ppm min

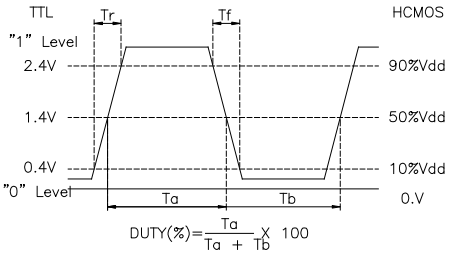
MECHANICAL DIMENSIONS



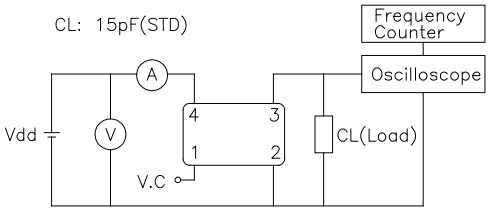
PIN CONNECTION
#1 Vcc
#2 V.C
#3 GND
#4 OUTPUT
#5 GND
#6 GND

Recommended Soldering Pattern

OUTPUT WAVEFORM



TEST CIRCUIT



ELECTRICAL SPECIFICATION

Frequency range	1.250MHz to 50.000MHz
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℃ to 125℃
Supply Voltage	3.3V ± 5% 5.0V ± 5%
Input Current 3.3 V , 5V	1.250MHz ~ 50.000MHz 15mA max ~ 40mA max
Output characteristics	HCMOS / TTL Logic "1" 90% Vdd min / 2.4V min Logic "1" 10% Vdd max / 0.4V min Load 15pF / 10TTL Duty Cycle 40/60 / 40/60 Rise & Fall 10nS max / 10nS max
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	±3ppm min by internal trimmer
Voltage Control Characteristics	
Output Pulling Range (△F/△V) Control Voltage Range	±5.0ppm or ±10ppm min (△F/△V >±20ppm is available, please contact us) 1.65V ± 1.5V (Vdd : 3.3V), 2.5V ± 2.0V (Vdd : 5.0V)

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

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