

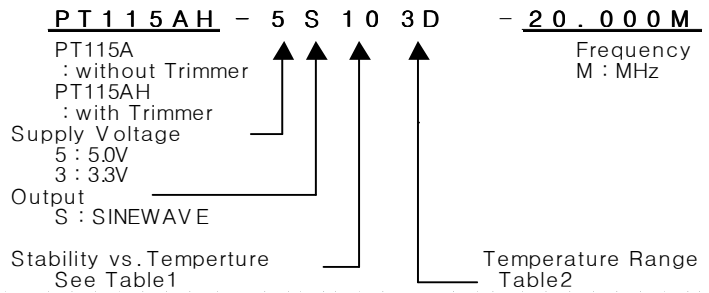
TCXO

PT115A Series

Sinewave

4PAD SMD PACKAGE

* PART NUMBERING GUIDE



MECHANICAL DIMENSIONS	ELECTRICAL SPECIFICATION																																								
<p>PIN CONNECTION</p> <p>#1 N.C #2 GND #3 OUTPUT #4 Vcc</p> <p>Recommended Soldering Pattern</p>	<table border="1"> <tr> <td>Frequency range</td> <td>10.000MHz to 50.000MHz</td> </tr> <tr> <td>Frequency Stability vs. Temperature vs. Supply Voltage vs. Load vs. Aging</td> <td>±0.5 ppm to ±5.0ppm ±0.1 / ±0.2 ppm max / Vdd ± 5% ±0.2 ppm max /15pF ±10% ±1.0 ppm max/ year</td> </tr> <tr> <td>Temperature Range Operating Storage</td> <td>See Table 2 -55°C to 125°C</td> </tr> <tr> <td>Supply Voltage</td> <td>3.3V ± 5% 5.0V ± 5%</td> </tr> <tr> <td>Input Current Sinewave</td> <td>10.00MHz ~ 50.000MHz 12.0mA max ~ 20mA max</td> </tr> <tr> <td>Output characteristics</td> <td>Sinewave Level 3.3V 0 dBm typ 5.0V 10 dBm typ Load 50Ω</td> </tr> <tr> <td>Phase Noise (typical) 20MHz offset</td> <td>-80 dBc / Hz @ 10Hz -120 dBc / Hz @ 100Hz -135 dBc / Hz @ 1KHz -140 dBc / Hz @ 10KHz -145 dBc / Hz @100KHz</td> </tr> <tr> <td>Frequency Adjustment</td> <td>±3ppm min by internal trimmer (OPTION)</td> </tr> </table>	Frequency range	10.000MHz to 50.000MHz	Frequency Stability vs. Temperature vs. Supply Voltage vs. Load vs. Aging	±0.5 ppm to ±5.0ppm ±0.1 / ±0.2 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 Sinewave	10.00MHz ~ 50.000MHz 12.0mA max ~ 20mA max	Output characteristics	Sinewave Level 3.3V 0 dBm typ 5.0V 10 dBm typ Load 50Ω	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 (OPTION)																								
Frequency range	10.000MHz to 50.000MHz																																								
Frequency Stability vs. Temperature vs. Supply Voltage vs. Load vs. Aging	±0.5 ppm to ±5.0ppm ±0.1 / ±0.2 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 Sinewave	10.00MHz ~ 50.000MHz 12.0mA max ~ 20mA max																																								
Output characteristics	Sinewave Level 3.3V 0 dBm typ 5.0V 10 dBm typ Load 50Ω																																								
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 (OPTION)																																								
<h4>OUTPUT WAVEFORM</h4>	<h4>ENVIROMENTAL & MECHANICAL SPECIFICATION</h4> <table border="1"> <tr> <td>Shock</td> <td>MIL-STD-883C, Method 2002, Condition B</td> </tr> <tr> <td>Vibration</td> <td>MIL-STD-883C, Method 2007, Condition A</td> </tr> <tr> <td>Solderability</td> <td>MIL-STD-883C, Method 2003</td> </tr> <tr> <td>Seal integrity</td> <td>MIL-STD-883C, Method 1014, Condition C & A2</td> </tr> <tr> <td>Marking</td> <td>MIL-STD-202F, Method 215</td> </tr> </table>	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																														
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																																								
<h4>TEST CIRCUIT</h4>	<table border="1"> <thead> <tr> <th colspan="2">TABLE1</th> <th colspan="2">TABLE2</th> </tr> <tr> <th>Symbol</th> <th>Stability</th> <th>Symbol</th> <th>Temp.</th> </tr> </thead> <tbody> <tr> <td>05</td> <td>±0.5ppm</td> <td>0</td> <td>0°C</td> </tr> <tr> <td>10</td> <td>±1.0ppm</td> <td>A</td> <td>50°C</td> </tr> <tr> <td>15</td> <td>±1.5ppm</td> <td>1</td> <td>-10°C</td> </tr> <tr> <td>20</td> <td>±2.0ppm</td> <td>2</td> <td>-20°C</td> </tr> <tr> <td>25</td> <td>±2.5ppm</td> <td>3</td> <td>-30°C</td> </tr> <tr> <td>30</td> <td>±3.0ppm</td> <td>4</td> <td>-40°C</td> </tr> <tr> <td>35</td> <td>±3.5ppm</td> <td></td> <td></td> </tr> <tr> <td>50</td> <td>±5.0ppm</td> <td>F</td> <td>85°C</td> </tr> </tbody> </table>	TABLE1		TABLE2		Symbol	Stability	Symbol	Temp.	05	±0.5ppm	0	0°C	10	±1.0ppm	A	50°C	15	±1.5ppm	1	-10°C	20	±2.0ppm	2	-20°C	25	±2.5ppm	3	-30°C	30	±3.0ppm	4	-40°C	35	±3.5ppm			50	±5.0ppm	F	85°C
TABLE1		TABLE2																																							
Symbol	Stability	Symbol	Temp.																																						
05	±0.5ppm	0	0°C																																						
10	±1.0ppm	A	50°C																																						
15	±1.5ppm	1	-10°C																																						
20	±2.0ppm	2	-20°C																																						
25	±2.5ppm	3	-30°C																																						
30	±3.0ppm	4	-40°C																																						
35	±3.5ppm																																								
50	±5.0ppm	F	85°C																																						