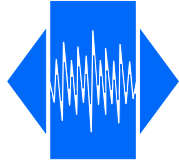


# VTX 7T-STR3

**STRATUM-III**, high reliable,  
Temperature compensated (VC)TCXO

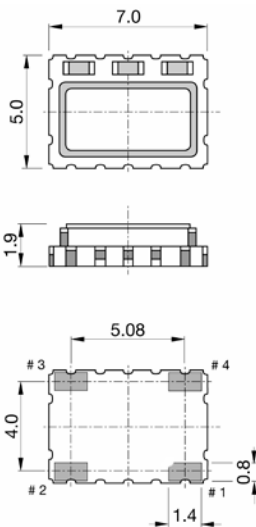
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the communications company



<b>Frequency range</b>	<b>5.000 ~ 52.000 MHz</b>		
Standard frequencies (fundamental)	5, 10, 12, 12.8, 13, 15.36, 16, 16.384, 19.2, 19.44, 20, 25, 26, 27, 30, 30.72, 32, 40 and 50 MHz		
Frequency stability:			
vs. temperature referenced to $(F_{MAX}+F_{MIN})/2$	$\leq \pm 0.50$ ppm	over -40 to +85 °C	(*)
vs. supply voltage changes referenced to frequency at nominal supply	$\leq \pm 0.1$ ppm	$\pm 5$ %	
vs. load changes referenced to frequency at nominal load	$\leq \pm 0.1$ ppm	$\pm 5$ %	
vs. aging @ +40 °C	$\leq \pm 1.0$ ppm	1st year	
G-sensitivity	2.0 ppb/g	per axis	
Frequency tolerance ex. factory @ +25 °C	0 ~ +1.0 ppm	@ +25 °C	
Supply voltage (nominal value $\pm 5$ %)	+2.8 V, +3.3 V or +5.0 V		(*)
Output signal	Clipped sine wave	(LV)CMOS	(*)
Output level	$> 0.8$ V <sub>p-p</sub>	$V_{OH} > 0.9 \cdot V_{CC}$ / $V_{OL} < 0.1 \cdot V_{CC}$	
Output load	10 k $\Omega$ // 10 pF	15 pF Max.	
Current consumption, depending on frequency	1.5 ~ 7 mA	2 ~ 10 mA	
Electronic Frequency Control (EFC)	$\Delta F = \pm 5$ to $\pm 10$ ppm	positive slope	(*)
Control voltage (V <sub>c</sub> )	+1.50 V $\pm 1.0$ V for 3.3 V	+2.50 V $\pm 2.0$ V for 5.0 V	(*)
EFC input impedance	$> 100$ k $\Omega$		
Phase noise (typical value for 40 MHz)	-90 dBc/Hz -118 dBc/Hz -140 dBc/Hz -151 dBc/Hz -156 dBc/Hz	@ 10 Hz @ 100 Hz @ 1 kHz @ 10 kHz @ 100 kHz	
Operating temperature range	-40 ~ +85 °C		(*)
Storage temperature range	-55 ~ +105 °C		
Reflow Profiles as per IPC/JEDEC J-STD-020C	$\leq 260$ °C over 10 sec. Max.		
Moisture sensitivity	Level 1 (unlimited)		

(\*) See available options on page #2

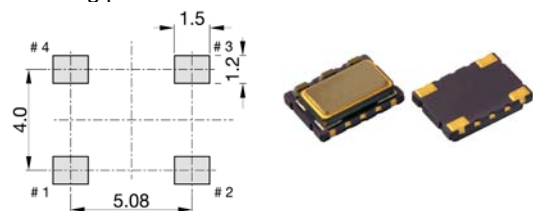
Note: Unless otherwise specified conditions are @+25 °C



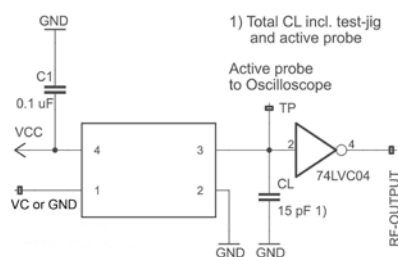
### Pin function

- # 1 V<sub>c</sub> (EFC) for VC-TCXO  
GND or NC for TCXO
- # 2 GND
- # 3 Output
- # 4 V<sub>cc</sub>

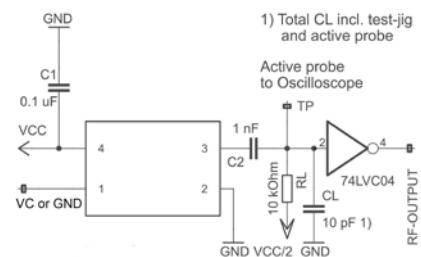
### Soldering pattern



### Test circuit for CMOS



### Test circuit for Clipped Sine Wave



2011/65/EU RoHS compliant

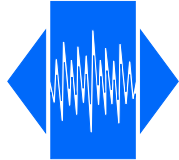
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# VTX 7T-STR3

**STRATUM-III**, high reliable,  
Temperature compensated (VC)TCXO

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## Environmental conditions

Test	IEC 60068 Part...	IEC 60679-1 Clause	MIL-STD-202G Method	MIL-STD-810F Method	MIL-PRF-55310D Clause	Test conditions (IEC)
Sealing tests (if applicable)	2-17	5.6.2	112E		3.6.1.2	Gross leak: Test Qc, Fine leak: Test Qk
Solderability Resistance to soldering heat	2-20 2-58	5.6.3	208H 210F		3.6.52 3.6.48	Test Ta method 1, Test Td <sub>1</sub> method 2, Test Td <sub>2</sub> method 2
Shock *	2-27	5.6.8	213B	516.4	3.6.40	Test Ea, 3 x per axis 100 g, 6 ms half-sine pulse
Vibration, sinusoidal*	2-6	5.6.7.1	201A 204D	516.4-4	3.6.38.1 3.6.38.2	Test Fc, 30 min per axis, 1 oct/min 10 Hz – 55 Hz 0,75 mm; 55 Hz – 2 kHz, 10 g
Vibration, random*	2-64	5.6.7.3	214A	514.5	3.6.38.3 3.6.38.4	Test Fdb
Endurance tests - ageing - extended ageing		5.7.1 5.7.2	108A		4.8.35	30 days @ 85 °C 1000 h, 2000 h, 8000 h @ 85 °C

Other environmental conditions on request

## Ordering code

**(0)7T-(1)(2)-(3)(4)-(5)-STR3-40.000MHz**

*Example: TX7T-C33-NNu50-STR3-40.000MHz*

Oscillator type	(1) Output signal	(2) Supply voltage	(5) Pulling range (VT only)
TX = TCXO VT = VC-TCXO	H = (LV)CMOS C= Clipped sine wave	28 = 2.8 V 30 = 3.0 V 33 = 3.3 V 50 = 5.0 V	V05 = 1.5 ± 1.0 V ±5 ppm V10 = 1.5 ± 1.0 V ±10 ppm  X05 = 2.5 ± 2.0 V ±5 ppm X10 = 2.5 ± 2.0 V ±10 ppm
<b>(3) Operating temperature</b>	<b>(4) Frequency stability</b>		Z = special spec
JK = -20 to +70 °C NN = -40 to +85 °C	u28 = ± 0.28 ppm		

2011/65/EU RoHS compliant

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