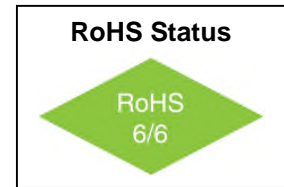


VFTX1412P
VCTCXO
14x12 mm SMD, LVPECL

Features

- Output Frequency to 165 MHz
- Low jitter and phase noise
- Meets Wander generation TDEV / MTIE for ITU-T G.8262 EEC options 1 & 2



Description

The VFTX1412P is a low noise TCXO which provides an output frequency up to 165 MHz. The temperature stability is less than 1ppm over a temperature range of -40 °C to + 85 °C. The VFTX1412P is available in a 14 mm x 12 mm surface mount package.

Electrical Specifications *

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Output Frequency	Fout		10		165	MHz	
Frequency Stability	$\Delta F/F$	Vs. Operating Temperature -40°C to +85°C		.4	1.0	ppm	
		Vs. Supply Voltage Vs. Aging / Year Vs. Aging / 10 Years		± 0.1 ± 1 ± 3		ppm/V ppm ppm	First Year 10 Years
Operating Temperature	Ta		-40		+85	°C	
Supply Voltage	Vcc		3.15	3.3	3.45	V	
Input Current	Icc				100	mA	
Initial Accuracy		@ 25 ° C Vt - Floating		100	300	ppB	
Voltage Control	Vc		0		3.3	V	
Input Impedance			10			kΩ	
APR			± 5			ppm	
Deviation slope		Monotonic positive					
Linearity			-10		+10	%	
Modulation BW			10			Hz	3dB BW
Output Voltage Levels	V _{OH}	50 Ω to Vcc-2V or Thevenin Equivalent	Vcc-0.95		Vcc-0.85	V	
	V _{OL}		Vcc-1.65		Vcc-1.53	V	

*V_{CC} = 3.3V ; Ta = +25°C unless otherwise specified.

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Electrical Specifications *

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
SSB Phase Noise		100Hz		-100		dBc/Hz	@ 156.25 MHz
		1KHz		-130			
		10KHz		-146			
		100KHz		-153			
		1MHz		-160			
Duty Cycle			45		55	%	
Start-up Time				2	3	s	

Absolute Maximum Ratings

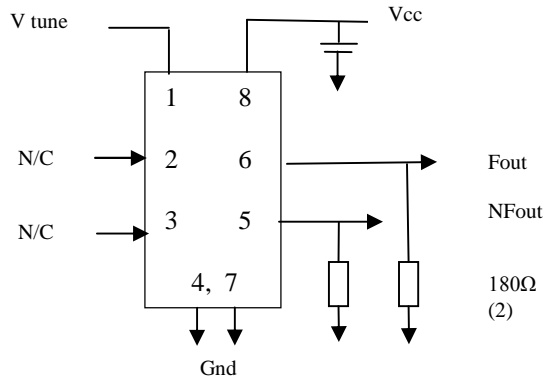
Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Supply Break Down Voltage	V _{CC}		-0.5		4.6	V	
Storage Temperature	T _S		-40		+85	°C	

Environmental and Mechanical

Parameter	Specification
Mechanical Shock	Per MIL-STD-202, Method 213, Condition E
Thermal Shock	Per MIL-STD-883, Method 1011, Condition A
Vibration	Per MIL-STD-883, Method 2007, Condition A
Soldering Conditions	260°C for 10s max
Hermetic Seal	Leak rate less than 5x10 ⁻⁸ atm.cc/s of helium (crystal only)
Termination	Gold flash
Marking	Epoxy ink or laser engraved

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Connection Diagram



Mechanical Outline

Pin Assignments

Pin #	Connection
1	V tune
2	N / C
3	N / C
4	Gnd
5	N Fout
6	Fout
7	Gnd
8	Vcc

