

VFTX215

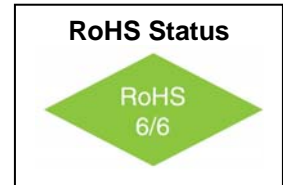
Low Noise TCXO to 200 MHz

15.5mm x 19.5mm



Features

- 100MHz Output Frequency
- Ultra Low Jitter and Phase Noise: -135 dBc/Hz @ 1KHz
- 0.5 ppm Stability
- Low Power: < 135mW typical

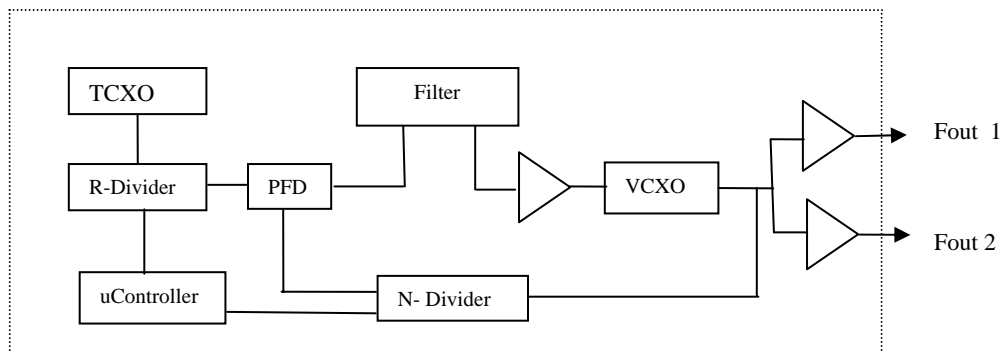


Applications

- Test and Measurement
- Wireless Infrastructure

Description

The VFTX215 is a low noise TCXO which provides two CMOS outputs at a frequency of 100MHz. The temperature stability is less than 0.5ppm over a temperature range of -40 °C to + 85 °C. Operating with a +3.3 volt power supply the device typically consumes 135 mW. The VFTX215 is available in a 15.5 mm x 19.5 mm surface mount package.



Block Diagram

VFTX215
Low Noise TCXO to 200 MHz
15.5mm x 19.5mm



Absolute Maximum Ratings

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Supply Break Down Voltage	Vcc		-0.5		5.5	V	
Storage Temperature	Ts		-45		+95	°C	

Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Output Frequency	Fout		20	100	200	MHz	
Output Level Logic "1"	Voh	10K Ω // 10 pF	Vcc-0.1		Vcc	V	
Output Level Logic "0"	Vol		0.0		.1	V	
Frequency Stability		-40 °C to +85 °C			0.5	ppm	
SSB Phase Noise	Φ_n	100Hz 1KHz 10KHz 100KHz	α		-110 -135 -145 -155	dBc/Hz	@ 100 MHz
Duty Cycle		@ 50%	45	50	55	%	
Rise / Fall Time	Tr/Tf	20% to 80%	.8		4.0	ns	
Voltage Control	Vc		.3		3.0	V	
Input Impedance			10K			Ω	
APR			± 5			ppm	
Start up time				2		s	
Supply Voltage	Vcc		3.15	3.30	3.45	V	
Input Current	Icc			45	55	mA	
Operating Temperature Range	Ta		-40°		+85°	°C	

VFTX215
Low Noise TCXO to 200 MHz
15.5mm x 19.5mm



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 5×10^{-8} atm.cc/s of helium (crystal only)

Pin Assignments

Pin #	Symbol	Description	Notes
1	Fin	Input Frequency	
2	DNC	Do not connect	
3	Vccp	Connect to Vcc pin #4	Add .1 uF Capacitor
4	Vcc	3.3 Volt Power Supply	
5	DNC	Do not connect	
6	DNC	Do not connect	
7	DNC	Do not connect	
8	Gnd	Ground	
9	n/c	No connection	
10	n/c	No connection	
11	Fout 1	Output Frequency	
12	Fout 2	Output Frequency	
13	Vcc	3.3 Volt Power Supply	
14	Gnd	Ground	

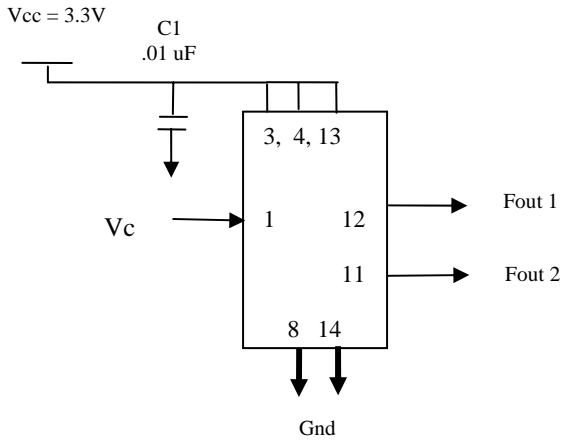
How to Order

VFTX215 — FREQUENCY, MHz

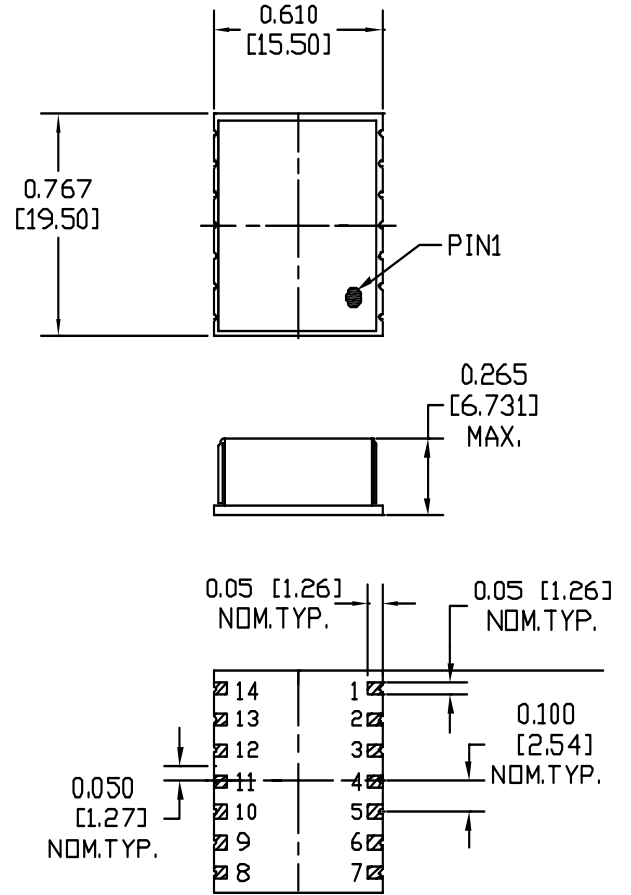
VFTX215
Low Noise TCXO to 200 MHz
15.5mm x 19.5mm



Connection Diagram



Mechanical Outline



Recommended Pad Layout

