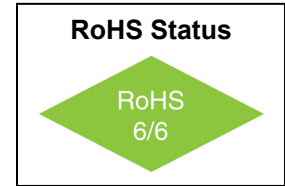


VFXO100
XO
9x14mm SMD, LVPECL

Features

- 180MHz to 1.0GHz frequency range
- Ultra low jitter and phase noise
- Low aging, vacuum sealed crystal



Applications

- Optical Networking, SONET / SDH
- 10 Gigabit Ethernet
- Broadband Access

Replaces Part Number: VFT5C

Electrical Specifications *

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Frequency Range	F		180		1,000	MHz	
Frequency Stability	$\Delta F/F$	Vs. Operating Temperature B: 0°C to +70°C G: -40°C to +85°C			± 20 ± 20	ppm	
		Vs. Supply Voltage Vs. Aging / Year		± 3 ± 1		ppm/V ppm	First Year
Operating Temperature Range	T		0° -40°		+70° +85°	°C	Order Code B Order Code G
Output		Signal	LVPECL Unterminated				
Phase Jitter		1 σ		0.2	0.5	ps	
SSB Phase Noise		100Hz 1kHz 10kHz 100kHz		-93 -118 -142 -145		dBc/Hz	@ 155.52MHz
Supply Voltage	V _{CC}		3.15	3.30	3.45	V	
Input Current	I _{CC}	50 Ohms Load			75	mA	

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

VFXO100
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Electrical Specifications *

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Load	50 Ohms to $V_{CC}-2V$ or Thevenin Equivalent Bias Required						
Duty Cycle		@ 50%	45	50	55	%	
Rise / Fall Time	T_r/T_f	20% to 80%			0.5	ns	
Logic "1" Level	V_{OH}		$V_{CC}-0.96$		$V_{CC}-0.81$	V	
Logic "0" Level	V_{OL}		$V_{CC}-1.85$		$V_{CC}-1.65$	V	
Start up time				2	10	ms	
Subharmonics				-50	-40	dBc	
Enable / Disable Function	Input HIGH (>2.5V): DISABLED Input LOW (<0.5V) or floating: ACTIVE						
Enable / Disable Time	T_E/T_D				100	ns	

* $V_{CC} = 3.3V$; $T_a = +25^{\circ}C$ unless otherwise specified.

Absolute Maximum Ratings

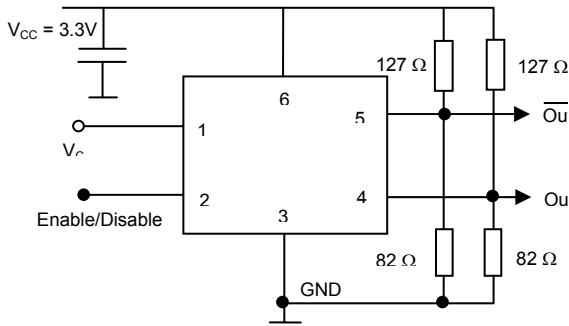
Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Supply Break Down Voltage	V_{CC}		-0.5		7.0	V	
Storage Temperature	T_s		-55		+85°	°C	

Environmental and Mechanical

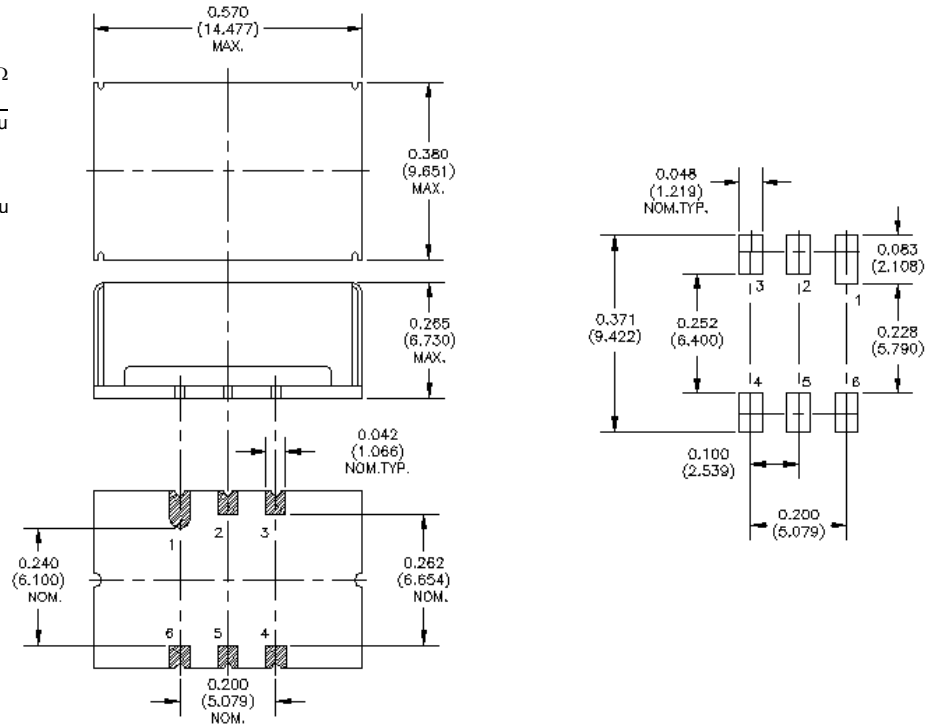
Parameter	Specification
Mechanical Shock	Per MIL-STD-202, Method 213, Condition E
Thermal Shock	Per MIL-STD-883, Method 1011, Condition A
Vibration	Per MIL-STD-883, Method 2007, Condition A
Soldering Conditions	260°C for 10s max
Hermetic Seal	Leak rate less than 5×10^{-8} atm.cc/s of helium (crystal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

VFXO100 XO 9x14mm SMD, LVPECL

Connection Diagram



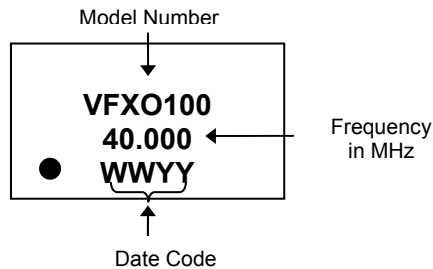
Mechanical Outline



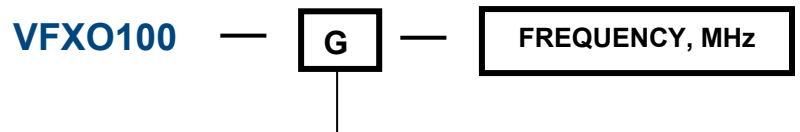
Pin Assignments

Pin #	Connection
1	NC
2	Enable
3	Case, GND
4	Output
5	Output
6	V _{CC}

Marking Specification



How to Order



Temperature Range

Code	Specification
B	0°C to 70°C
G	-40°C to 85°C