

VF230C

XO Low Jitter 3.3V

5x7mm SMD, LVPECL / LVDS

Features

- 750kHz to 800MHz frequency range
- <5.0 ps RMS jitter over 12kHz – 20MHz
- Tristate



RoHS Status



Applications

- Optical Networking, SONET / SDH
- Gigabit Ethernet
- Fibre Channel
- DSL

Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Frequency Range	F		0.75		800	MHz	
Frequency Stability	$\Delta F/F$	Vs. Operating Temperature			± 100 ± 50 ± 25 ± 20	ppm	See "How to Order" chart
		Vs. Supply Voltage		± 1.5	± 3	ppm/V	First Year After first year
		Vs. Aging / Year		± 3 ± 1		ppm/y	
Operating Temperature	T		0° -40°		+70° +85°	°C	Order Code A Order Code B
Output		LVPECL LVDS					See "How to Order" chart
Supply Voltage	V _{CC}		3.15	3.3	3.45	V	
Period Jitter RMS		19.44MHz 77.76MHz 155.52MHz 622.08MHz		5 8 9 10		ps	
Integrated Jitter RMS 12kHz to 20MHz		155.52MHz		3	5	ps	
Symmetry		(V _{DD} -1.3) V _{DC} 1.25V _{DC}			45/55	%	PECL LVDS

VF230C
XO Low Jitter 3.3V
5x7mm SMD, LVPECL / LVDS

Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Phase Noise		10Hz		-60		dBc/Hz	@19.44MHz
		100Hz		-90			
		1kHz		-112			
		10kHz		-140			
		100kHz		-140			
		10Hz		-60		dBc/Hz	@106.25MHz
		100Hz		-90			
		1kHz		-112			
		10kHz		-127			
		100kHz		-125			
		10Hz		-60		dBc/Hz	@155.52MHz
		100Hz		-90			
		1kHz		-112			
		10kHz		-125			
		100kHz		-123			
		10Hz		-60		dBc/Hz	@622.08MHz
		100Hz		-90			
		1kHz		-109			
		10kHz		-110			
		100kHz		-109			
Supply Current	I _{CC}	0.75 – 24MHz			25	mA	PECL
		24 – 160MHz			65		
		160 – 800MHz			100		
		0.75 – 24MHz			25	mA	LVDS
		24 – 96MHz			45		
		96 – 800MHz			80		
Load	50 Ohms to V _{DD} -2V (PECL) 100 Ohms (LVDS)						
Output High Voltage	V _{OH}			V _{DD} -1.025 1.4	1.6	V	PECL LVDS
Output Low Voltage	V _{OL}		0.9	1.1	V _{DD} -1.620	V	PECL LVDS
Output Differential Voltage	V _{OD}		247	355	454	mV	LVDS
Offset Voltage	V _{OS}		1.125	1.2	1.375	V	LVDS
Rise / Fall Time	Tr/Tf	20% to 80%		0.6 0.7	1.5 1.0	ns	PECL LVDS
Tristate	“1”: Output Enable – Pin 1 may float or 2.8V min (3.3V V _{DD}) “0”: Tristate – Pin 1 requires 0.4V max (3.3V V _{DD})						

VF230C
XO Low Jitter 3.3V
5x7mm SMD, LVPECL / LVDS



Environmental and Mechanical Conditions

Parameter	Conditions
Shock	MIL-STD 883, Method 2002, Cond. B (1500 peak g, 0.5 ms duration, ½ sine wave, 5 shocks in 6 planes)
Humidity	Resistant to 85° R.H. at 85°C
Vibration	MIL-STD 883, Method 2007, Cond. A (20-2000 Hz of 0.06" d.a. or 20 Gs, whichever is less)
Leak	MIL STD 883, Method 1014, Condition A and Condition C
Case	Hermetically sealed ceramic LCC
Pads	40 microinch of gold over nickel
Marking	Epoxy ink or laser engraved
Resistance to Solvents	MIL STD 202, Method 215

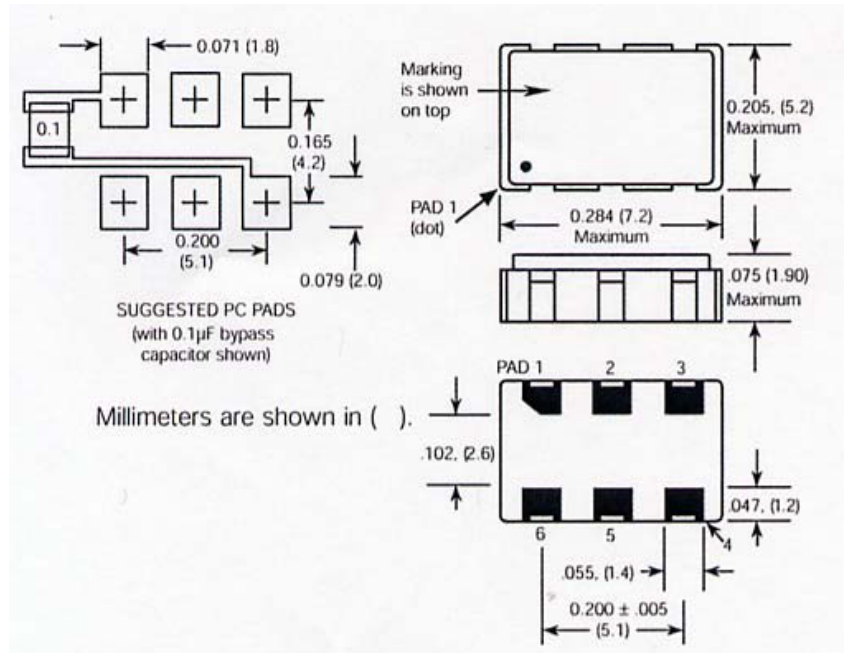
VF230C

XO Low Jitter 3.3V

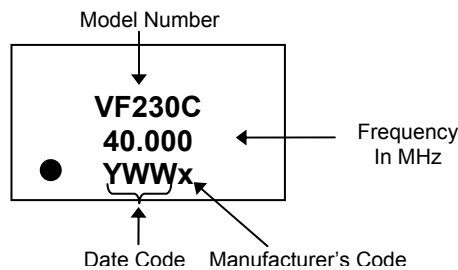
5x7mm SMD, LVPECL / LVDS

Pin Assignment

Pin #	Connection
1	Tristate
2	N/C
3	Case, GND
4	Output
5	Output
6	Supply Voltage



Marking Specification



How to Order

