

VFJA923

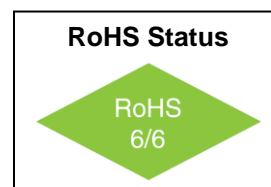
156.25 MHz Jitter Attenuator

13mm x13mm SMD, LVPECL



Features

- Low phase noise: -130 dBc/Hz @ 1 kHz
- Jitter: < 0.1 ps



Applications

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

Electrical Specifications @ Vcc = 3.3V; Ta = 25°C

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Output Frequency Range	Fout			156.250		MHz	
Input Frequency Range	Fin		0.008		200	MHz	See Table 1
Input Level	Vin	AC coupled internally	0.4		3.3	V p-p	Note 2
Output Level Logic "1"	Voh	50 Ohm to Vcc-2V or Thevenin Equivalent	Vcc-0.96		Vcc-0.81	V	
Output Level Logic "0"	Vol		Vcc-1.85		Vcc-1.65	V	
Phase Jitter		12KHz to 20MHz		50	150	fs (rms)	
SSB Phase Noise	φn	100Hz 1KHz 10KHz 100KHz		-100 -130 -145 -150		dBc/Hz	@ 156.25MHz
APR			± 20			ppm	
Modulation BW			10			Hz	Note 1
Duty Cycle		@ 50%	45	50	55	%	
Rise / Fall Time	Tr/Tf	20% to 80%			0.6	ns	
Start up time				3		s	
Supply Voltage	Vcc		3.15	3.30	3.45	V	
Input Current	Icc				75	mA	
Operating Temperature Range	Ta		-40°		+85°	°C	
Enable / Disable Function	Input HIGH (>2.5V): Output Disabled (Fout="0"; nFout="1") Input LOW (<0.5V) or floating: Output Enabled						LVC MOS
Enable / Disable Time	Te/Td				100	ns	

Notes:

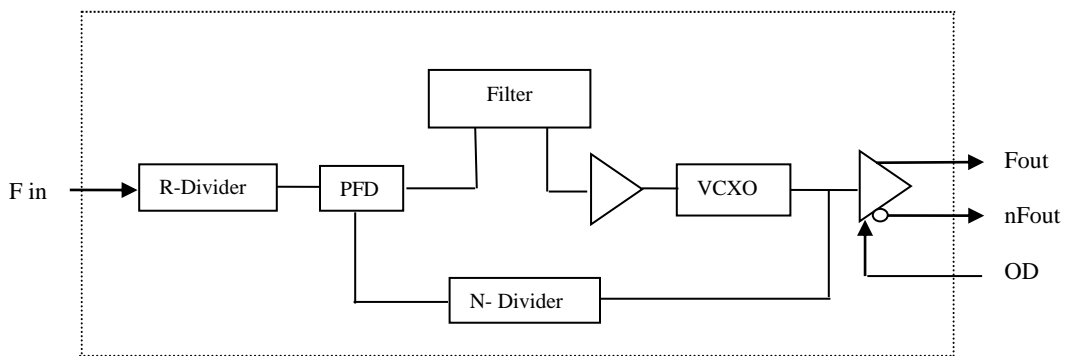
1. Consult factory for Bandwidth options
2. For Fin < 20 MHz , ensure SR > 50 V/μs

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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		-55		+105	°C	



Block Diagram

P/N suffix	Input Frequency (MHz)	Output Frequency (MHz)	P/N suffix	Input Frequency (MHz)	Output Frequency (MHz)
-001	156.250	156.250	-002	25.00	156.250

Table 1

How to Order

VFJA923 -- Suffix

See Table 1

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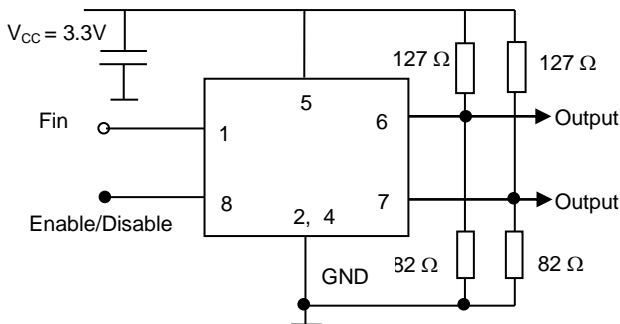
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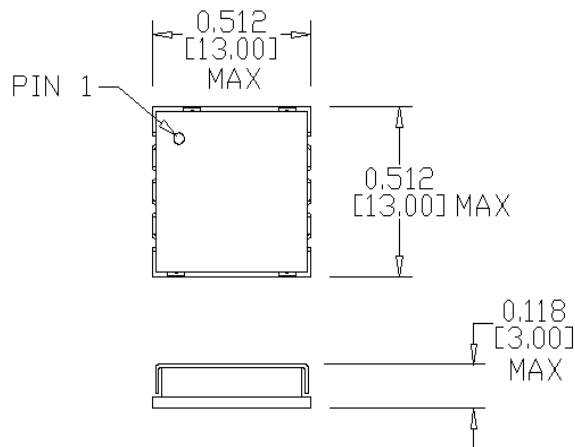
Environmental and Mechanical Conditions

Parameter	Condition
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)
Marking	Epoxy ink or laser engraved

Connection Diagram



Mechanical Outline



Pin Assignments

Pin #	Connection
1	Fin
2	Gnd
3	N / C
4	Gnd
5	Vcc
6	Fout
7	NFout
8	Output Disable

