

VF900703

Frequency Translator And Jitter Attenuator



Features

- Two Selectable Input Frequencies
- Ultra Low Jitter and Phase Noise

RoHS Status

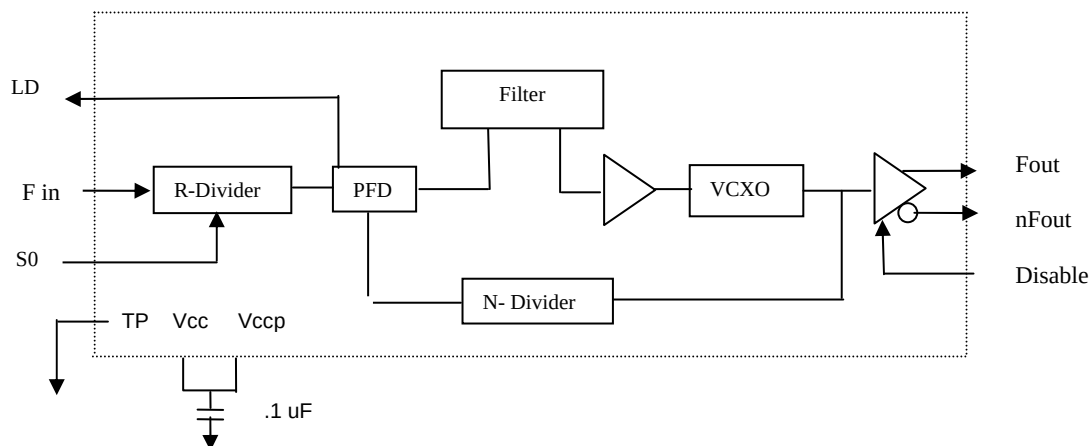
RoHS
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Applications

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

Description:

The VF900703 is a Frequency Translator and Jitter Attenuator which accepts an input frequency of 161.1328 MHz or 156.250 MHz and provides an output frequency at 156.250 MHz. The desired input is determined by the frequency select input "S0". A Lock Detect output signal indicates an "out of lock" condition. The device is implemented with a Phase Locked Loop where all Loop Filter components are integrated into the module.



Block Diagram



VF900703**Frequency Translator
And Jitter Attenuator****Absolute Maximum Ratings**

Parameter	Min	Max	Units
Power Supply Voltage	-.50	+4.0	Volts
Storage Temperature	-45	+90	° C

Operating Specification

Parameter	Specification	Notes
Supply Voltage	3.3 Volts +/- 5%	
Supply Current	80 mA (max)	
Output Frequency	156.250 MHz	LVPECL
Output Level Logic "1"	V _{cc} - .9V (typ)	
Output Level Logic "0"	V _{cc} - 1.75 V (typ)	
Jitter (rms)	.200 pS (typ)	12 KHz to 20 MHz
Input frequency Fin "0"	161.1328125 MHz	See Table 1
Fin "1"	156.250 MHz	
Input configuration	Single-ended, AC coupled	
Input Level	150 mVp-p(min) / 1500mV (max)	
Modulation Bandwidth	10 Hz (typ)	Consult Factory for options
Start up Time	800 mS (max)	
I/O Select Input	S0	LVC MOS See Table 1
Lock Detect Output (LD)	Logic "1" : In lock Logic "0" : Out of lock	LVC MOS
Output Disable	Logic "1" : Output Disabled Logic "0" or floating: Output Enabled	LVC MOS
Lock / Capture Range	+/- 100 ppm (min)	
Operating Temperature Range	-40 °C to +85 °C	

Table 1

Input Frequency	Output Frequency	Select input [S0]
161.1328125 MHz	156.250 MHz	0
156.250 MHz	156.250 MHz	1



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Pin Assignments:

Pin #	Symbol	Description	Notes
1	Fin	Input Frequency	
2	LD	Lock Detect	
3	Vccp	Connect to Vcc pin #4	Add .1 uF Capacitor
4	Vcc	3.3 Volt Power Supply	
5	TP	Internal test point	Connect to GND
6	DNC	Do not connect	
7	S0	Input Select	
8	Gnd	Ground	
9	n/c	No connection	
10	Disable	Output Disable	
11	Fout	Output Frequency	
12	nFout	Complementary Output Frequency	
13	n/c	No connection	
14	Gnd	Ground	

Mechanical Outline:

