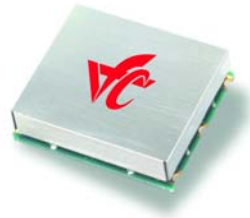


VFCG100

Quad Output Clock Generator

Features

- 300 MHz to 1.5 GHz Frequency Range
- 4 Selectable Output Frequencies
- Stability: < 1 ppm
- Low Profile SMD package



RoHS Status

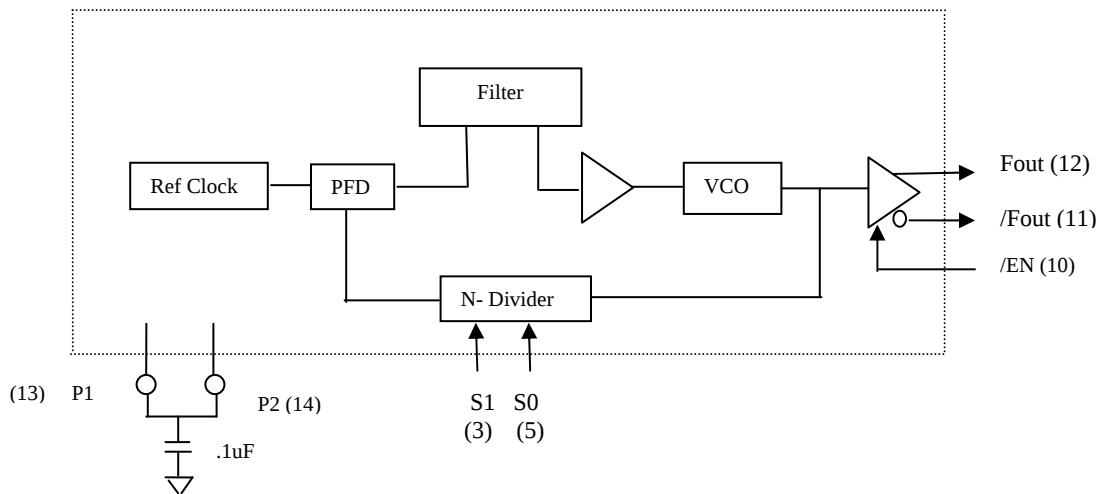


Applications

- Optical Networking, Sonet / SDH / ATM
- 10 Gigabit Ethernet
- Forward Error Correction (FEC)

Description

The VFCG100 is a Clock Generator which provides an output frequency up to 1.5 GHz. Up to four preset output frequencies can be selected by asserting the frequency select inputs [S1:S0]. The VFCG100 is offered in a 19.5mm x17mm surface mount package. Consult factory for frequency selections.



Block Diagram

VFCG100

Quad Output Clock Generator



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	110 mA (max)	
Output Frequencies (F0) – F0(3)	300 MHz (min) to 1500 MHz (max)	See Table 2
Output Frequency Range	100MHz (max)	Fout Min to Fout Max
Output Configuration	Differential LVPECL	Unterminated
Jitter (rms)	0.8 pS (typ)	50 KHz to 80 MHz
Accuracy	+/- 5 ppm	@ 25 °C
Temperature Stability	+/- 1ppm	-40 °C to + 85 °C
Start up Time	100 mS (max)	
I/O Select Inputs	S1: S0	LVCMOS
Enable / Disable Input	Logic "0" or Floating: Output Enabled Logic "1": Output Disabled	
Operating Temperature Range	-40 °C to +85 °C	

Pin Assignments

Pin #	Symbol	Description	Notes
1	DNC	Do not connect to this pad	
2	Gnd	Ground	
3	S1	Output Select (msb)	
4	DNC	Do not connect to this pad	
5	S0	Output Select (lsb)	
6	DNC	Do not connect to this pad	
7	DNC	Do not connect to this pad	
8	Vcc	3.3 Volt Power Supply	
9	Gnd	Ground	
10	/OE	Output Disable	
11	/Fout	Complimentary Output	
12	Fout	Output	
13	P1	Connect to P2 externally	Add .1 uF Capacitor
14	P2	Connect to P1 externally	

VFCG100

Quad Output Clock Generator

Ordering Information:

Once Input and Output frequencies have been submitted and approved, the Factory will assign a part number.

VFCG100 - suffix

Sample Frequencies Table 2

P/N suffix	S1:S0	Output Frequency (MHz)	P/N suffix	S1:S0	Output Frequency (MHz)
-001	00	622.080	-002	00	1065.00
	01	644.5314		01	1066.00
	10	669.32658		10	1067.00
	11	693.48315		11	1068.00
-003	00	666.5192	-004	00	900.00
	01	669.32658		01	910.00
	10	693.48315		10	920.00
	11	704.38		11	930.00
-005	00	622.080	-006	00	800.00
	01	625.000		01	820.00
	10	666.5192		10	840.00
	11	690.5692		11	860.00
-007	00	1500			
	01	1500			
	10	1500			
	11	1500			

Mechanical Outline

