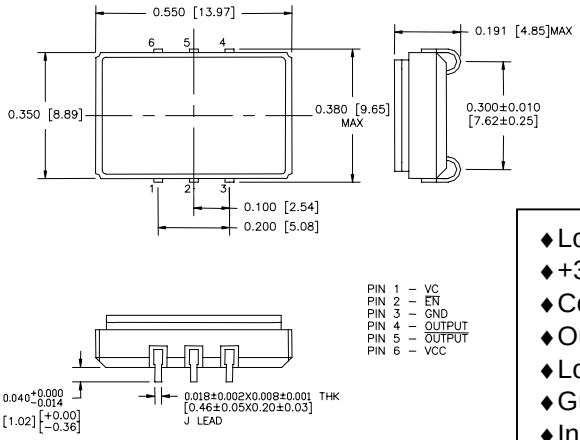
CTS Reeves
FREQUENCY PRODUCTS

Model 344
"Panther PLL+" Series
Low Cost PECL VCXO



- Low Phase Jitter: < 15 pSec RMS
- +3.3Vdc or +5.0Vdc Operation
- Complimentary PECL Output Stage
- Output Enable Function
- Low Noise Phase Locked Multiplier
- Guaranteed Minimum Pull Range
- Industry Standard Ceramic Package

Electrical Characteristics

Parameter	Sym	Conditions	Min	Typical	Max	Unit
Power Supply	Vcc	± 5%	3.135 4.750	3.30 5.00	3.465 5.250	Vdc
Supply Current	Icc	Vcc=Max. No Load		60 (3.3Vdc) 80 (5.0Vdc)	100	mA
Center Frequency	f_{nom}		40	155.520 125.00 77.760	156	MHz
Freq. vs. Temp.	Δf/ΔTemp	Over Operating Temp. Range		± 15		ppm
Freq. vs. Voltage	Δf/ΔVcc	Vcc ±5%		± 2		ppm
Freq. vs. Load	Δf/ΔRL	± 10% Variation		± 1		ppm
Freq. vs Time (Aging)	Δf/ΔTime	10 years		10		ppm
Control Voltage	VC	3.3V "L" Version 5.0V "S" Version	0.0 0.5		3.3 4.5	V V
Frequency Deviation	Δf	+25°C at time of Shipment		± 120		ppm
Linearity	Lin	Best Staight Line Fit	-10	2	10	%
Absolute Pull Range	APR	Under all conditions for the life of the part (Ref. to f_{nom})	±50			ppm
Input Impedance	Zin		10			KΩ
Bandwidth		-3db Point	10			KHz
Symmetry	Sym	@ 50% Level	45	50	55	%
Amplitude	Vo	Nominal Load	Vcc-1.62V		Vcc-1.025V	
Rise/Fall Times	tr, tf	20% to 80%			550	pSec
Load	RL	to Vcc-2.0V or Equivalent		50		Ω
Phase Jitter		12KHz to 20MHz Bandwidth			<15	pSec RMS

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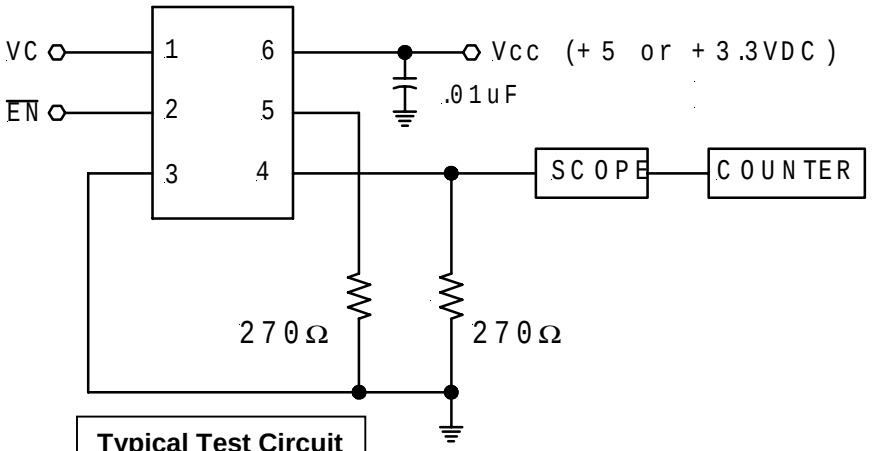
Enable Truth Table

Pin 2 (Enable)	Pin 4	Pin 5
"0"	Output	Complimentary Output
"1"	"0"	"1"
Open	Output	Complimentary Output



Typical Test Circuit

Environmental / Mechanical Specifications

Storage Temperature:	-55° to +125°C
Reflow Soldering:	will withstand 240°C for 20 Seconds
Shock:	1000 G's, 5 mSec. Pulse (3 Shocks/Axis)
Vibration:	20 G's RMS, 20 to 2000 Hz
Case:	Ceramic / Kovar
Seal:	Resistance Weld
Fine Leak Rate:	< $5x10^{-8}$ Atm. Cc/sec. of Helium

Ordering Information

Model 344 ☐ ☐ -- ___._____

Example: 344SB-155.52
344LA-125.00
344LB-77.760

Supply Voltage
L = +3.3Vdc
S = +5.0Vdc

Operating Temp. Range
A = 0° to +70°C
B = -40° to +85°C

Frequency in MHz

♦♦♦ CTS Frequency Products ♦ 400 W. North Street ♦ Carlisle, PA 17013 ♦ 717-243-5929 ♦♦♦