CFPT-8000, -8010, -8100, -8110, -8200, -8210

ISSUE 4; 19 OCTOBER 2004

Delivery Options

- Please contact our sales office for current leadtimes

Output Compatibility

- HCMOS

Description

- The CFPT-8000 series are surface mount temperature compensated voltage controlled crystal oscillators (TCVCXO) providing a high degree of frequency stability over a wide temperature range. They are particularly suited to Stratum and SONET clock applications

Package Outline

- 19.9 × 12.9 × 7.7mm SMD **Standard Frequency**
- 19.440MHz

Frequency Stability

- ±2.0ppm (ref. 25°C)
- Supply Voltage: (+Vs) ±5% ≤ ±0.2ppm

Frequency Tolerance

- ≤ ±1.0ppm @ 25°C
- Vc = 2.5V @ 5V Vs
- Vc = 1.5V @ 3.3V Vs

Storage Temperature Range

- –25 to 80°C

Environmental Specification

- Vibration: IEC 60068-2-6 Test Fc Procedure B4, 10-60Hz 0.75mm displacement, 60-500Hz at 98.1m/s², 30 minutes in each of three mutually perpendicular planes at 1 octave per minute
- Shock: IEC 60068-2-27 Test Ea, 981m/s² acceleration for 6ms duration, 3 shocks in each direction along three mutually perpendicular axes
- Soldering: SMD product, suitable for Convection Reflow soldering. Peak temperature 230°C. Maximum time above 200°C, 90 secs.
- Sealing: Non hermetic package
- Marking: Label, resistant to all common solvents

Frequency Control (positive slope)

- ±40ppm min / ±62ppm max (CFPT-8000, 8010)
- ±10ppm min / (CFPT-8100, 8110)
- No adjust (CFPT-8200, 8210)

Voltage Control Pad 1

- 2.5V (+0.5V to +4.5) @ 5V supply voltage (CFPT-8000, -8100)
- 1.5V (+0.3V to +3.0) @ 3.3V supply voltage (CFPT-8010, -8110)

Modulation Bandwidth

- ≥ 2.0kHz

Ageing

- <±3ppm max. in first year
- <±10ppm max. for 15 years

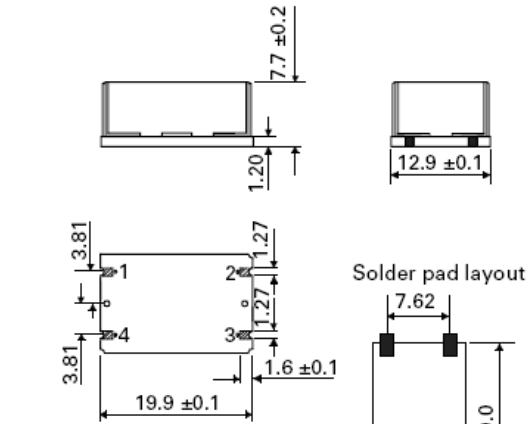
Marking

- Model number
- Frequency
- Date Code (Year/Week)
- Static Sensitivity Symbol Δ (denotes pad 1)

Minimum Order Information Required

- Frequency + Model Number

Outline in mm



Pad Connections
1. Voltage Control
2. GND
3. Output
4. +Vs

4 Pads
1.53 × 2.54

Newwoo Electronics
24G,China Phoenix Building No.2,No.2008 Shannan Road,Shenzhen,China 518026
Tel:+86(755)23990245 Fax:+86(755)23990241
Email:sales@newwoo.com Web:http://www.newwoo.com

Electrical Specifications - maximum limiting values when measured in HCMOS test circuit.

Frequency Range	Supply Voltage	Supply Current	Rise Time(t_r)	Fall Time(t_f)	Duty Cycle	Model Number
13.0 to 26.0MHz	5V±0.25V	15mA	10ns	10ns	40/60%	CPFT-8000
>26.0 to 160.0MHz		40mA	3ns	2ns		
13.0 to 26.0MHz	3.3V±0.10V	10mA	10ns	10ns	40/60%	CPFT-8010
>26.0 to 120.0MHz		30mA	3ns	2ns		
13.0 to 26.0MHz	5V±0.25V	15mA	10ns	10ns	40/60%	CPFT-8100
>26.0 to 160.0MHz		40mA	3ns	2ns		
13.0 to 26.0MHz	3.3V±0.10V	10mA	10ns	10ns	40/60%	CPFT-8110
>26.0 to 120.0MHz		30mA	3ns	2ns		
13.0 to 26.0MHz	5V±0.25V	15mA	10ns	10ns	40/60%	CPFT-8200
>26.0 to 160.0MHz		40mA	3ns	2ns		
13.0 to 26.0MHz	3.3V±0.10V	10mA	10ns	10ns	40/60%	CPFT-8210
>26.0 to 120.0MHz		30mA	3ns	2ns		

Frequency Stabilities Available Over Operating Temperature Ranges

Operating Temperature Range	Frequency Stabilities Vs Operating Temperature Range					
	±1.0ppm	±1.5ppm	±2.0ppm	±2.5ppm	±3.0ppm	±5.0ppm
0 to 50°C	Code FP	Code CP*	Code GP*	Code HP*	Code JP*	Code KP*
–10 to 60°C	—	Code CR	Code GR	Code HR*	Code JR*	Code KR*
0 to 70°C	—	Code CC	Code GC	Code HC*	Code JC*	Code KC*
–20 to 70°C	—	—	Code GS	Code HS	Code JS	Code KS
–25 to 75°C	—	—	—	—	Code JT	Code KT
–30 to 75°C	—	—	—	—	Code JU	Code KU
–30 to 85°C	—	—	—	—	—	Code KW

* Denotes the only frequency stabilities available for model numbers CFPT-8000 & -8010

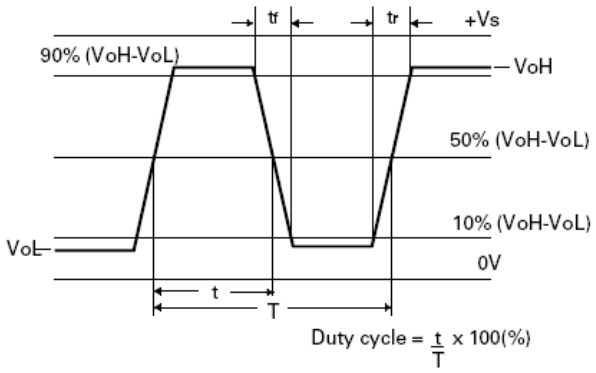
Ordering Example 19.440MHz CFPT-8000 HP

Frequency

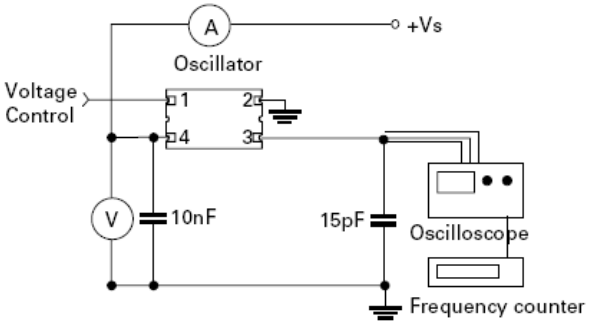
Model number

Frequency Stability Vs Operating Temperature Code

Output Waveform - HCMOS



Test Circuit



Newwoo Electronics
24G,China Phoenix Building No.2,No.2008 Shannan Road,Shenzhen,China 518026
Tel:+86(755)23990245 Fax:+86(755)23990241
Email:sales@newwoo.com Web:http://www.newwoo.com