

CFPV-41, -42, -43, -44

ISSUE 3; 18 OCTOBER 2004

Delivery Options

- Please contact our sales office for current leadtimes

Description

- CFPV-41, -42, -43, -44 are surface mount voltage controlled crystal oscillators (VCXOs) providing a high degree of frequency stability over a wide temperature range. They are particularly suited to applications where space is at a premium

Package Outline

- 7.5 x 5.0 x 1.9mm SMD (surface mount device)

Output Compatibility

- Tri-state HCMOS, Load 15pF max

Standard Frequency Stabilities

- ±25ppm, ±50ppm, ±100ppm (inclusive of supply voltage & output load variations over the operating temperature range)

Operating Temperature Ranges

- 10 to 70°C
- 40 to +85°C

Storage Temperature Range

- 55 to 125°C

Voltage Control (pad 1)

- 2.5V±2.0V (CFPV-41, -43)
- 1.65V±1.5V (CFPV-42, -44)

Linearity and Modulation Bandwidth

- ≤±10%

Modulation Bandwidth

- >20kHz

Tri-State Operation

- Logic '0' to pad 2 disables oscillator output; when disabled oscillator output goes to the high impedance state
- No connection of Logic '1' to pad 2 enables oscillator

Solder Conditions

- For typical soldering conditions, please see the relevant pages in Applications Notes

Marking

- Model number, Operating Temperature Code (if applicable), Frequency Stability Code, Frequency

Minimum Order Information Required

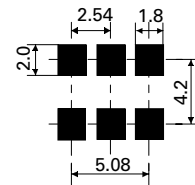
- Frequency + Operating Temperature Code (if applicable) + Model Number + Frequency Stability

Outline in mm

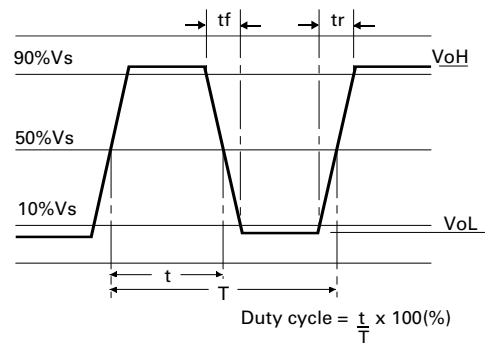


Pad Connections
 1. Voltage Control
 2. Enable/Disable
 3. GND
 4. Output
 5. N/C
 6. +Vs

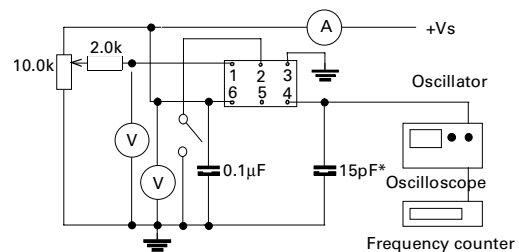
Solder pad layout



Output Waveform - HCMOS



Test Circuit



*Inclusive of jigging & equipment capacitance

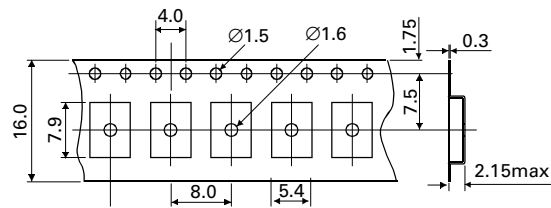
Electrical Specifications - maximum limiting values when measured in HCMOS test circuit.

Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Output Frequency Change	Rise Time(t_r)	Fall Time(t_f)	Duty Cycle	Model Number
1.0 to 18.0MHz	± 25 ppm, 50ppm ± 100 ppm	5V ± 0.25 V	20mA	± 50 ppm min ± 100 ppm min	5ns	5ns	40/60%	CFPV-41, -41I
		3.3V ± 0.16 V	15mA	± 50 ppm min ± 100 ppm min				CFPV-43, -43I
	5V ± 0.25 V	30mA	± 50 ppm min ± 100 ppm min	CFPV-42, -42I				
				CFPV-44, -44I				
>18.0 to 30.0MHz	± 25 ppm, ± 50 ppm ± 100 ppm	5V ± 0.25 V	30mA	± 50 ppm min ± 100 ppm min	5ns	5ns	40/60%	CFPV-41, -41I
		3.3V ± 0.16 V	15mA	± 50 ppm min ± 100 ppm min				CFPV-43, -43I
	5V ± 0.25 V	30mA	± 50 ppm min ± 100 ppm min	CFPV-42, -42I				
				CFPV-44, -44I				
>30.0 to 36.0MHz	± 25 ppm, ± 50 ppm ± 100 ppm	5V ± 0.25 V	30mA	± 50 ppm min ± 100 ppm min	5ns	5ns	40/60%	CFPV-41, -41I
		3.3V ± 0.16 V	25mA	± 50 ppm min ± 100 ppm min				CFPV-43, -43I
	5V ± 0.25 V	30mA	± 50 ppm min ± 100 ppm min	CFPV-42, -42I				
				CFPV-44, -44I				
>36.0 to 45.0MHz	± 25 ppm, ± 50 ppm ± 100 ppm	5V ± 0.25 V	40mA	± 50 ppm min ± 100 ppm min	5ns	5ns	40/60%	CFPV-41, -41I
		3.3V ± 0.16 V	25mA	± 50 ppm min ± 100 ppm min				CFPV-43, -43I
	5V ± 0.25 V	40mA	± 50 ppm min ± 100 ppm min	CFPV-42, -42I				
				CFPV-44, -44I				
>45.0 to 52.0MHz	± 25 ppm, ± 50 ppm	5V ± 0.25 V	40mA	± 50 ppm min	5ns	5ns	40/60%	CFPV-41, -41I
	± 100 ppm			± 100 ppm min				CFPV-43, -43I

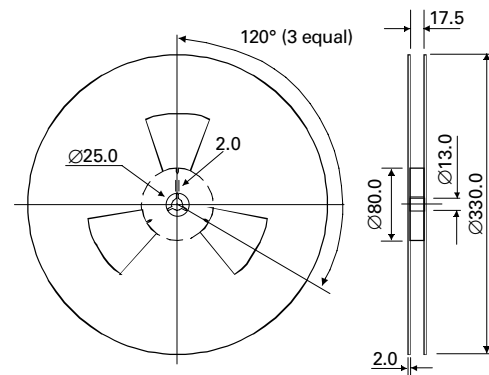
Ordering Example	13.0MHz	CFPV-43	I	B
Frequency	_____	_____	_____	_____
Model number	_____	_____	_____	_____
Operating Temperature Code: I = -40 to 85°C; Not applicable for -10 to 70°C	_____	_____	_____	_____
Frequency Stability: A = ± 25 ppm, B = ± 50 ppm, C = ± 100 ppm	_____	_____	_____	_____

**Note. For other frequencies / specifications please contact our sales office.
Some combinations of specification may not be available; please check with our sales office.**

Outline in mm - Tape



Outline in mm - Reel



SURFACE MOUNT
VCOs