

CFPO-5: Standard OCXO (for Stratum 3E and UMTS)

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Description

- SC Cut Standard OCXO (CFPO-5A)
- AT Cut Standard OCXO (CFPO-5B)

Package Outlines

- 26.0 x 36.0 x 19.0mm (36)
- 36.0 x 26.5 x 19.0mm with oven alarm (36A)
- 36.0 x 26.5 x 12.7mm (36B)

Supply Options

- Standard: 5V (5)
- Optional: 3.3V (3.3), 12V (12)

Standard Frequencies

- 8.1920, 10.0, 12.8, 13.0, 16.3840, 19.440, 20.0, 26.0, 38.4, 38.880MHz

Frequency Range

- 4.0960 to 38.88MHz

Power Consumption

- Warm up: $\leq 3.5W$
- @ 25°C: $\leq 1.8W$ (calm air)

Warm Up Time @25°C (typical)

- $\leq \pm 1 \times 10^{-7}$ after 5 minutes (calm air)

Output Compatibility

- Standard: HCMOS (C)
- Option: Sine (S) ≥ 0 dBm on 50W load

Frequency Stability Vs Supply Voltage Change ($\pm 5\%$) and Load Change (1 to 2 HCMOS)

- $\leq \pm 5 \times 10^{-9}$

Phase Noise @ 10.0MHz (CFPO-5 A1)

- 10Hz: ≤ -120 dBc/Hz
- 100Hz: ≤ -140 dBc/Hz
- 1kHz: ≤ -150 dBc/Hz
- 10kHz: ≤ -155 dBc/Hz

Frequency Control Linearity

- $\leq \pm 10\%$

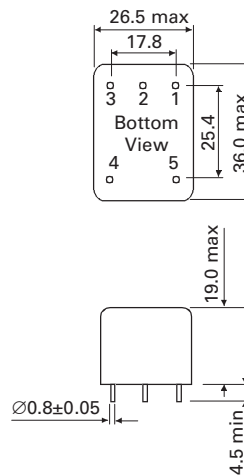
Environmental Specification (non-operating)

- Vibration: 10g for 10 to 500Hz
- Shock: 50g for 11ms
- Storage Temperature Range: -55 to 90°C

Marking Includes

- Model number (including options)
- Frequency
- Serial number
- Date code (Year/Week)

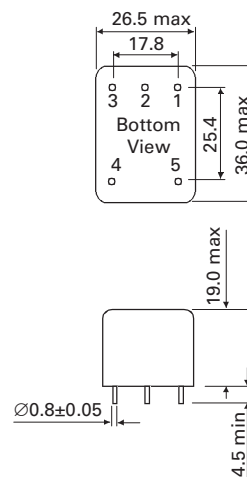
Outline in mm - Package 36



Pin	Function
1.	Input supply (+)
2.	Output reference voltage
3.	N/C
4.	Mechanical GND and (-) supply
5.	Output signal

All tolerances $\pm 0.2mm$

Outline in mm - Package 36A



Pin	Function
1.	Input supply (+)
2.	Output reference voltage
3.	N/C
4.	Mechanical ground and (-) supply
5.	Output signal

All tolerances $\pm 0.2mm$

OCXOs

Electrical Specification

Operating Temperature Range*	Stability within Temperature Range pk to pk	Long Term Stability @ 25°C after 30 days operation			Frequency Adjustment from 0V to Vref (**) (pk-pk)	Model Number	Package
		Per Day	Per Month	Per Year			
-10 to 70°C	$\leq 1 \times 10^{-8}$	$\leq 2 \times 10^{-10}$	$\leq 6 \times 10^{-9}$	$\leq 3 \times 10^{-8}$	$\geq 7 \times 10^{-7}$	CFPO-5 A1	36
		$\leq 3 \times 10^{-10}$	$\leq 1 \times 10^{-8}$	$\leq 5 \times 10^{-8}$	$\geq 7 \times 10^{-7}$	CFPO-5 A2	36A
	$\leq 2 \times 10^{-8}$	$\leq 5 \times 10^{-10}$	$\leq 2 \times 10^{-8}$	$\leq 1 \times 10^{-7}$	$\geq 2 \times 10^{-6}$	CFPO-5 A3	36
		$\leq 1 \times 10^{-9}$	$\leq 3 \times 10^{-8}$	$\leq 1.5 \times 10^{-7}$	$\geq 2 \times 10^{-6}$	CFPO-5 A4	
-10 to 70°C	$\leq 5 \times 10^{-8}$	$\leq 1 \times 10^{-9}$	$\leq 3 \times 10^{-8}$	$\leq 1.5 \times 10^{-7}$	$\geq 2 \times 10^{-6}$	CFPO-5 B1	or
		$\leq 2 \times 10^{-9}$	$\leq 6 \times 10^{-8}$	$\leq 3 \times 10^{-7}$	$\geq 4 \times 10^{-6}$	CFPO-5 B2	36A
	$\leq 1 \times 10^{-7}$	$\leq 1 \times 10^{-9}$	$\leq 3 \times 10^{-8}$	$\leq 1.5 \times 10^{-7}$	$\geq 2 \times 10^{-6}$	CFPO-5 B3	or
		$\leq 3 \times 10^{-9}$	$\leq 1 \times 10^{-7}$	$\leq 5 \times 10^{-7}$	$\geq 4 \times 10^{-6}$	CFPO-5B4	36B

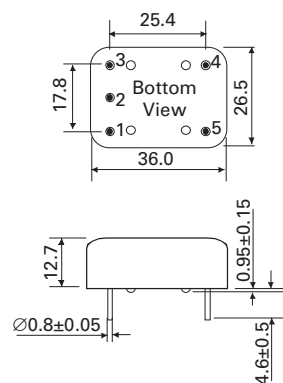
Ordering Example

Model _____
 Package Outline (36) (36A) (36B) _____
 Output Signal (C) (S) _____
 Supply Voltage (5) (12) (3.3) _____
 Oven Alarm Option (A) _____
 Frequency (MHz) _____

* Please note: Extended Operating Temperature Ranges may be available on request, please contact our sales office for further details.

** V Ref. Voltage reference +2.8V with 3.3V voltage supply
 +4V with +5V voltage supply
 +5V with +12V voltage supply

Outline in mm - Package 36B

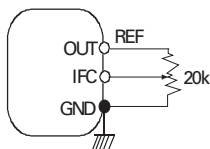


Pin	Function
1.	Input frequency control
2.	Output reference voltage
3.	Input supply (+)
4.	Output signal
5.	Mechanical GND and (-) supply

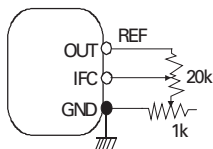
All tolerances ±0.2mm

External Frequency Adjustment

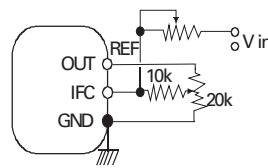
Manual freq. adjust.
 Settability $< 1 \times 10^{-8}$



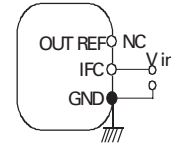
Fine manual freq. adjust.
 Settability $< 1 \times 10^{-10}$



Freq. control voltage and manual adjust



Ext. freq. control voltage



All potentiometers must be 10 turns type with temperature coefficient 50ppm/°C