

CFPO-6: Miniature OCXO

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Description

Miniature SC Cut OCXO (CFPO-6 A)

Miniature AT Cut OCXO (CFPO-6 B)

Package Outlines

- 25.4 x 25.4 x 12.7mm (25)
- 20.7 x 20.7 x 10.5mm (20)

Supply Option

- Standard: 5V (5)
- Optional: 3.3V (3.3) , 12.0V (12)

Standard Frequencies

- 10.0, 12.8, 13.0, 16.384, 19.440, 20.0, 26.0, 38.88MHz

Frequency Ranges

- 4.0960 to 26.0MHz (CFPO-6 A1, -B1)
- 8.0 to 38.880MHz (CFPO-6 A2, -B2)

Power Consumption

- Warm up: < 2.5W
- @ 25°C: ≤1.0W (calm air)

Warm Up Time @25°C (typical)

- ≤ ± 1 x 10⁻⁷ after 5 minutes (calm air)

Output Compatibility

- Standard: HCMOS (C)

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

- ≤ ± 5 x 10⁻⁸ (CFPO-6A, CFPO-6B)

Phase Noise @ 10.0MHz (CFPO-6A typical)

- 10Hz ≤ -120dBc/Hz
- 100Hz ≤ -140dBc/Hz
- 1kHz ≤ -145dBc/Hz
- 10kHz ≤ -150dBc/Hz

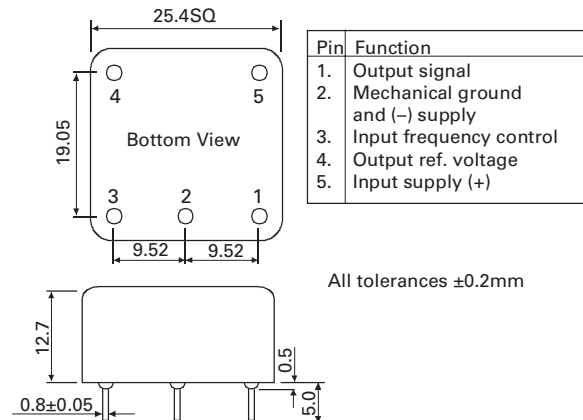
Environmental Specification (non-operating)

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

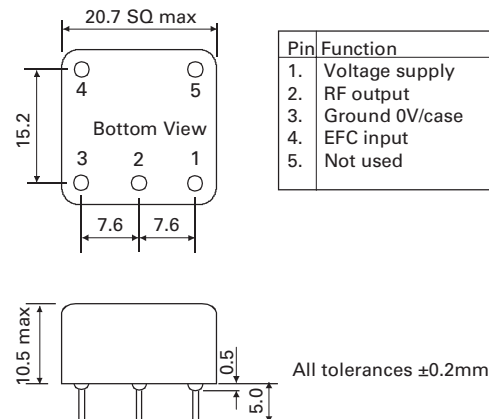
Marking Includes

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

Outline in mm - Package 25



Outline in mm - Package 20



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 (**)	Model Number	Package
		Per Day	Per Month	Per Year			
-20 to 70°C	$\leq 2 \times 10^{-8}$	$\leq \pm 1 \times 10^{-9}$	$\leq \pm 3 \times 10^{-8}$	$\leq \pm 1.5 \times 10^{-7}$	$\geq \pm 1 \times 10^{-6}$	CFPO-6 A1	25
-20 to 70°C	$\leq 5 \times 10^{-8}$	$\leq \pm 2 \times 10^{-9}$	$\leq \pm 5 \times 10^{-8}$	$\leq \pm 3 \times 10^{-7}$	$\geq \pm 1 \times 10^{-6}$	CFPO-6 A2	20 or 25
-20 to 70°C	$\leq 1 \times 10^{-7}$	$\leq \pm 1 \times 10^{-9}$	$\leq \pm 3 \times 10^{-8}$	$\leq \pm 1.5 \times 10^{-7}$	$\geq \pm 4 \times 10^{-6}$	CFPO-6 B1	
-20 to 70°C	$\leq 2 \times 10^{-7}$	$\leq \pm 3 \times 10^{-9}$	$\leq \pm 8 \times 10^{-8}$	$\leq \pm 5 \times 10^{-7}$	$\geq \pm 4 \times 10^{-6}$	CFPO-6 B2	

Ordering Example

Model _____

Package Outline (25) (20) _____

Output Signal (C) _____

Supply Voltage (5) (3.3) (12) _____

Frequency (MHz) _____

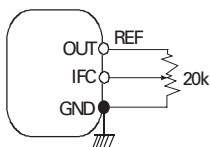
CFPO-6 A2 25-C 3.3 10MHz

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

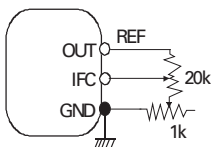
** Voltage Reference +5.0V with +12V power supply
+4.0V with +5V power supply
+2.8V with +3.3V power supply

External Frequency Adjustment

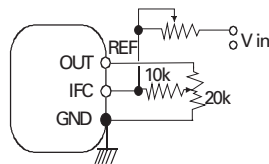
Manual freq. adjust.
Settability $< 1 \times 10^{-8}$



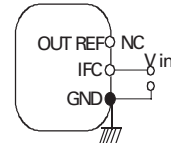
Fine manual freq. adjust.
Settability $< 1 \times 10^{-10}$



Freq. control voltage and manual adjust



Ext. freq. control voltage



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