



44 avenue de la Glacière - BP 165
95105 ARGENTEUIL CEDEX - FRANCE

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CRYSTAL OSCILLATOR SPECIFICATION

Reference

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STP 2145 A

Date

Visa

20 Nov.00

Claude
Trialoup

OCXO TYPE : CFPO 1 H1 50B 12

(*) Measured once a month for production follow-up

(**) Measured randomly on 10 % of the manufactured devices

- Creation 13 Nov.00

A Short term 100s

- 1./ Nominal Frequency (Fo) : 10.0 MHz
- 2./ Supply Voltage : + 12 V $\pm$ 5 %
 - 2.1./ Current during warm-up time : $\leq$ 700 mA (**)
 - 2.2./ Current under steady state at 25°C : $\leq$ 200 mA (**)
- 3./ Sinewave Output Signal Level :
 - 3.1/ Level with 50 ohms load : $\geq$ + 3 dBm
 - 3.2/ Harmonics : $\leq$ - 40 dBc (*)
- 4./ Temperature range : from - 10°C to +70°C
- 5./ Frequency stability
 - 5.1./ ageing per Day (measured before shipment) : $\leq$ $\pm 7 \times 10^{-11}$
 - 5.2./ ageing per Month (average over next 30 days) : $\leq$ $\pm 2 \times 10^{-9}$
 - 5.3./ ageing per year (extrapolation beyond last measures) $\leq$ $\pm 1.5 \times 10^{-8}$
 - 5.4./ holdover 24 hours within 0°C / + 70°C (after stabilisation): $\leq 8 \mu s$ (*)
frequency recovery & 2 h @ +25°C / 3 h @ + 70°C / 3 h @ 0°C / 2 h @ + 25°C
gradient of 10°C / hour between each temperature stage
 - 5.5./ versus Supply Voltage + 12V +/- 5%
and charge(50 ohms +/-10%) : $\leq$ $\pm 1 \times 10^{-10}$ (*)
 - 5.6./ within Temperature range : $\leq$ $\pm 1 \times 10^{-10}$ (**)
 - 5.7./ warm-up time to within $\pm 1 \times 10^{-8}$ of final frequency: < 15 minutes (*)
 - 5.8./ retrace after stabilisation / 24h off and 60mn on : $\leq$ $\pm 5 \times 10^{-9}$ (*)
 - 5.9./ short term stability / Allan standard deviation 100s : $\leq$ 5×10^{-12} (*)
- 6./ Phase noise (*)
 - 6.1./ @ 10 Hz offset from the carrier : $\leq$ - 130 dBc/Hz
 - 6 2./ @ 1 KHz : $\leq$ - 150 dBc/Hz
- 7./ Frequency adjustment from 0 to 10V / positive slope : $\geq$ $\pm 3.5 \times 10^{-7}$
(from adjustment) : $\leq$ $\pm 4.5 \times 10^{-7}$
Linearity : $\leq$ $\pm 10\%$ (*)
- 8./ Environmental conditions (only for qualification)
 - 8.1./ Storage temperature range : - 55°C to + 90°C
 - 8.2./ Shocks 50 g - 11 ms - 1/2 sine IEC 68-2-27 Test Ea - Severity 50A
 - 8.3./ Vibrations 10 g ; 10 - 500 Hz IEC 68-2-06 Test Fc-Severity 500/10

A



Frequency Products

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9./ Marking (for series)

C-MAC Part Number

Nominal Frequency in MHz

Serial Number (Letter + 5 numbers)

Date code (2 digits for year / 2 digits for week)

: Chongho Logo

: STP2145

: Fo : 10 MHz

: N° : L12345

: Date Code yyww

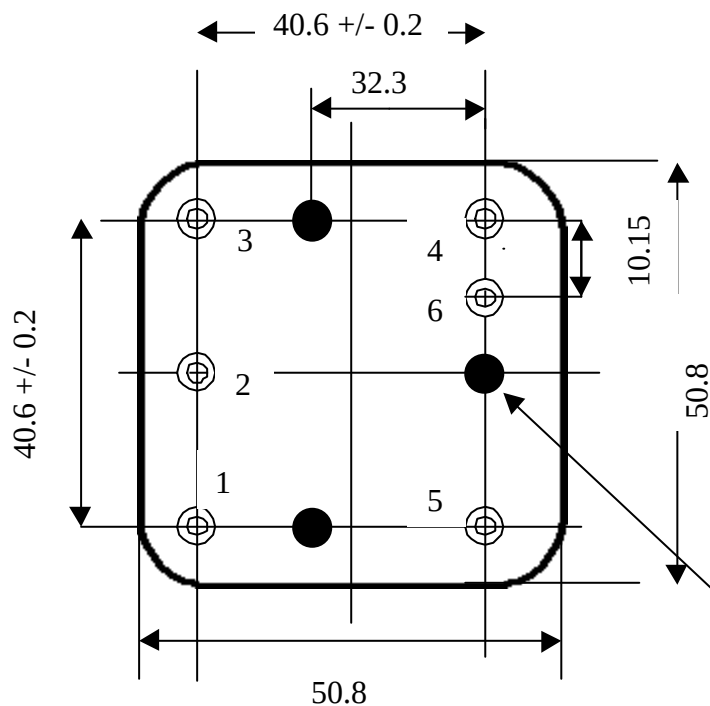
10./ Package type

Size

: 50 B / solder sealed

: 2.0" x 2.0" x 1.5"

50.8 x 50.8 x 38.1 mm



BOTTOM VIEW

- 1 Input Frequency Control
- 2 Reference Voltage (+ 8 V)
- 3 Output Signal (Sine)
- 4 Ground (0 V and case)
- 5 Input Supply (+ 12 V)
- 6 Oven Alarm

3 screws M3

6.5 +/- 0.5 Ø 1