

# STP 2270 STRATUM 3E OCXO

ISSUE A ; 21 APRIL 2005

## Description

- Miniature SC cut OCXO (CFPO-6 A2)

## Package Outline 25

- 25.4 x 25.4 x 12.7mm

## Nominal Frequency

- 12.8MHz
- Initial accuracy at delivery: @+25°C  $\leq \pm 1.0 \times 10^{-6}$

## Supply Voltage

- $\pm 3.3V \pm 5\%$
- Power consumption during warm up  $\leq 3.5W$
- Under steady state @25°C / calm air  $\leq 1.5W$

## Warm Up Time

- @25°C within  $\pm 1 \times 10^{-7}$  of final frequency with reference after 24 hours on:  $\leq 5$  min (typ.2 min)

## Output Compatibility

- HCMOS output signal into 10kΩ // 15pF load
- Voh /Vol  $> +2.4V / \leq +0.4V$
- Duty Cycle@ 50% output signal level 50±10%
- Rise and Fall times (between 10% & 90%) 5ns /15pF load

- Frequency Stability versus Operating conditions**
- Within operating temperature range 0 to 70°C :  $\leq \pm 10 \times 10^{-9}$
  - Versus Supply Voltage 3.3V  $\pm 5\%$  :  $\pm 5 \times 10^{-9}$
  - Versus Load Changes (from 1 to 2 HCMOS loads) :  $\leq \pm 5 \times 10^{-9}$

## Ageing

- per day (measured before shipment) :  $\leq 1.0 \times 10^{-9}$
- per year (extrapolation after 30 days of operation) :  $\leq \pm 1.5 \times 10^{-7}$
- over lifetime (extrapolation over 20 years):  $\leq \pm 2.0 \times 10^{-6}$
- short term (Allan standard deviation 1s/ 100 samples): typical  $\pm 1.0 \times 10^{-11}$

## Phase Noise (Typical figures)

- 1Hz: -82dBc/Hz
- 10Hz: -112dBc/Hz
- 100Hz: -135dBc/Hz
- 1kHz: -145dBc/Hz
- 10kHz and beyond: -150dBc/Hz
- Spurious: -80dBc/Hz

## Environmental Conditions (non-operating)

- Storage Temperature Range: -55 to 90°C
- Shocks 50g: 11ms - 1/2 sine IEC 68-2-27 Test Ea/ Severity 50A
- Vibrations 10g: 10-500Mhz IEC 68-2-06 Test Fc / Severity 500/10

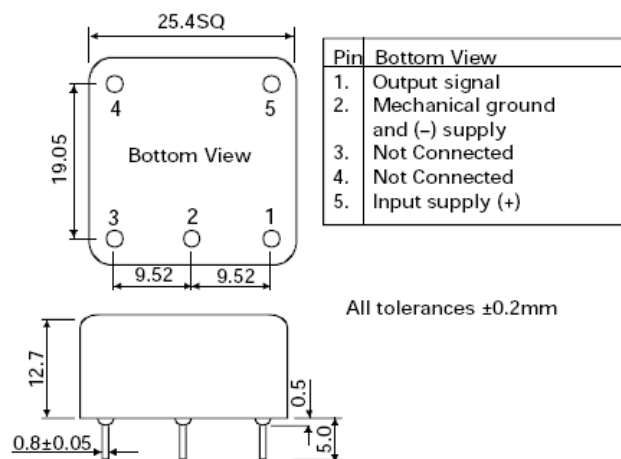
## Documentation

- Table of results associated to prototypes (if ordered)
- Certificate of Conformance for Series production
- Measurement and data over a period of 2 years from shipment

## Marking

- Manufacturer's Name: RAKON
- Part Number (for Series): STP 2270
- Nominal Frequency: 12.8MHz
- Serial Number (6 digits = 1 letter + 5 numerals)
- Manufacturing Date Code (4 digits = 2 for year + 2 for week)-YYWW

## Outline in mm



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