

# Provisional Oscillator Specification: E6035LF Issue A, 6<sup>th</sup> August 2012

### **Outline:**

<u>Pad</u>	<u>Function</u>
1	Control Voltage, Vc
2	GND

Output 3

Supply Voltage, Vs 4

### Marking: to include:

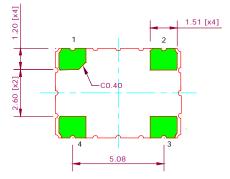
Manufacturers ID (R)

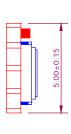
Manufacturing identifier (X XX) Pad 1 / Static Sensitivity Identifier (Δ) Abbreviated Part Number (6035) Oscillator's Date of Manufacture (YW)



Note sample marking may vary.







#### **Electrical:**

Nominal Frequency, Fo Supply Voltage, Vs Input Current

Output:

Type Load

Level

Frequency Stability

Temperature, -40 to 85°C

Calibration Tolerance at 25°C, Vc=1.65V

Supply Voltage, ± 5%

Load, ± 10%

Reflow soldering (after 2 times reflow)

Ageing, 10 years

Drift (at constant temperature) All causes stability, 20 years

Voltage Control:

Nominal control voltage Control Voltage Range

Slope

Input impedance Pulling range

Linearity

Modulation bandwidth

19.2 MHz  $3.3 V \pm 5\%$ 

≤ 2.5 mA

Clipped Sinewave, AC coupled

10kΩ // 10 pF  $\geq$  0.8V pk-pk

 $\leq$  ± 0.14 ppm reference (F<sub>MAX</sub>+F<sub>MIN</sub>)/2

≤ ± 1.0 ppm reference Fo

 $\leq$  ± 0.1 ppm reference to frequency at 3.3V

 $\leq$  ± 0.1 ppm reference to freq. at 10k $\Omega$  // 10 pF

 $\leq$  ± 1.5 ppm

 $\leq$  ± 3.0 ppm

≤ ± 0.04 ppm / day

 $\leq$  ± 4.6 ppm

1.65V

0V to 3.3V

Positive

≥ 100 kΩ

 $\geq$  ± 5.0 ppm,  $\leq$  ± 15.0 ppm

≤ 10%

≥ 2kHz



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Phase Noise (typ.)

10 Hz-95 dBc/Hz100 Hz-115 dBc/Hz1 kHz-132 dBc/Hz10 kHz-140 dBc/Hz100 kHz-142 dBc/Hz

#### **Environmental:**

Operable temperature range: -40 to 85°C

Storage Temperature Range: -55 to 125°C

Vibration: IEC 60068-2-6 Test Fc, 10-60Hz 1.5mm displacement, at 98.1 ms<sup>-2</sup>,

30 minutes in each of three mutually perpendicular axes at 1 octave per minute

Shock: IEC 60068-2-27 Test Ea, 980ms<sup>-2</sup> acceleration for 6ms duration, 3 shocks in each

direction along three mutually perpendicular axes

Soldering: SMD product suitable for Convection Reflow soldering.

Peak temperature 260°C. Maximum time above 220°C, 60 secs.

Solderability: MIL-STD-202, Method 208, Category 3

Marking: Laser Marked

RoHS: Parts are fully compliant with the European Union directive 2002/95/EC on the restriction

of the use of certain hazardous substances in electrical and electronic equipment. Note the RoHS compliant parts are suitable for assembly using both Lead-free solders and Tin

/ Lead solders.

<sup>&</sup>quot;Samples supplied according to this specification are supplied from our development or pre-production programme and as such are not qualification approved products. No condition, warranty or representation regarding quality, suitability, performance, life or continuation of supply is given or implied and Guarantee in clause 6.1 of our standard Conditions of Sale is not applicable. The right is reserved to change the design or specification or cease supply without notice." RAKON UK Limited