



ISSUE 2; June 2012 - RoHS 2011/65/EU

Description

- LVDS output MEMS oscillator in a plastic package
- Factory programmable for a fast lead time
- For higher frequencies up to 800MHz contact our sales team

Frequency Range

- Frequency 1.0 to 220.0 MHz

Supply Voltage

- Voltage 2.5V ±10%

Ageing

- Ageing ±1ppm typ in 1st year at 25°C

Output Compatibility & Load

- Output Compatibility LVDS
- Drive Capability 100Ω

Frequency Stabilities

- Frequency Stability ±10ppm, ±15ppm, ±50ppm
(inclusive of supply voltage and output load variations over the operating temperature range)

Operating Temperature Ranges

- 0 to 70°C
- -20 to 70°C
- -40 to 85°C

Output Details

- Differential Output Voltage: 0.25V min, 0.35V typ
- Offset Voltage: 1.2V typ

Output Control

- ST - Logic '1' to pad 1 (≥70%VS) enables oscillator output
Logic '0' to pad 1 (≤30%VS) disables oscillator output; when disabled the oscillator output goes to the high impedance state, oscillation stops
No connection to pad 1 enables oscillator output
Standby Current: 15µA typical @2.5V
- TS - Logic '1' to pad 1 (≥70%VS) enables oscillator output
Logic '0' to pad 1 (≤30%VS) disables oscillator output; when disabled the oscillator output goes to the high impedance state
No connection to pad 1 enables oscillator output

Noise Parameter

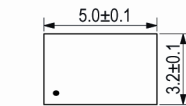
- RMS Period Jitter @ 200MHz: 2.4ps typ @ 2.5V
- RMS Phase Jitter @ 200MHz, BW 1MHz to 20MHz: 0.7ps typ

Environmental Parameters

- Storage Temperature Range: -65 to 150°C
- Shock: MIL-STD-883F, Method 2002
- Vibration: MIL-STD-883F, Method 2007
- Temperature Cycle: MIL-STD-883F, Method 1010
- Solderability: MIL-STD-883F, Method 2003
- MSL: Level 1

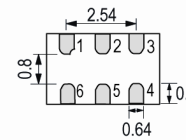
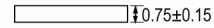


Outline (mm)



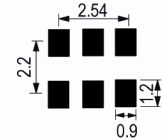
Pad Connections

1. TS / ST
2. N/C
3. GND
4. Output +
5. Output -
6. +Vs

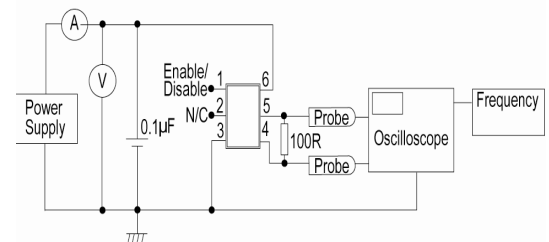


Underside View

Solder Pad Layout



Test Circuit



Sales Office Contact Details:

UK: +44 (0)1460 270200
Germany: +49 (0)7264 9145-0

France: +33 (0)5 34 50 91 18
USA: +1 (0) 650 798 5047

Email: info@iqdfrequencyproducts.com
Web: www.iqdfrequencyproducts.com



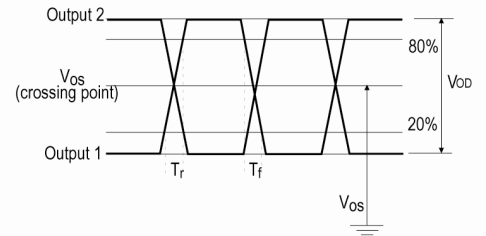
Ordering Information (*minimum required)

- Frequency*
- Model*
- Output Compatibility
- Frequency Stability (over operating temperature range)*
- Operating Temperature Range*
- Supply Voltage
- TS/ST Option*
- Example
- 40.0MHz IQMS-952
- LVDS ±25ppm -40 to 85C 2.5V ST

Packing Details

- Pack Style: **Bulk** Loose in bulk pack
- Pack Size 100
- Pack Style: **Reel** Tape and reel in accordance with EIA-481-D
- Pack Size 1,000
- Alternative packing options available

Wave Form



Electrical Specification - maximum limiting values 2.5V ±10%

| Frequency Range | Temp Range | Stability Inclusive | | Current Draw | Rise & Fall (20 to 80%) | Duty Cycle % |
|-----------------|-------------|---------------------|--------|--------------|-------------------------|--------------|
| | | Min | Max | | | |
| 1.0 to 220.0MHz | 0 to 70°C | ±10ppm | ±50ppm | 76.0mA | 325ps | 45/55% |
| | -20 to 70°C | ±15ppm | ±50ppm | 76.0mA | 325ps | 45/55% |
| | -40 to 85°C | ±15ppm | ±50ppm | 76.0mA | 325ps | 45/55% |

This document was correct at the time of printing; please contact your local sales office for the latest version

Sales Office Contact Details:

UK: +44 (0)1460 270200
Germany: +49 (0)7264 9145-0

France: +33 (0)5 34 50 91 18
USA: +1 (0) 650 798 5047

Email: info@iqdfrequencyproducts.com
Web: www.iqdfrequencyproducts.com