



ISSUE 3; June 2012 - RoHS 2011/65/EU



Description

- LVPECL output low jitter MEMS oscillator in a plastic package
- Factory programmable for a fast lead time
- For 220 to 800MHz contact our sales team

Frequency Range

- Frequency 1.0 to 220.0 MHz

Supply Voltage

- Voltage 2.5V ±10%

Ageing

- Ageing ±1ppm max in 1st year at 25C

Output Compatibility & Load

- Output Compatibility LVPECL
- Drive Capability 50Ω terminated to VS - 2.0V

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

- Output Level 0.8V pk-pk typical

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
- 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

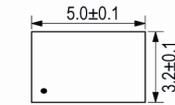
- RMS Period Jitter @ 200MHz : 1.3ps typical
- RMS Phase Jitter @ 200MHz, BW 1MHz to 20MHz : 0.7ps typical

Environmental Parameters

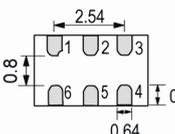
- Shock: MIL-STD-883F, Method 2002
- Vibration: MIL-STD-883F, Method 2007
- Temperature Cycle: MIL-STD-883F, Method 1010
- Solderability: MIL-STD-883F, Method 2003
- MSL level 1
- Storage Temperature Range: -65 to 150°C



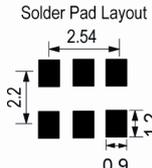
Outline (mm)



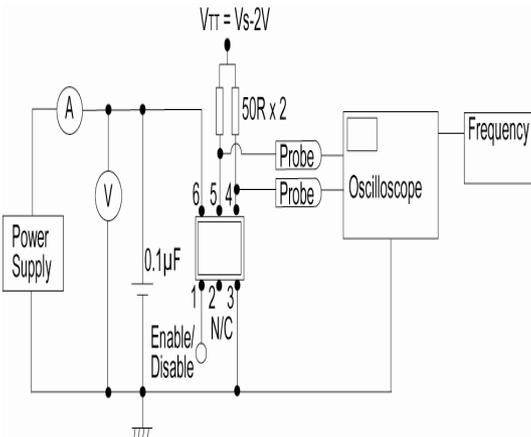
- Pad Connections
1. TS / ST
 2. N/C
 3. GND
 4. Output +
 5. Output -
 6. +VS



Underside View



Test Circuit



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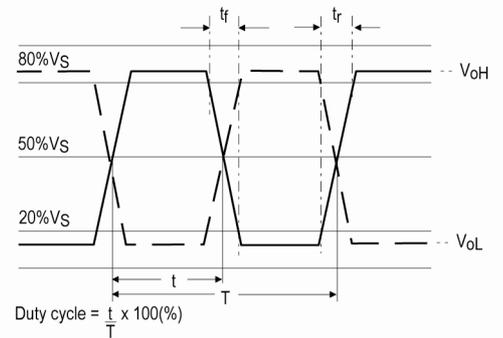
Ordering Information (*minimum required)

- Frequency*
- Model*
- Output Compatibility
- Frequency Stability (over operating temperature range)*
- Operating Temperature Range*
- Supply Voltage
- TS/ST Option*
- Example
- 40.00MHz IQMS-912
- LVPECL ±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 (10 to 90%)	Duty Cycle %
		Min	Max			
1.0 to 220.0MHz	0 to 70°C	±10ppm	±50ppm	71.0mA	300ps	45/55%
	-20 to 70°C	±15ppm	±50ppm	71.0mA	300ps	45/55%
	-40 to 85°C	±15ppm	±50ppm	71.0mA	300ps	45/55%

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

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