



Description

- LVPECL output using a high frequency fundamental crystal to give very low jitter
- Ceramic package with a seam sealed metal lid, hermetically sealed

Model IQXO-621

Model Issue number 2

Frequency Parameters

- Frequency 77.760MHz
- Frequency Tolerance @ 25°C INCLUSIVE
- Frequency Stability $\pm 50.00\text{ppm}$
- Operating Temperature Range -40.00 to 85.00°C
- Ageing $\pm 3\text{ppm max per year @ 25°C}$

Electrical Parameters

- Supply Voltage 2.5V
- Supply Voltage Tolerance $\pm 5\%$
- Current Draw 60mA max

Output Details

- Output Compatibility LVPECL
- Output Load 50Ω terminated to $V_S - 2.0V$
- Rise and Fall time (10% - 90%) 1.0ns max
- Duty Cycle 45/55%
- Standby Operation:
Logic '1' (70% V_S min) to pad 1 enables oscillator output
Logic '0' (30% V_S max) to pad 1 disables oscillator output; the oscillator output goes to the high impedance state
No connection to pad 1 enables oscillator output
Standby Current 10μA max

Output Levels

- Output Voltage:
'0' Level (VoL), +1.095V max
'1' Level (VoH), +1.475V min

Noise Parameters

- Phase Jitter (12kHz to 20MHz): 1ps rms max

Environmental Parameters

- Shock: MIL-STD-202, Method 213, Condition E: 1000G, 0.5ms, 1/2 sine wave
- Vibration: MIL-STD-883, Method 2007, Condition A: 20G
- Storage Temperature Range: -55 to 125°C

Compliance

- RoHS Status Compliant
- REACH Status Compliant

Packaging

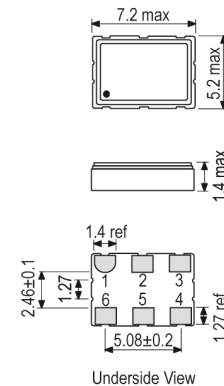
- Pack Type: Reel Tape and reel in accordance with EIA-481-D
- Pack Size 1,000

- Alternative packing option available

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



Outline (mm)

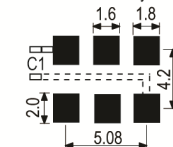


Pad Connections

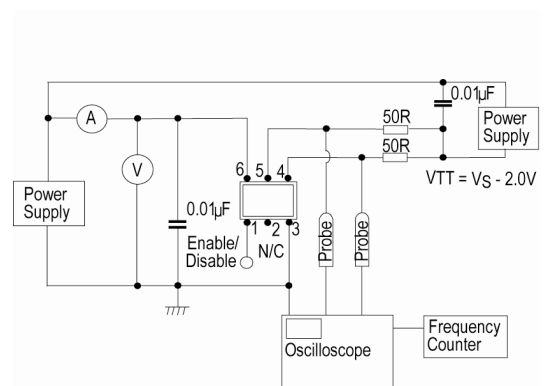
- Standby Operation
- N/C
- GND
- Output 1
- Output 2
- +Vs

Note: a 0.01μF or 0.1μF capacitor C1 is recommended between GND & +Vs

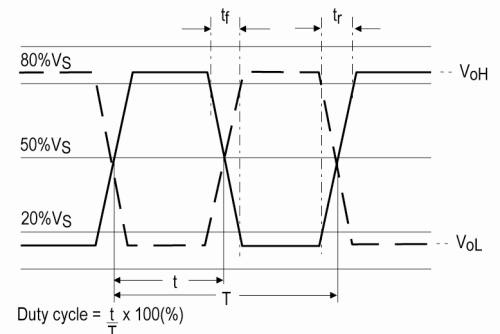
Solder Pad Layout



Test Circuit



Wave Form



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