

ISSUE 2; July 2014 - RoHS 2011/65/EU
Description

- LVPECL output using a high frequency fundamental crystal to give very low jitter
Ceramic package with a seam sealed metal lid, hermetically sealed
Replacement for the CFPS-34 package
For higher frequencies please see our IQXO-690


Frequency Parameters

- Frequency 25.0MHz to 212.5MHz
- Frequency Stability $\pm 25.00\text{ppm}$ to $\pm 100.00\text{ppm}$
- Ageing $\pm 3\text{ppm}$ max per year @ 25°C

Electrical Parameters

- Supply Voltage 3.3V $\pm 10\%$

Operating Temperature Ranges

- 10 to 70°C
- 40 to 85°C

Output Details

- Output Compatibility LVPECL
- Drive Capability 50Ω terminated to $V_S - 2.0V$
- 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 (V_{OL}), +1.680V max
'1' Level (V_{OH}), +2.275V min

Noise Parameters

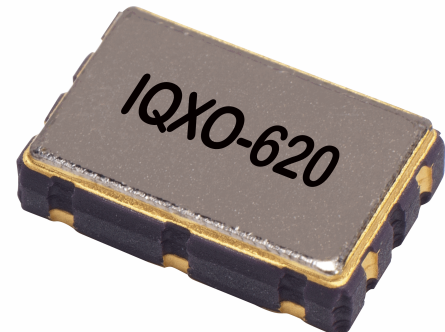
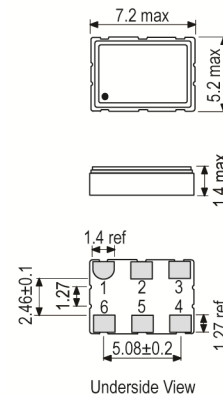
- Phase Jitter (12kHz to 20MHz): 1ps rms max

Environmental Parameters

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

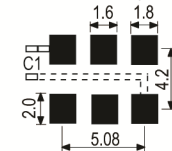
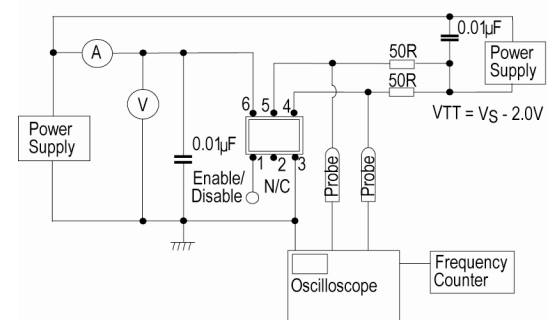
Ordering Information

- Frequency*
- Model*
- Output
- Frequency Stability*
- Operating Temperature Range*
- Supply Voltage
(*minimum required)
- Example
100.0MHz IQXO-620
LVPECL $\pm 50\text{ppm}$ -10 to 70C 3.3V


Outline (mm)


Pad Connections
 1. Standby Operation
 2. N/C
 3. GND
 4. Output 1
 5. Output 2
 6. +Vs

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

Solder Pad Layout

Test Circuit

Sales Office Contact Details:

UK: +44 (0)1460 270200
 Germany: +49 (0) 30 408 192 300

France: +33 (0)5 34 50 91 18
 USA: +1 408.273.4530

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



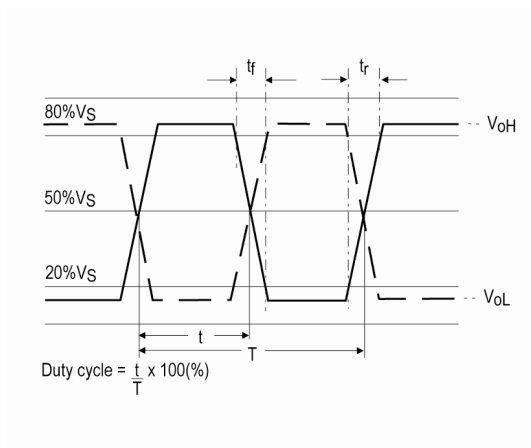
Compliance

- RoHS Status Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

Packaging Details

- Pack Style: Bulk Loose in bulk pack
 Pack Size: 100
- Pack Style: Reel Tape & reel in accordance with EIA-481-D
 Pack Size: 1,000
- Pack Style: Cutt Cut tape
 Pack Size: 1

Wave Form



Electrical Specification - maximum limiting values 3.3V ±10%

Frequency Min	Frequency Max	Temperature Range	Stability (min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
25.0MHz	99.999999MHz	-10 to 70	±25.0	60	1	45/55
		-40 to 85	±25.0	60	1	45/55
100.0MHz	159.999999MHz	-10 to 70	±25.0	65	0.5	45/55
		-40 to 85	±25.0	65	0.5	45/55
160.0MHz	212.5MHz	-10 to 70	±25.0	75	0.4	45/55
		-40 to 85	±25.0	75	0.4	45/55

*This document was correct at the time of printing; please contact your local sales office for the latest version.
[Click to view latest version on our website.](#)*

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