

ISSUE 7; March 2022

Description

- LVDS output crystal oscillator using PLL technology to give a very wide frequency range. Ceramic package with a seam sealed metal lid, hermetically sealed. For a very low jitter version of this package please see our IQXO-660



Frequency Parameters

- Frequency 160.0MHz to 800.0MHz
- Frequency Stability $\pm 25.00\text{ppm}$ to $\pm 100.00\text{ppm}$
- Ageing $\pm 3\text{ppm}$ max per year @ 25°C
- Frequency stability: inclusive of tolerance @ 25°C $\pm 3^\circ\text{C}$ & operating temperature range.

Electrical Parameters

- Supply Voltage 3.3V $\pm 5\%$

Operating Temperature Ranges

- -10 to 70°C
- -40 to 85°C

Output Details

- Output Compatibility LVDS
- Drive Capability 100 Ω
- Differential Output Voltage (VOD) 0.33V typ
- Offset Voltage (VOS) 1.25V typ
- Output Voltage High (VOH) 1.6V max
- Output Voltage Low (VOL) 0.9V min

Output Control

- Logic '1' to pad 1 ($\geq 70\%V_s$) disables oscillator outputs; oscillator outputs go to the high impedance state
- Logic '0' to pad 1 ($\leq 30\%V_s$) enables oscillator outputs
- No connection to pad 1 enables oscillator outputs

Noise Parameters

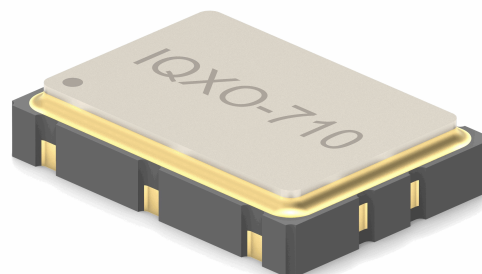
- Phase Jitter (12kHz to 20MHz): 2ps RMS max

Environmental Parameters

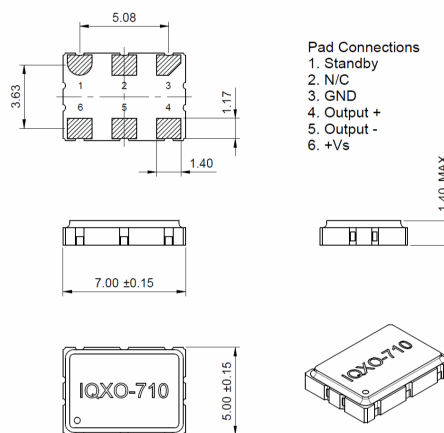
- Shock: MIL-STD-202, Method 213, Condition E
- Vibration: MIL-STD-883, Method 2007, Condition A
- Storage Temperature Range: -55 to 125°C

Ordering Information

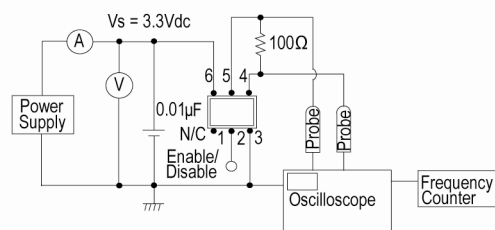
- Frequency*
Model*
Output
Frequency Stability*
Operating Temperature Range*
Supply Voltage
- Example:
200.0MHz IQXO-710
LVDS $\pm 50\text{ppm}$ -10 to 70C 3.3V



Outline (mm)



Test Circuit



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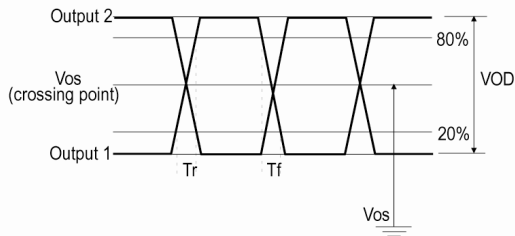
Compliance

- RoHS Status (2015/863/EU) 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

Wave Form



Electrical Specification - maximum limiting values 3.3V ±5%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
160.0MHz	800.0MHz	-10 to 70	±25.0	50	0.5	45/55%
		-40 to 85	±25.0	50	0.5	45/55%

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