

SIMPLE PACKAGED CRYSTAL OSCILLATOR



Part Number: **8302100293** | IQXO-791

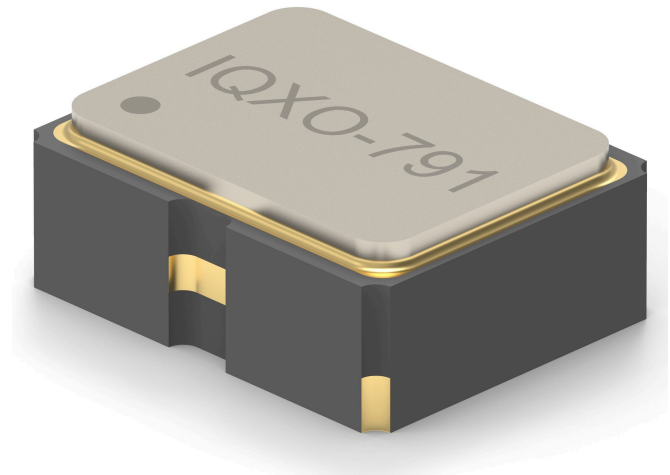
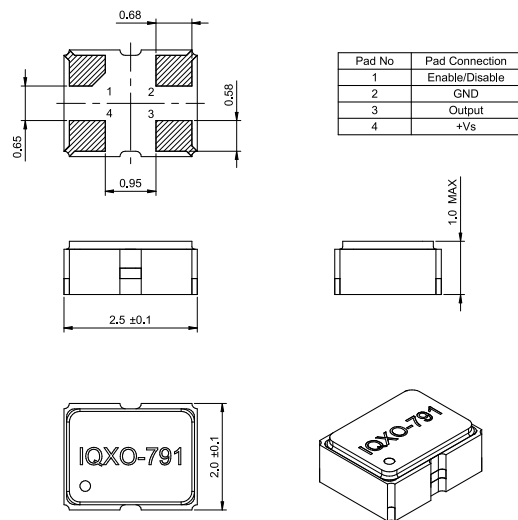
AKA Number: LFSPXO100293



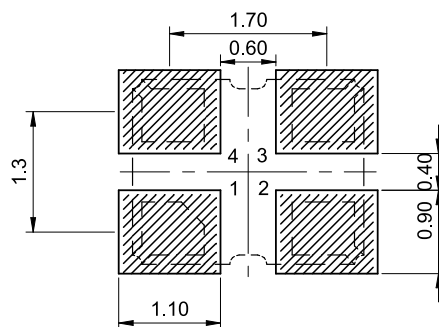
General Information

Standard 2.5 x 2.0 mm oscillator in a ceramic package with a hermetically sealed metal lid.

Dimensions [mm]



Recommended Land Pattern [mm]



Frequency Parameters

| | |
|-----------------------|---------------------------------|
| Frequency | 27.0 MHz |
| Frequency Tolerance | INCLUSIVE |
| Frequency Stability | ± 50 ppm |
| Operating Temperature | -40 °C to 125 °C |
| Ageing | ± 5 ppm max. first year @ 25 °C |

Electrical Parameters

| | |
|---------------------|--------------|
| Supply Voltage | 3.3 V ± 10 % |
| Current Consumption | 25 mA max. |
| Rise Time t_r | 7 ns max. |
| Fall Time t_f | 7 ns max. |
| Duty Cycle | 40/60 % |

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Output Details

Output Compatibility CMOS

- Drive Capability: 15 pF
- Output Voltage Levels:
 - Output Low (VoL): 10 % Vs max
 - Output High (VoH): 90 % Vs min.
- Start Up Time: (0.7 ms typ to 90 % of final amplitude (under ideal conditions @ 25 °C)): 10 ms max.

Output Control

- Standby Operation:
 - Logic '1' ($\geq 70\%$ Vs) to pad 1 enables oscillator output.
 - Logic '0' ($\leq 30\%$ Vs) to pad 1 disables oscillator output; when disabled the oscillator output goes to the high impedance state.
 - No connection to pad 1 enables oscillator output.
- Standby Current:
 - 1.0 μ A typ. @ 25 °C
 - 10 μ A max.

Material Parameters

Moisture Sensitivity Level (MSL) 1

Manufacturing Details

Reflow: 260 °C max. for 10 seconds max.

Company Address

IQD Frequency Products Ltd.
Station Road
Crewkerne
Somerset
TA18 8AR, United Kingdom

Noise Parameters

- Period Jitter (pk-pk): ± 80 ps typ.
- Period Jitter (1 σ): ± 10 ps typ.
- RMS Phase Jitter (12 kHz to 20 MHz): 1 ps rms max

Environmental Parameters

Storage Temperature Range: -55 °C to 125 °C

- Shock: Half Sine shock pulse with peak acceleration 500 g; Pulse duration: 0.3 ms
- Vibration: MIL-STD-202 Method 204. 5 g for 20 minutes, 12 cycles in each of the 3 orientations, 10 ~ 2000 Hz. As per Table 11 of AEC-Q200.

Technical Standards

RoHS Status 2015/863/EU - Compliant
REACH Status (EC)1907/2006 - Compliant

Packaging Details

Packaging SPQ Tape & Reel 3000 pcs

Tape & reel in accordance with EIA-481D
Quantities below the standard reel size to be supplied on cut tape.