

SIMPLE PACKAGED CRYSTAL OSCILLATOR

Part Number: **831066658** | IQXO-794

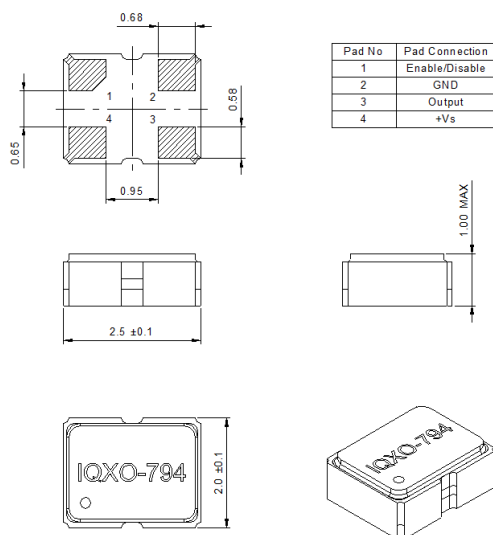
AKA Number: LFSPX0066658



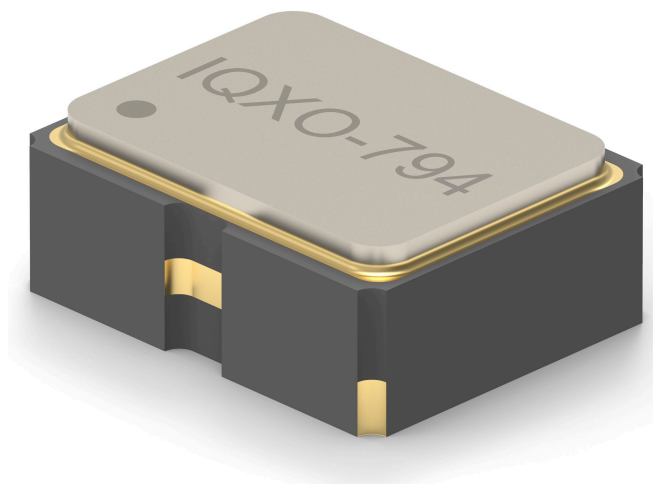
General Information

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

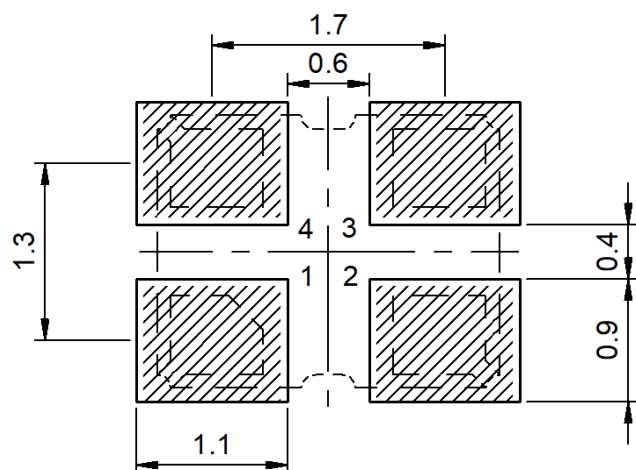
Dimensions [mm]



Pad No	Pad Connection
1	Enable/Disable
2	GND
3	Output
4	+Vs



Recommended Land Pattern [mm]



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Frequency Parameters

Frequency	16.0 MHz
Frequency Tolerance	INCLUSIVE
Frequency Stability	± 50 ppm
Operating Temperature	-40 °C to 85 °C
Ageing	± 5 ppm per year

Output Details

Output Compatibility CMOS

- Start Up Time:
0.9ms typ to 90% of final amplitude (under ideal conditions @25 °C)
10ms max
- Output Voltage Levels:
Output Low (VoL): 10% Vs max
Output High (VoH): 90% Vs min

Output Control

- Enable/Disable:
Logic '1' (≥70% Vs) to pad 1 enables oscillator output.
Logic '0' (≤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:
0.5µA typ @25 °C
10µA max

Material Parameters

Moisture Sensitivity Level (MSL) Not Applicable

Manufacturing Details

260 °C max for 10 seconds max

Company Address

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

Electrical Parameters

Supply Voltage	1.8 V ± 10 %
Load Capacitance C_L	Series Resonant
Current Consumption	10 mA max.
Rise Time t_r	7 ns max.
Fall Time t_f	7 ns max.
Duty Cycle	40/60 %

Noise Parameters

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

Environmental Parameters

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

- Shock: Half Sine shock pulse with peak acceleration 500g; Pulse duration: 0.3ms
- Vibration: MIL-STD-202 Method 204. 5g 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	