

SIMPLE PACKAGED CRYSTAL OSCILLATOR

Part Number: 8302100271 | IQXO-540

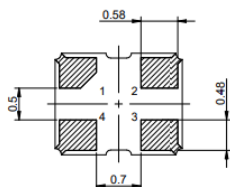
AKA Number: LFSPXO100271



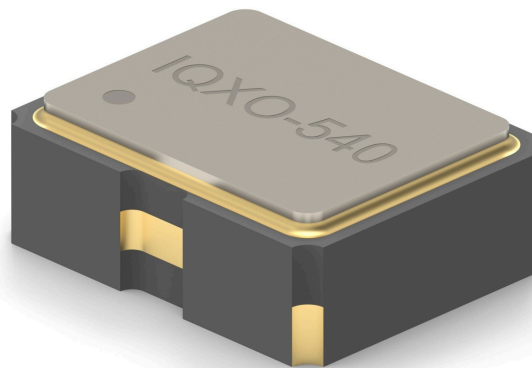
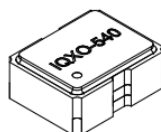
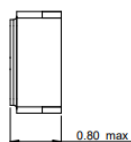
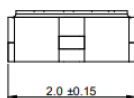
General Information

Standard 2.0 x 1.6 mm crystal oscillator in a hermetically sealed ceramic package with a seam sealed metal lid.

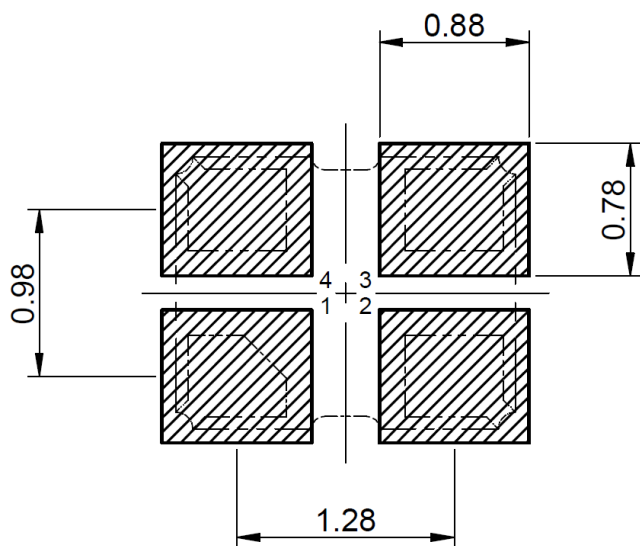
Dimensions [mm]



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



Recommended Land Pattern [mm]



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Frequency Parameters

Frequency	12.0 MHz
Frequency Tolerance	INCLUSIVE
Frequency Stability	± 50 ppm
Operating Temperature	-40 °C to 125 °C
Ageing	± 5 ppm max. per year @ 25 °C
Inclusive of tolerance, supply voltage and load variations over the operating temperature range.	

Output Details

Output Compatibility	CMOS
Drive Capability	15 pF max.
Start up time: 10 ms max, 0.7 ms typ. to 90 % of final amplitude (under ideal conditions @ 25 °C).	
Output High (VoH): 90 % of Vs min	
Output Low (VoL): 10 % of Vs max	

Output Control

- Standby Operation:
 - 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: 10 µA max, 1.0 µA typ @ 25 °C

Material Parameters

Termination Finish	Au Ni
Moisture Sensitivity Level (MSL)	Not Applicable

Manufacturing Details

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

Electrical Parameters

Supply Voltage	3.3 V ± 10 %
Current Consumption	7 mA max.
Rise Time tr	7 ns max.
Fall Time tf	7 ns max.
Duty Cycle	40/60 %

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-481	
Quantities below the standard reel size to be supplied on cut tape.	

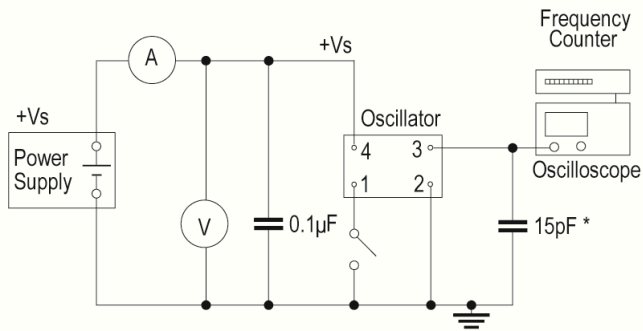
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Part Number: 8302100271 | IQX0-540

AKA Number: LFSPX0100271

Test Circuit



* Inclusive of jigging and equipment capacitance

Company Address

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