



## DFXO-P

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Statek's 7.0 x 5.0mm surface mount Differential Output Crystal Oscillator is designed for applications requiring low jitter and ultra high frequency differential outputs in a small footprint. Offered at frequencies from 20MHz to 300MHz with operation over a temperature range of (-40°C to +105°C). No external decoupling capacitor required with internal capacitor.

Model Name	Description
DFXO-P 2.5V	A 2.5V version
DFXO-P 3.3V	A 3.3V version

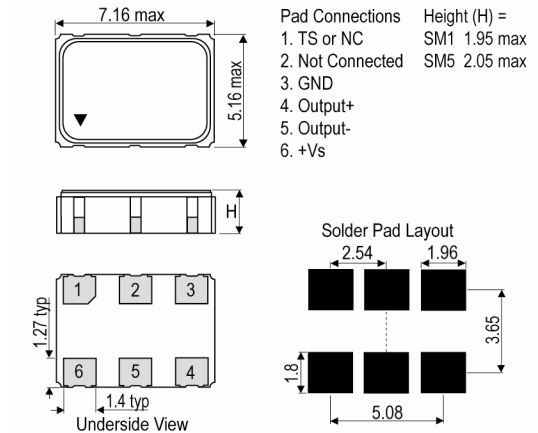
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### Description

- This product is designed and manufactured by Statek Corporation in California, USA and distributed by IQD. Statek's 7.0 x 5.0mm surface mount Differential Output Crystal Oscillator is designed for applications requiring low jitter and ultra high frequency differential outputs in a small footprint. Offered at frequencies from 20MHz to 160MHz with operation over a temperature range of (-40°C to +105°C). No external decoupling capacitor required with internal capacitor.
- -SM1 (Gold plated, RoHS compliant)
- -SM5 (Solder dipped, RoHS compliant)
- FEATURES
  - Low phase noise
  - Low phase jitter
  - Internal 0.01µF SMD decoupling capacitor
  - Low Allan deviation
  - High Frequency Fundamental Mode Crystal
  - Extended Industrial temperature range
- APPLICATIONS
  - Avionics
  - Communications
  - Networking
- Please note that all data is only valid at 25°C unless otherwise stated.



### Outline (mm) -SM5 = (Solder dipped, RoHS compliant)



### Frequency Parameters

- Frequency: 20.0MHz to 160.0MHz
- Frequency Tolerance: ±25.00ppm to ±100.00ppm
- Tolerance Condition: @ 25°C
- Frequency Stability: ±25.00ppm to ±150.00ppm
- Ageing: ±5ppm max in 1st year @ 25°C

### Electrical Parameters

- Supply Voltage: 2.5V ±10%
- Supply Voltage (absolute max rating): -0.5V to 4.6V

### Operating Temperature Ranges

- -10 to 70°C
- -40 to 85°C
- -40 to 105°C

### Output Details

- Output Compatibility: LVPECL
- Drive Capability: 50Ω
- Duty Cycle: @ Vs-1.3V

### Output Control

- Tri-State (TS):
  - Pad 1 normally high (internal pull-up resistor), output immediate
  - Pad 1 logic '0', pad 4(5) high impedance
  - Pad 1 logic '1', pad 4(5) output

or NC = No connection to pad 1

### Output Levels

- Output High (load=50Ω to Vs-2V): Vs-1.025V min
- Output Low (load=50Ω to Vs-2V): Vs-1.620V max

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#### Environmental Parameters

- Storage Temperature Range: -65 to 150°C
- Shock: Std: 5000G, 0.3ms, 1/2 sine
- Vibration: MIL-STD-202G, Method 204D, Condition D: 20G, 10-2000Hz, swept sine. Note: Random vibration testing also available, please contact our sales offices.
- ESD Protection Human Body Model: 2kV

#### Manufacturing Details

- Maximum process temperature: 260°C for 10 seconds

#### Ordering Information

- Frequency\*
- Model\*
- Termination Variant\*
- Output Compatibility
- Frequency Tolerance (@ 25°C)\*
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Supply Voltage
- Pad 1 Function\*
- (\*minimum required)
- Example  
100.0MHz DFXO-P 2.5V SM1  
±50ppm ±50ppm -10 to 70C TS

#### Compliance

- RoHS Status (2015/863/EU)      Compliant
- REACH Status                      Compliant
- MSL Rating (JDEC-STD-033):    Not Applicable

#### Packaging Details

- Pack Style: Tray      Supplied on a tray  
Pack Size: 1
- Pack Style: Reel      Tape & reel in accordance with EIA-481-D  
Pack Size: 1,000

#### Electrical Specification - maximum limiting values 2.5V ±10%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time (20-80%)	Duty Cycle
		°C	ppm	mA	ns	%
20.0MHz	160.0MHz	-10 to 70	±25.0	100	1.5	40/60%
		-40 to 85	±25.0	100	1.5	40/60%
		-40 to 105	±75.0	100	1.5	40/60%

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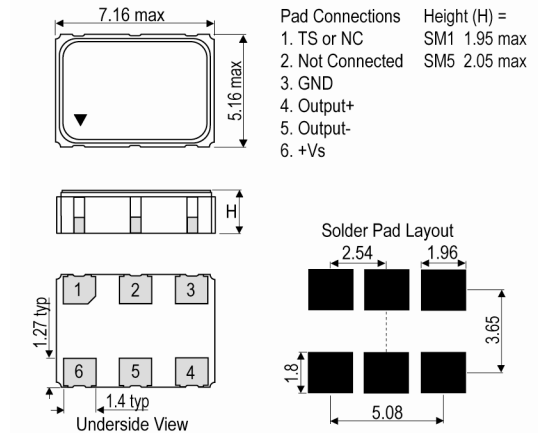
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  - Low Allan deviation
  - High Frequency Fundamental Mode Crystal
  - Extended Industrial temperature range
- APPLICATIONS
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Outline (mm) -SM1 = (Gold plated, RoHS compliant)



### Frequency Parameters

- Frequency      20.0MHz to 300.0MHz
- Frequency Tolerance      ±25.00ppm to ±100.00ppm
- Tolerance Condition      @ 25°C
- Frequency Stability      ±25.00ppm to ±150.00ppm
- Ageing      ±5ppm max in 1st year @ 25°C

### Electrical Parameters

- Supply Voltage      3.3V ±10%
- Supply Voltage (absolute max rating): -0.5V to 4.6V

### Operating Temperature Ranges

- -10 to 70°C
- -40 to 85°C
- -40 to 105°C

### Output Details

- Output Compatibility      LVPECL
- Drive Capability      50Ω
- Duty Cycle: @ Vs-1.3V

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