EUROQUARTZ

XOF91 Oscillators

7 x 5mm High Frequency HCMOS Oscillator 125MHz to 320MHz

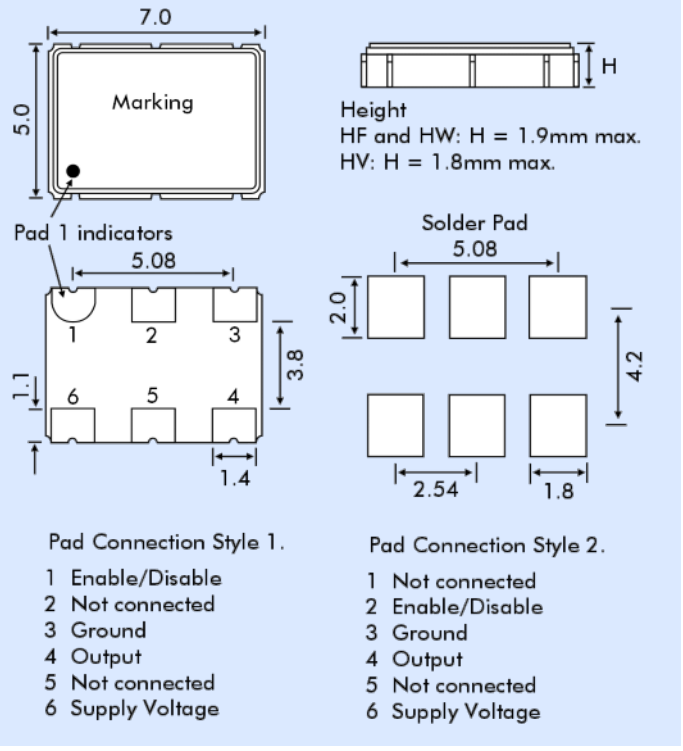
FEATURES

- **Industry-standard 7.0 x 5.0mm SMD package**
- **Frequency Range 125MHz to 320.0MHz**
- **High Q crystal and ultra-low jitter multiplier circuit**
- **Supply voltage 2.5 Volts or 3.3 Volts**
- **Tristate function to conserve power**

DESCRIPTION

XOF91 series oscillators are designed to provide very high quality LVCMOS outputs at frequencies from 125MHz to 320MHz. A high Q crystal and ultra-low jitter multiplier circuit provide extremely good performance. An enable/disable function is standard and the oscillator may also be specified with a power down function.

OUTLINE & DIMENSIONS



SPECIFICATION

Frequency Range:	125.0MHz to 200.0MHz (15pF load) 125.0MHz to 320.0MHz (10pF load)
Output Logic:	LVCMOS
Integrated Phase Jitter:	0.4ps typical 0.5ps max (12kHz ~ 20MHz) at 155.520MHz
Period Jitter RMS:	3ps typical, 5 ps max. at 155.520MHz
Period Jitter Peak to Peak:	20ps typ., 30ps max. at 155.520MHz
Frequency Stability	
Commercial:	±10ppm to ±100ppm -10° to +70°C
Industrial:	±20ppm to ±100ppm -40° to +85°C
Supply Voltage:	+2.5 Volts ±5% or +3.3VDC ±5%
Output Voltage	
High '1':	90% Vdd minimum
Low '0':	10% Vdd minimum
Rise/Fall Time:	2.4ns typical, 15pF load. (20%Vdd to 80%Vdd)
Current Consumption:	40mA max.
Load:	15pF
Start-up Time:	5ms typical, 10ms maximum
Duty Cycle:	50% ±5% (Measured at Vdd-1.3V)
Static Discharge Protection:	2kV maximum
Ageing:	±3pmm max. first year then ±2ppm

PHASE NOISE

Offset	Frequency 155.250MHz
10Hz	-62 dBc/Hz
100Hz	-92 dBc/Hz
1kHz	-120 dBc/Hz
10kHz	-132 dBc/Hz
100kHz	-128 dBc/Hz
1MHz	-140 dBc/Hz
10MHz	-150 dBc/Hz

ABSOLUTE MAXIMUM RATINGS

Permanent damage may occur if units are operated beyond specified limits.

Supply Voltage:	+4.6 VDC max.
Input Voltage Vi:	Vss-0.5 min., Vdd +0.5V max.
Input Voltage Vo:	Vss-0.5 min., Vdd +0.5V max.

PAD 1 OPTIONS

DISABLE	Output is disabled when enable/disable pad is taken below 0.3 Vcc referenced to ground Oscillator is continues to run.
ENABLE	Oscillator is enable when enable/disable Pad is taken above 0.7 Vcc referenced to ground.
POWER DOWN	Available by special request: Oscillator shuts down when disabled.

PART NUMBER SCHEDULE

Example: 200.00MHz XOF91050UCTA2

- Frequency
- Series Designation XOF91
- Stability
  - 100 = ±100ppm
  - 050 = ±50ppm
  - 025 = ±25ppm
  - *(For non-standard use e.g. 020' for ±20ppm)*
- Output LVCMOS
- Operating Temp. Range
  - C = Commercial (-10°~70°C)
  - I = Industrial (-40°~+85°C)
- Pad 1 Option
  - T=Tristate (enable/disable)
  - P= Powerdown
- Supply Voltage
  - A = 3.3 Volts
  - B = 2.5 Volts
- Pad Connection Style*
  - Connection Style 1 or Style 2

**Check availability with Euroquartz engineering*

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