7 x 5mm SMD High Frequency Clock Oscillator

FEATURES

- Industry-standard 7.0 x 5.0mm package
- Frequency Range 125MHz to 200MHz
- High Q crystal and multiplier circuit for low cost applications
- Supply voltage 3.3 Volts
- Tristate function to conserve power

RoHS ✓

DESCRIPTION

XOV91 series oscillators are designed to provide a high quality HCMOS output at high frequencies from 125MHz to 200MHz. Phase noise and RMS period jitter are kept within low limits. An enable/disable function is standard and the oscillator may also be specified with a power down function.

SPECIFICATION

Frequency Range:	125.0MHz to 200.0MHz
Output Logic:	LVCMOS
Integrated Phase Jitter:	2.3ps typical 4.0ps max (12kHz ~ 20MHz) at 155.520MHz
Period Jitter RMS:	4.0ps typical at 155.520MHz
Period Jitter Peak to Peak:	27ps typical at 155.520MHz
Frequency Stability	
Commercial:	±10ppm to ±100ppm -10° to +70°C
Industrial:	±20ppm to ±100ppm -40° to +85°C
Supply Voltage:	+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:	25mA max.
Load:	15pF
Start-up Time:	5ms typical, 10ms maximum
Duty Cycle:	50% ±5%
Static Discharge Protection:	2kV maximum
Ageing:	±2pmm per year maximum

PHASE NOISE

Offset	Frequency 155.250MHz
10Hz	-65 dBc/Hz
100Hz	-95 dBc/Hz
1kHz	-120 dBc/Hz
10kHz	-128 dBc/Hz
100kHz	-122 dBc/Hz
1MHz	-120 dBc/Hz
10MHz	-140 dBc/Hz

ABSOLUTE MAXIMUM RATINGS

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

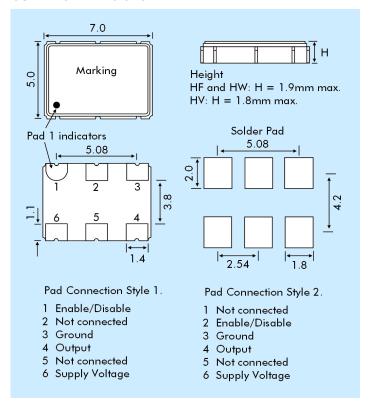|	
Supply Voltage:	+4.6 VDC max.
Input Voltage Vi:	Vss-0.5 min., Vdd +0.5V max.
Input Voltage Vo:	Vss-0.5 min., Vdd +0.5V max.

PAD 1 OPTIONS

DISABLE	Output is disabled when Pad 1 is taken below 0.3 Vcc referenced to ground. Oscillator is continues to run.
ENABLE	Oscillator is enable when Pad 1 is taken above 0.7 Vcc referenced to ground.
POWER DOWN	Available by special request: Oscillator shuts down when disabled.

OUTLINE & DIMENSIONS

Height
HF and HW: H = 1.9mm max.
HV: H = 1.8mm max.

Pad 1 indicators

Solder Pad

Pad Connection Style 1.

1 Enable/Disable
2 Not connected
3 Ground
4 Output
5 Not connected
6 Supply Voltage

Pad Connection Style 2.

1 Not connected
2 Enable/Disable
3 Ground
4 Output
5 Not connected
6 Supply Voltage

PART NUMBER SCHEDULE

Example: **200.00MHz XOV91050UCTA2**

Frequency
Series Designation XOV91
Stability
    100 = ±100ppm
    050 = ±50ppm
    025 = ±25ppm
    (For non-standard use '020' for ±20ppm e.g.)
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 = 3.3 Volts
Pad Connection Style*
    Connection Style 1 or Style 2
Check availability with Euroquartz engineering