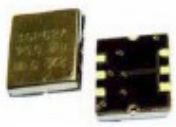
HPW62 LVPECL OSCILLATORS

11.4 x 9.6mm SMD 6 pad

DESCRIPTION

HPW62 series LVPECL output oscillators cover the frequency range 750kHz to 800MHz. The part contains a high 'Q' fundamental crystal and multiplier circuit.

RoHS COMPLIANT 2002 / 95 /EC



SPECIFICATION

Frequency Range:	750.0MHz to 800.0MHz
Output Logic	LVPECL
Phase Noise:	*See table*
Frequency Stability:	*See table*
Operating Temp Range	
Commercial:	-10° to +70°C
Industrial:	-40° to +85°C
Input Voltage:	+3.3VDC ±5%
Output Voltage	
High '1':	Vdd -1.025V min.
Low '0':	Vdd -1.620V max. (RL = 50Ω to Vdd -2.0V)
Rise/Fall Times:	1.5ns typical (20% Vdd to 80% Vdd)
Current Consumption (15pF load):	
<24MHz:	25mA max.
24.01 to 96MHz:	65mA max.
96.01 to 700MHz:	100mA max.
Load:	50Ω into Vdd-2.0V
Start-up Time:	5ms typ., 10ms max.
Duty Cycle:	50%±5% (at Vdd -1.3V)
Input Static Discharge Prot:	2kV min.
Storage Temperature Range:	-55°C to +150°C
Ageing:	±3ppm per year max., ±2ppm thereafter. At T amb +25°C
Enable/Disable	
No connection:	Both outputs enabled
Disable:	Both outputs are disabled when control pad is taken below 0.3V referenced to ground. Oscillator is always 'on'. (Special request - oscillator is off when disabled.)
Enable:	Both Outputs are enabled when control pad is taken above 0.7 Vcc referenced to ground.

ABSOLUTE MAXIMUM RATINGS

(Permanent damage may be caused if operated beyond these limits.)

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

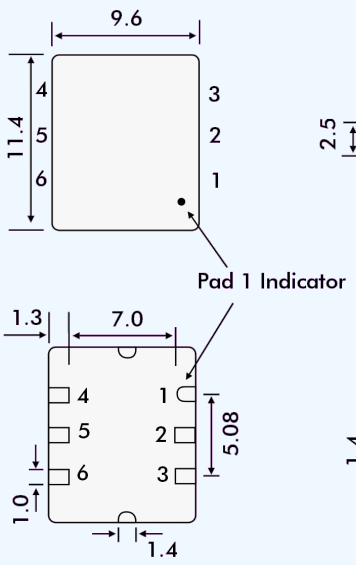
STABILITY OVER TEMPERATURE RANGE

Stability ±ppm	Temperature Range °C	Order Code
25	-10 to +70	**A**
50	-10 to +70	**B**
100	-10 to +70	**C**
25	-40 to +85	**D**
50	-40 to +85	**E**
100	-40 to +85	**F**

JITTER

Integrated Phase Jitter: (12kHz to 20MHz)	2.6ps typical at 155.520MHz
Period Jitter (RMS):	4.3ps typical at 155.520MHz
Period Jitter (peak to peak):	27ps typical at 155.520MHz

OUTLINE & DIMENSIONS



Pad Connections HP_621	Pad Connections HP_622
1 Enable/Disable (Tristate)	1 Not connected
2 Not connected	2 Enable/Disable (Tristate)
3 Ground	3 Ground
4 Output	4 Output
5 Complimentary Output	5 Complimentary Output
6 Supply Voltage	6 Supply Voltage

PHASE NOISE (155.250MHz)

Offset	dBc/Hz
10Hz	-65
100Hz	-95
1kHz	-120
10kHz	-125
100kHz	-121
1MHz	-120
10MHz	-140

PART NUMBERS

HPW62 oscillator part numbers are derived as follows:

Example: **3HPW621-A-250.000**

- Supply Voltage: 3 = 3.3VDC
- Series Designation
- Package Style: 621 or 622
- Stability Code: (See table)
- Frequency

EUROQUARTZ LIMITED Blacknell Lane CREWKERNE Somerset UK TA18 7HE
Tel: +44 (0)1460 230000 Fax: +44 (0)1460 230001 Email: info@euroquartz.co.uk www.euroquartz.co.uk