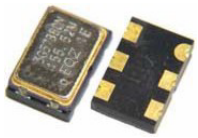
HPF576 LVPECL OSCILLATORS

7x5mm SMD 6 pad

DESCRIPTION

HPF576 series LVPECL output oscillators cover the frequency range 38MHz to 640MHz. The part contains a high 'Q' fundamental crystal and utilizes a low jitter multiplier circuit.

RoHS COMPLIANT 2002 / 95 /EC



SPECIFICATION

Frequency Range:	38.0MHz to 640.0MHz
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:	+2.5V or +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:	0.7ns typical (20% Vdd to 80% Vdd)
Current Consumption (15pF load):	
38MHz to 100MHz:	65mA max.
100.01 to 320MHz:	80mA max.
320.01 to 640MHz:	90mA 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.

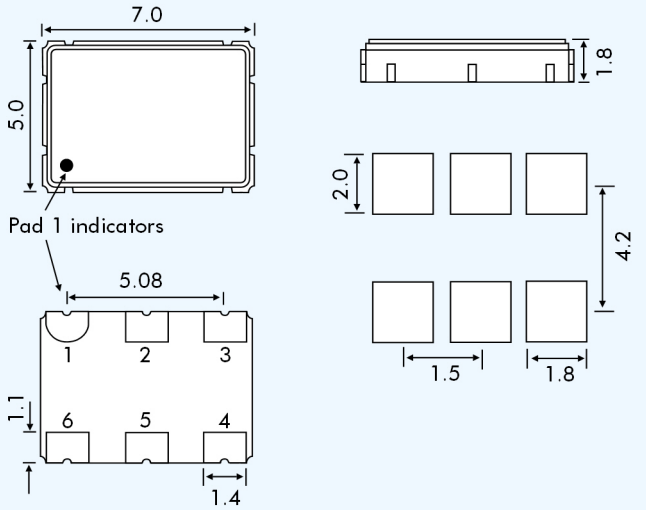
STABILITY OVER TEMPERATURE RANGE

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 (at Fr = 156.520MHz)

Integrated Phase Jitter: (12kHz to 20MHz)	0.4ps typical, 0.5ps max.
Period Jitter (RMS):	3ps typical 5ps maximum
Period Jitter (peak to peak):	20ps typical 30ps maximum

OUTLINE & DIMENSIONS



Pad Connections HP_5761

1: Enable/Disable
2: Not connected
3: Ground
4: Output
5: Complimentary Output
6: Vcc

Pad Connections HP_5762

1: Not connected
2: Enable/Disable
3: Ground
4: Output
5: Complimentary Output
6: Vcc

PHASE NOISE (156.250MHz)

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

PART NUMBERS

HPF576 oscillator part numbers are derived as follows:

Example: **3HPF5762-A-250.000**

Supply Voltage
25 = 2.5VDC
3 = 3.3VDC
Series Designation
Package Style
5761 or 5762
Stability Code
(See table)
Frequency

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