

### DESCRIPTION

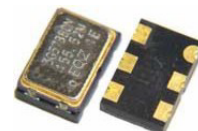
HPA576 series LVPECL output oscillators cover the frequency range 60MHz to 320MHz. The part utilizes a crystal operating in third overtone mode (Non-PLL)

### SPECIFICATION

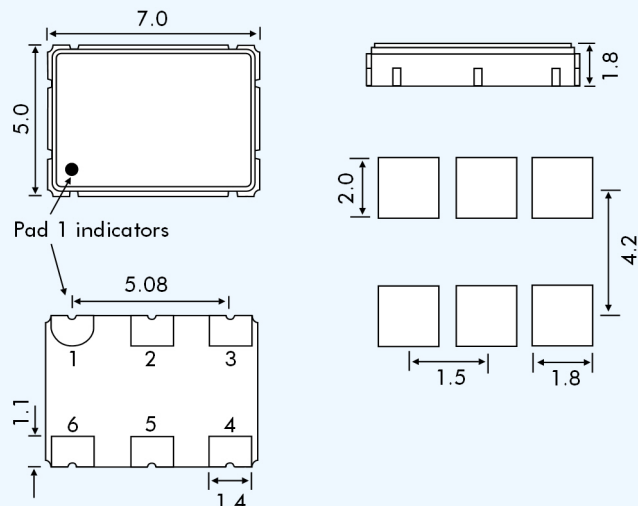
Frequency Range:	60.0MHz to 320.0MHz
Output Logic:	LVPECL
Phase Noise:	See table
Frequency Stability:	See table
Operating Temp Range	
Commercial:	-10° to +70°C
Industrial:	-40° to +85°C
Input Voltage:	+2.5VDC or +3.3VDC $\pm 5\%$
Output Voltage	
High '1':	Vdd -1.025V min.
Low '0':	Vdd -1.620V max.
	(RL = 50 $\Omega$ to Vdd -2.0V)
Rise/Fall Times:	0.25ns typical (20% Vdd to 80% Vdd)
Current Consumption:	75mA max. at 212.50MHz
Load:	50 $\Omega$ into Vdd-2.0V
Start-up Time:	5ms typ., 10ms max.
Duty Cycle:	50% $\pm 5\%$ (at Vdd -1.3V)
Input Static Discharge Prot:	2kV min.
Storage Temperature Range:	-55°C to +150°C
Ageing:	$\pm 3$ ppm per year max., $\pm 2$ ppm 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.



### 7x5mm SMD 6 pad



### 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 (155.250MHz)

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

### 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 $\pm$ 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:	0.25ps typical at 155.520MHz
(12kHz to 20MHz)	
Period Jitter (RMS):	3.0ps typical at 155.520MHz
Period Jitter (peak to peak):	21ps typical at 155.520MHz

### PART NUMBERS

HPA576 oscillator part numbers are derived as follows:

Example:

**3HPA5762-A-250.000**

Supply Voltage

3 = 3.3VDC  
25 = 2.5VDC

Series Designation

Package Style

5761 or 5762

Stability Code

(See table)

Frequency