

# CFPS-34 Oscillator

ISSUE 2; 23 JULY 2008

RoHS  
2002/95/EC

## Delivery Options

- Please contact our sales office for current leadtimes

## Description

- The CFPS-34 is a high frequency, surface mount oscillator with complementary LVPECL outputs.

## Output Compatibility

- LVPECL
- Output Load 50Ω terminated to +1.3V

## Output Voltage

- "0" Level VoL +1.7V max
- "1" Level VoH +2.2V min

## Package Outline

- 7.5 x 5 x 1.4mm SMD

## Frequency Range

- 75.0 to 170.0MHz

## Frequency Stabilities

- ±25ppm, ±50ppm, ±100ppm (inclusive of supply voltage & output load variations over the operating temperature range)

## Operating Temperature Ranges

- -10 to 70°C (CFPS-34)
- -40 to 85°C (CFPS-34I)

## Storage Temperature Range

- -55 to 125°C

## Tri-state Operation

- Logic '1' (>70% Vs) to pad 1 enables oscillator output
- Logic '0' (<30% Vs) to pad 1 disables oscillator output; the oscillator output goes to the high impedance state
- No connection to pad 1 enables oscillator output

## Phase Jitter

- 1ps rms max ( 12kHz - 20MHz )

## Environmental

- Shock: MIL-STD-202F, Method 213B ( 1000G, 0.5ms )
- Vibration: MIL-STD-202F, Method 204D, Test Condition D 20G Frequency range 10-2000Hz, 4 hrs for X, Y & Z ( total 12hrs )

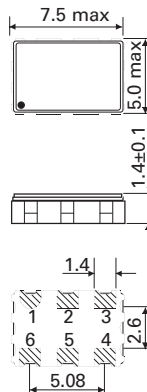
## Marking includes

- Model Number
- Frequency

## Minimum Order Information Required

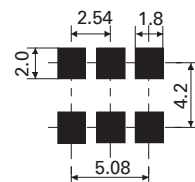
- Frequency + Model Number + Operating Temperature Code (if applicable) + Frequency Stability

## Outline in mm

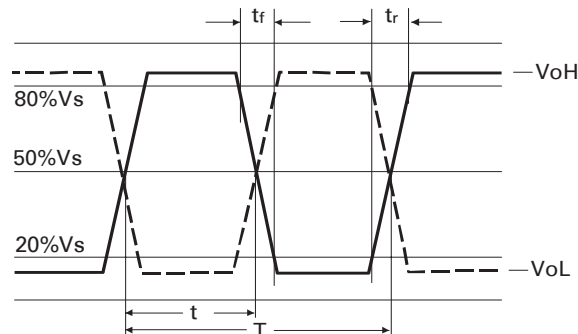


- Pad connections
1. Enable/Disable
  2. N/C
  3. GND
  4. Output 1
  5. Output 2
  6. +Vs

## Solder pad layout

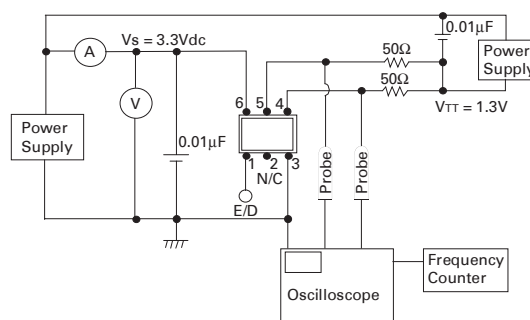


## Output Waveform



$$\text{Duty cycle} = \frac{t}{T} \times 100(\%)$$

## Test Circuit - LVPECL



Tel: +44 (0)1460 270200

Fax: +44 (0)1460 72578

Website: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

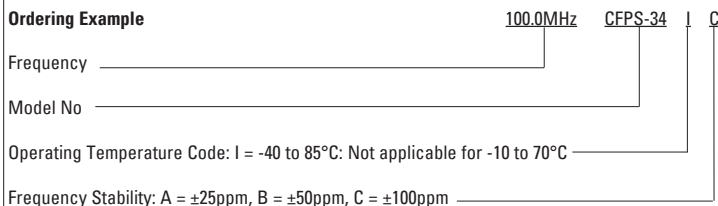
e-mail: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)



**Electrical Specification - maximum limiting values when measured in LVPECL test circuit**

Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Rise Time (tr) (20% to 80%)	Fall Time (tf) (80% to 20%)	Duty Cycle	Model Number
75.0 to 170.0MHz	±25ppm*, ±50ppm, ±100ppm	3.3V±5%	60mA	1.0ns	1.0ns	40/60%	CFPS-34 CFPS-34I

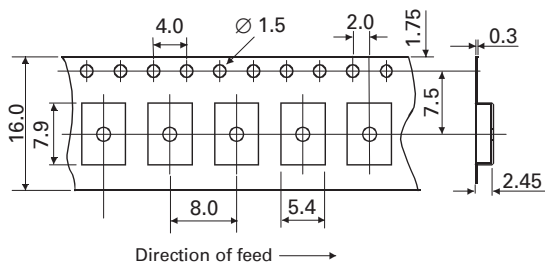
**Ordering Example**



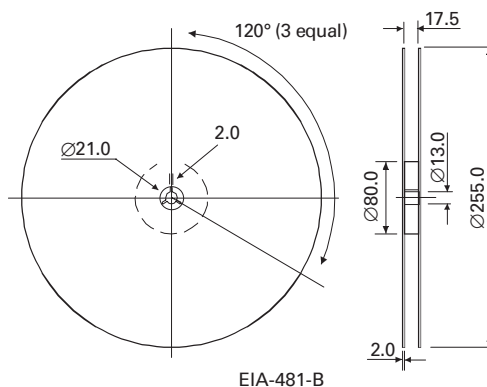
\*Note - Code IA, ±25ppm over -40 to 85°C is not available

SURFACE MOUNT  
SPX0s

**Outline in mm - Tape**



**Outline in mm - Reel**



Tel: +44 (0)1460 270200

Fax: +44 (0)1460 72578

Website: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

e-mail: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)