



## Features

- ▶ Temperature stability down to 5ppb
- ▶ Single 12V supply (15v or 18V optional)
- ▶ Compact package
- ▶ Standard European IEC CO-08 pin-out
- ▶ Custom options available

## Standard Models

The table shows the most common models. In most cases selecting one of these models will ensure the best combination of price / performance and availability.

| Freq    | Specification | Ageing per day          | Temperature stability           | Part No |
|---------|---------------|-------------------------|---------------------------------|---------|
| 5.0MHz  | HCD360/DPFN   | $\pm 1 \times 10^{-9}$  | $\pm 2 \times 10^{-8}$ -20+70°C | MS06935 |
| 5.0MHz  | HCD360/ERFN   | $\pm 5 \times 10^{-10}$ | $\pm 1 \times 10^{-8}$ -20+70°C | MS06936 |
| 10.0MHz | HCD360/DPFN   | $\pm 1 \times 10^{-9}$  | $\pm 2 \times 10^{-8}$ -20+70°C | MS06933 |
| 10.0MHz | HCD360/ERFN   | $\pm 5 \times 10^{-10}$ | $\pm 1 \times 10^{-8}$ -20+70°C | MS06522 |

## Specifications

| Parameters   | Product   | Option Codes     |
|--|---|------------------|
|  | HCD360  |                  |
| <b>Frequency range:</b> 5.0 ~ 20.0MHz  | ■   |                  |
| <b>Ageing per day (at despatch):</b><br>$< \pm 1 \times 10^{-9}$<br>$< \pm 5 \times 10^{-10}$<br>$< \pm 2 \times 10^{-10}$   | <input type="checkbox"/><br>■<br><input type="checkbox"/>                             | D<br>E<br>F      |
| <b>Frequency stability:</b><br>$< \pm 5 \times 10^{-8}$ per year<br>$< \pm 1 \times 10^{-9}$ per 10% change in $V_{DD}$  | ■<br>■  |                  |
| <b>Short term stability:</b><br>$< \pm 1 \times 10^{-11}$ over 1 sec   | ■   |                  |
| <b>Temperature stability:</b> $< \pm 2 \times 10^{-8}$<br>$< \pm 1 \times 10^{-8}$<br>$< \pm 5 \times 10^{-9}$   | <input type="checkbox"/><br>■<br><input type="checkbox"/>                             | P<br>R<br>S      |
| <b>Operating temperature range:</b><br>0 to +50°C<br>-10 to +60°C<br>-20 to +70°C<br>-40 to +70°C  | <input type="checkbox"/><br><input type="checkbox"/><br>■<br><input type="checkbox"/> | A<br>C<br>F<br>G |
| <b>Storage temperature range:</b><br>-40 to +90°C  | ■   |                  |
| <b>Output waveform:</b><br>Sine wave, 7dBm ( $\pm 2$ dBm) into 50Ω   | ■   |                  |
| <b>Frequency adjustment:</b><br>$\pm 5 \times 10^{-7}$ (typ) over +0.5 to +7.0V<br>(sufficient for 10 years ageing min)<br>Stabilised +7.0V supply provided          | ■   |                  |
| <b>Supply voltage (<math>V_{DD}</math>):</b><br>+12V ( $\pm 0.5$ V)<br>+15V ( $\pm 0.5$ V)<br>+18V ( $\pm 0.5$ V)  | ■<br><input type="checkbox"/><br><input type="checkbox"/>                             | N<br>P<br>R      |
| <b>Power consumption:</b><br>5.0W max at switch on<br>1.2W typ when stabilised at 25°C   | ■<br>■  |                  |
| <b>Warm up:</b><br>$< \pm 1 \times 10^{-8}$ after 10mins at +20°C  | ■   |                  |
| <b>Phase noise (@ 10.0MHz):</b><br>$< -125$ dBc/Hz @ 10Hz<br>$< -135$ dBc/Hz @ 100Hz<br>$< -150$ dBc/Hz @ 1kHz<br>$< -155$ dBc/Hz @ 10kHz<br>$< -155$ dBc/Hz @ 50kHz | ■<br>■<br>■<br>■<br>■   |                  |
| <b>Harmonics:</b> $< -30$ dB wrt carrier   | ■   |                  |
| <b>Shock:</b> IEC 68-2-27 Test Ea<br>50G for 11ms  | ■   |                  |
| <b>Vibration:</b> IEC 68-2-06 Test Fc<br>10-55Hz, 1.5mm. 55-500Hz, 10G   | ■   |                  |

■ Standard. □ Optional - Please specify required code(s) when ordering

## Ordering Information

Part No, or product name + option codes + frequency

eg: **HCD360/DPFN 10.0MHz**

**HCD360/ERFN 5.0MHz**

Option code X (eg HCD360/X) denotes a custom specification.