



HCD 370

Features

- Low height compact package
- Temperature stability down to 5ppb
- Single 12V oven and oscillator supply (15V or 18V optional)
- Standard European IEC CO-08 pin-out
- Custom options available

Standard Models

The table below shows the most common models; in most cases selecting one of these will ensure best combination of price, performance and availability.

| Product Code | Freq | Ageing per day | Temp stability |
|--------------|---------|-------------------------|---------------------------------|
| HCD370/DPFN | 5.0MHz | $\pm 1 \times 10^{-9}$ | $\pm 2 \times 10^{-8}$ -20+70°C |
| HCD370/ERFN | 5.0MHz | $\pm 5 \times 10^{-10}$ | $\pm 1 \times 10^{-8}$ -20+70°C |
| HCD370/DPFN | 10.0MHz | $\pm 1 \times 10^{-9}$ | $\pm 2 \times 10^{-8}$ -20+70°C |
| HCD370/ERFN | 10.0MHz | $\pm 5 \times 10^{-10}$ | $\pm 1 \times 10^{-8}$ -20+70°C |



| Parameters HCD370 | | Standard / Optional | Code |
|-------------------------------|---|---------------------|------|
| Frequency range: | 5.0 ~ 20.0MHz | Standard | |
| Ageing per day (at dispatch): | $< 1 \times 10^{-9}$ | Optional | D |
| | $< 5 \times 10^{-10}$ | Standard | E |
| | $< 2 \times 10^{-10}$ | Optional | F |
| Frequency stability: | $< 5 \times 10^{-8}$ per year max | Standard | |
| | $< 1 \times 10^{-9}$ per 10% change V_{DD} | Standard | |
| Temperature stability: | $< 2 \times 10^{-8}$ | Optional | P |
| | $< 1 \times 10^{-8}$ | Standard | R |
| | $< 5 \times 10^{-9}$ | Optional | S |
| Operating temperature range: | 0 to +50°C | Optional | A |
| | -10 to +60°C | Optional | C |
| | -20 to +70°C | Standard | F |
| | -40 to +70°C | Optional | G |
| Storage temp: | -40 to +90°C | Standard | |
| Output waveform: | Sine wave, 7dBm (± 2 dBm) into 50 Ω | Standard | |
| Frequency adjustment: | $\pm 5 \times 10^{-7}$ (typ) over +0.5 to +7.0V (sufficient for 10 years ageing min) Stabilised +7.0V supply provided | Standard | |
| Supply Voltage (V_{DD}): | +12.0V (± 0.5 V) | Standard | N |
| | +15.0V (± 0.5 V) | Optional | P |
| | +18.0V (± 0.5 V) | Optional | R |
| Power consumption: | 5W max at switch on | Standard | |
| | 1.2W typ (stabilised at 25°C) | Standard | |
| Allan deviation (ADEV), 1sec | $< 1 \times 10^{-12}$ (10.0MHz) | Standard | |
| Phase noise (@10MHz): | < -95 dBc/Hz @ 1Hz | Standard | |
| | < -30 dBc/Hz @ 10Hz | Standard | |
| | < -140 dBc/Hz @ 100Hz | Standard | |
| | < -150 dBc/Hz @ 1kHz | Standard | |
| | < -155 dBc/Hz @ 10kHz | Standard | |
| | < -155 dBc/Hz @ 100kHz | Standard | |
| Harmonics: | < -30 dB wrt carrier | Standard | |

