



## Features

- ▶ Temperature stability down to 50ppb
- ▶ Single 5V oven & oscillator supply
- ▶ Low profile 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	HCD300/BNDL	$\pm 5 \times 10^{-9}$	$\pm 5 \times 10^{-8}$ -20+60°C	MA05178
10.0MHz	HCD300/BNDL	$\pm 5 \times 10^{-9}$	$\pm 5 \times 10^{-8}$ -20+60°C	MS09525
5.0MHz	HCD301/BNDL	$\pm 5 \times 10^{-9}$	$\pm 5 \times 10^{-8}$ -20+60°C	MA05179
10.0MHz	HCD301/BNDL	$\pm 5 \times 10^{-9}$	$\pm 5 \times 10^{-8}$ -20+60°C	MS08568
13.0MHz	HCD301/BNDL	$\pm 5 \times 10^{-9}$	$\pm 5 \times 10^{-8}$ -20+60°C	MS07546

## Specifications

**HCD300: Sine output**

**HCD301: HCMOS / TTL compatible output**

Parameters	Product		Option Codes
	HCD300	HCD301	
Frequency range: 5.0 ~ 20.0MHz	■	■	
Ageing per day (at despatch): < $\pm 1 \times 10^{-8}$ < $\pm 5 \times 10^{-9}$	□ ■	□ ■	A B
Frequency stability: $\pm 5 \times 10^{-7}$ per year max $\pm 5 \times 10^{-8}$ per 5% change in $V_{DD}$	■ ■	■ ■	
Temperature stability: < $\pm 1 \times 10^{-7}$ < $\pm 5 \times 10^{-8}$	□ ■	□ ■	M N
Operating temperature range: 0 to +50°C -20 to +60°C -20 to +70°C	□ ■ □	□ ■ □	A D F
Storage temperature range: -40 to +90°C	■	■	
Output waveform: Sine wave, 1.5V p-p $\pm 0.5V$ into 50Ω HCMOS / TTL compatible	■	■	
Frequency adjustment: $\pm 5 \times 10^{-6}$ typ (10MHz), +0.5 to +4.0V (sufficient for 10 years ageing min) Stabilised +4.0V supply provided	■	■	
Supply voltage ( $V_{DD}$ ): +5.0V ( $\pm 0.25V$ )	■	■	L
Power consumption: 4.5W max at switch on < 1.0W typ when stabilised at 25°C	■ ■	■ ■	
Warm up: $\pm 5 \times 10^{-8}$ after 10mins at +25°C	■	■	
Phase noise (@ 10.0MHz): < -105dBc/Hz @ 10Hz < -125dBc/Hz @ 100Hz < -145dBc/Hz @ 1kHz < -150dBc/Hz @ 10kHz < -150dBc/Hz @ 50kHz	■ ■ ■ ■ ■	■ ■ ■ ■ ■	
Shock: IEC 68-2-27 Test Ea 50G for 11ms	■	■	
Vibration: IEC 68-2-06 Test Fc 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: **HCD300/BNDL 10.0MHz**

**HCD301/BMFL 5.0MHz**

Option code X (eg HCD301/X) denotes a custom specification.