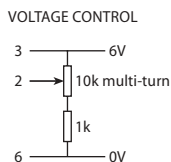


PIN	CONNECTION
1	Case
2	Freq Adjustment
3	+6V output
4	RF output
5	Supply
6	Ground



Scale 1:1

## Features

- ▶ HCMOS / TTL compatible output
- ▶ Low profile package
- ▶ Cost effective
- ▶ Single supply version of HCD180 / 1
- ▶ Custom options available

## Standard Models

Freq	Specification	Ageing per day	Temperature stability	Part No
5.0MHz	HCD190/BNDN	$\pm 5 \times 10^{-9}$	$\pm 5 \times 10^{-8}$ -20+60°C	MS08425
10.0MHz	HCD190/BNDN	$\pm 5 \times 10^{-9}$	$\pm 5 \times 10^{-8}$ -20+60°C	MA05204

## Specifications

**HCD190: 5.0 ~ 16.0MHz**

**HCD191: 30.0kHz ~ 5.0MHz**

Parameters	Product		Option Codes
	HCD190	HCD191	
<b>Frequency range:</b> 30.0kHz ~ 5.0MHz 5.0 ~ 16.0MHz	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Ageing per day (at despatch):</b> $< \pm 1 \times 10^{-8}$ $< \pm 5 \times 10^{-9}$	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	A B
<b>Frequency stability:</b> $\pm 5 \times 10^{-7}$ / year max $\pm 1 \times 10^{-7}$ per 5% change in $V_{DD}$	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
<b>Temperature stability:</b> $< \pm 1 \times 10^{-7}$ $< \pm 5 \times 10^{-8}$	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	M N
<b>Operating temperature range:</b> 0 to +50°C -20 to +60°C -20 to +70°C	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	A D F
<b>Storage temperature range:</b> -40 to +90°C	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Output waveform:</b> HCMOS / TTL compatible	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Frequency adjustment:</b> $\pm 2 \times 10^{-5}$ typ, +0.5 to +6.0V (sufficient for 10 years ageing min) Stabilised +6.0V supply provided	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Supply voltage (<math>V_{DD}</math>):</b> +12.0V ( $\pm 0.5$ V) Other options from 10~30V	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	N specify
<b>Power consumption:</b> 4.5W max at switch on 1.0W typ when stabilised at 25°C	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
<b>Warm up:</b> $\pm 5 \times 10^{-8}$ after 10mins at +25°C	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Phase noise (@ 10.0MHz):</b> $< -110$ dBc/Hz @ 10Hz $< -130$ dBc/Hz @ 100Hz $< -145$ dBc/Hz @ 1kHz $< -150$ dBc/Hz @ 10kHz	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
<b>Shock:</b> IEC 68-2-27 Test Ea 50G for 11ms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Vibration:</b> IEC 68-2-06 Test Fc 10-55Hz, 1.5mm. 55-500Hz, 10G	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

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

## Ordering Information

Part No, or Product name + frequency

eg: **HCD190/BNDN 10.0MHz**

**HCD191/AMFN 10.0MHz**

Option code X (eg HCD190/X) denotes a custom specification.