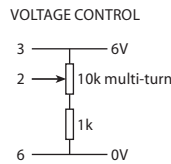


PIN	CONNECTION
1	Case
2	Freq Adjustment
3	+6V output
4	RF output
5	Supply
6	Ground



## 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	■	■	
<b>Ageing per day (at despatch):</b> < ±1x10 <sup>-8</sup> < ±5x10 <sup>-9</sup>	□ ■	□ ■	A B
<b>Frequency stability:</b> ±5x10 <sup>-7</sup> / year max ±1x10 <sup>-7</sup> per 5% change in V <sub>DD</sub>	■ ■	■ ■	
<b>Temperature stability:</b> < ±1x10 <sup>-7</sup> < ±5x10 <sup>-8</sup>	□ ■	□ ■	M N
<b>Operating temperature range:</b> 0 to +50°C -20 to +60°C -20 to +70°C	□ ■ □	□ ■ □	A D F
<b>Storage temperature range:</b> -40 to +90°C	■	■	
<b>Output waveform:</b> HCMOS / TTL compatible	■	■	
<b>Frequency adjustment:</b> ±2x10 <sup>-5</sup> typ, +0.5 to +6.0V (sufficient for 10 years ageing min) Stabilised +6.0V supply provided	■	■	
<b>Supply voltage (V<sub>DD</sub>):</b> +12.0V (±0.5V) Other options from 10~30V	■ □	■ □	N specify
<b>Power consumption:</b> 4.5W max at switch on 1.0W typ when stabilised at 25°C	■ ■	■ ■	
<b>Warm up:</b> ±5x10 <sup>-8</sup> after 10mins at +25°C	■	■	
<b>Phase noise (@ 10.0MHz):</b> < -110dBc/Hz @ 10Hz < -130dBc/Hz @ 100Hz < -145dBc/Hz @ 1kHz < -150dBc/Hz @ 10kHz	■ ■ ■ ■	■ ■ ■ ■	
<b>Shock:</b> IEC 68-2-27 Test Ea 50G for 11ms	■	■	
<b>Vibration:</b> IEC 68-2-06 Test Fc 10-55Hz, 1.5mm. 55-500Hz, 10G	■	■	

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

## 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	±5x10 <sup>-9</sup>	±5x10 <sup>-8</sup> -20+60°C	MS08425
10.0MHz	HCD190/BNDN	±5x10 <sup>-9</sup>	±5x10 <sup>-8</sup> -20+60°C	MA05204

## 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.