



HCD 210

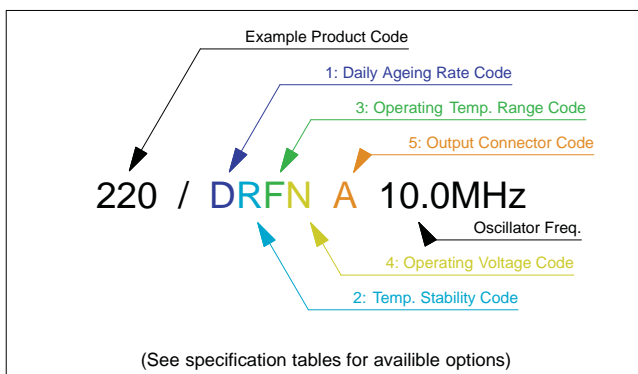
Features

- Frequencies up to 100MHz
- Internal multiplier above 50.0MHz
- Single oven and oscillator supply
- 12V supply standard, 15V or 18V optional
- 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
210/ BNDN D	5.0MHz	$< 5 \times 10^{-9}$	$< 5 \times 10^{-8}$ -20+60°C
210/ BNDN D	10.0MHz	$< 5 \times 10^{-9}$	$< 5 \times 10^{-8}$ -20+60°C



Parameters HCD210		Standard / Optional	Code
Frequency range:	5.0 ~ 100.0MHz	Standard	
Ageing per day (at dispatch):	$< 1 \times 10^{-8}$	Optional	A
	$< 5 \times 10^{-9}$	Standard	B
Frequency stability:	$< 5 \times 10^{-7}$ per year max	Standard	
	$< 1 \times 10^{-8}$ per 5% change VDD	Standard	
	$< 5 \times 10^{-8}$ per 5% change in load	Standard	
Short term stability:	$< 5 \times 10^{-12}$ over 1 sec (5.0MHz)	Standard	
	$< 5 \times 10^{-11}$ over 1 sec (10.0MHz)	Standard	
Temperature stability:	$< 1 \times 10^{-7}$	Optional	M
	$< 5 \times 10^{-8}$	Standard	N
Operating temperature range:	0 to +50°C	Optional	A
	-20 to +60°C	Standard	D
	-20 to +70°C	Optional	F
Storage temp:	-40 to +90°C	Standard	
Output waveform:	Sine wave, 1.5V p-p $\pm 0.5v$ into 50Ω	Standard	
Frequency adjustment:	$\pm 2 \times 10^{-8}$ (typ) over +0.5 to +6.0V (sufficient for 10 years ageing min) Stabilised +6.0V supply provided	Standard	
Supply Voltage (V _{DD}):	+12.0V ($\pm 0.5V$)	Standard	N
	+15.0V ($\pm 0.5V$)	Optional	P
	+18.0V ($\pm 0.5V$)	Optional	R
Power consumption:	4.5W max at switch on	Standard	
	1.0W typ (stabilised at 25°C)	Standard	
Warm up:	$\pm 5 \times 10^{-8}$ after 10mins at 25°C	Standard	
Phase noise (@10MHz):	$< -110dBc/Hz$ @ 10Hz	Standard	
	$< -130dBc/Hz$ @ 100Hz	Standard	
	$< -145dBc/Hz$ @ 1kHz	Standard	
	$< -150dBc/Hz$ @ 10kHz	Standard	
	$< -150dBc/Hz$ @ 50kHz	Standard	
External connectors:	D9	Standard	D
	D9 + single SMA	Optional	A
	D9 + single SMB	Optional	B
	Other (single SMC/BNC/MCX)	Optional	specify
Harmonics:	$< -30dB$ wrt carrier	Standard	
Shock:	IEC68-2-27 Test Ea 50G for 11ms	Standard	
Vibration:	IEC68-2-06 Test Fc 10-55Hz, 1.5mm. 55-500Hz, 10G	Standard	

