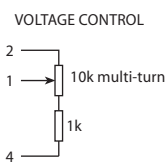


PIN	CONNECTION
1	Freq adjustment
2	Ref voltage out
3	RF output
4	Ground
5	Supply



Features

- ▶ Temperature stability down to 1ppb
- ▶ Single 12V supply (12V ~ 30V optional)
- ▶ Standard US footprint & pin-out
- ▶ "Best in class" close-in phase noise option

Specifications

Parameters	Product	Option Codes
	HCD681	
Frequency range: 5.0 ~ 20.0MHz	<input checked="" type="checkbox"/>	
Ageing per day (at despatch): $< 1 \times 10^{-9}$ $< 5 \times 10^{-10}$ $< 2 \times 10^{-10}$	<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	D E F
Frequency stability: $< 1 \times 10^{-7}$ per year (option D) $< 2 \times 10^{-8}$ per year (option F) $< 1 \times 10^{-9}$ per 10% change in V_{DD} $< 5 \times 10^{-10}$ per 10% change in load	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
Temperature stability: $< 1 \times 10^{-8}$ $< 5 \times 10^{-9}$ $< 3 \times 10^{-9}$ $< 1 \times 10^{-9}$	<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	R S T V
Operating temperature range: -10 to $+60^{\circ}\text{C}$ -20 to $+70^{\circ}\text{C}$ -40 to $+70^{\circ}\text{C}$	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	C F G
Storage temperature range: -40 to $+90^{\circ}\text{C}$	<input checked="" type="checkbox"/>	
Output waveform: CMOS / TTL compatible	<input checked="" type="checkbox"/>	
Frequency adjustment: $\pm 5 \times 10^{-7}$ (typ) over $+0.5$ to $+7.0\text{V}$ (sufficient for 10 years ageing min) Stabilised $+7.0\text{V}$ supply provided	<input checked="" type="checkbox"/>	
Supply voltage (V_{DD}): $+12\text{V}$ ($\pm 0.5\text{V}$) Other options from $12 \sim 30\text{V}$	<input checked="" type="checkbox"/> <input type="checkbox"/>	N specify
Power consumption: 5.0W max at switch on 1.2W typ when stabilised at 25°C	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
Warm up: $< 1 \times 10^{-8}$ after 8mins at $+20^{\circ}\text{C}$	<input checked="" type="checkbox"/>	
Allan deviation (ADEV), 1 sec: $< 5 \times 10^{-13}$ over 1 sec (5.0MHz) $< 1 \times 10^{-12}$ over 1 sec (10.0MHz)	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
Close-in phase noise (@ 5.0MHz): < -110 dBc/Hz @ 1Hz, < -135 @ 10Hz < -123 dBc/Hz @ 1Hz, < -140 @ 10Hz < -150 dBc/Hz @ 100Hz	<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	Z
Close-in phase noise (@ 10.0MHz): < -95 dBc/Hz @ 1Hz, < -130 @ 10Hz < -108 dBc/Hz @ 1Hz, < -135 @ 10Hz < -145 dBc/Hz @ 100Hz	<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	Z
Far-out phase noise (all freqs): < -155 dBc/Hz @ 1kHz < -157 dBc/Hz @ 10kHz < -157 dBc/Hz @ 100kHz	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
Harmonics: $< -30\text{dB}$ wrt carrier	<input checked="" type="checkbox"/>	

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

Ordering Information

Part No, or product name + option codes + frequency
 eg: **HCD681/FTFN 10.0MHz**
 Option code X (eg HCD681/X) denotes a custom specification.