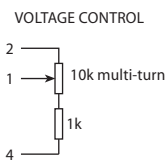


PIN	CONNECTION
1	Freq adjustment
2	Ref voltage out
3	RF output
4	Ground
5	Supply



Features

- ▶ **Fast warm up**
- ▶ **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
	HCD685	
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°C -20 to +70°C -40 to +70°C	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	C F G
Storage temperature range: -40 to +90°C	<input checked="" type="checkbox"/>	
Output waveform: Sine wave, 7dBm (± 1 dBm) into 50Ω Other options to +13dBm max	<input checked="" type="checkbox"/> <input type="checkbox"/>	specify
Frequency adjustment: $\pm 5 \times 10^{-7}$ (typ) over +0.5 to +7.0V (sufficient for 10 years ageing min) Stabilised +7.0V supply provided	<input checked="" type="checkbox"/>	
Supply voltage (V_{DD}): +12V (± 0.5 V) Other options from 12~30V	<input checked="" type="checkbox"/> <input type="checkbox"/>	N specify
Power consumption: 10.0W max at switch on 1.3W typ when stabilised at 25°C	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
Warm up: $< 1 \times 10^{-8}$ after 2.25mins at +25°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 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: **HCD685/FTFN 10.0MHz**
 Option code X (eg HCD685/X) denotes a custom specification.