

# HCD686

## Fast Warm Up OCXO with CMOS

### Output and US Pin-out



- Fast warm up
- Temperature stability down to 1ppb
- Single 12V supply (12V ~ 30V optional)
- Standard US footprint & pin-out
- Custom options available

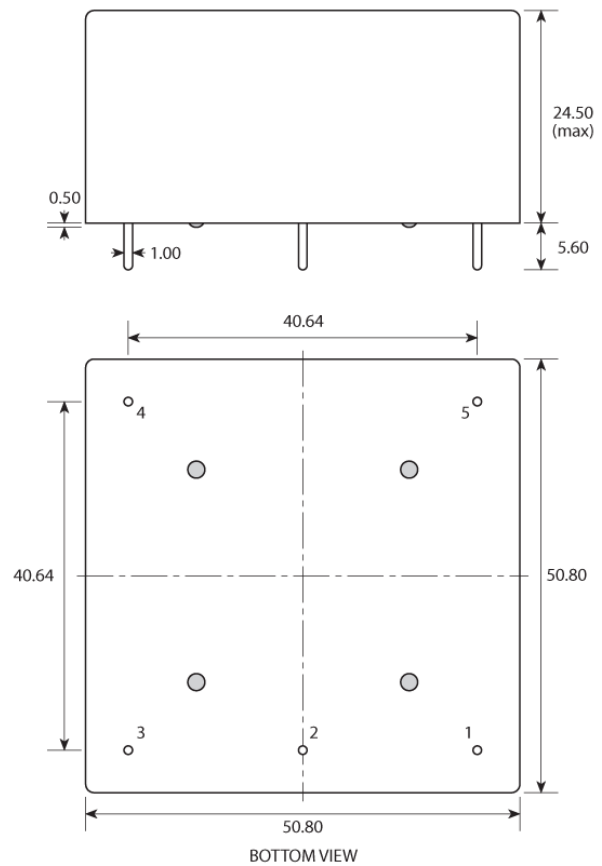
### CONFIGURABLE OPTIONS

Parameter	Option Code
<b>Frequency</b>	
<b>Ageing per day (at despatch)</b>	
Any	
< 1x10 <sup>-9</sup>	D
< 5x10 <sup>-10</sup>	E
< 2x10 <sup>-10</sup>	F
<b>Temperature stability</b>	
Any	
< 1x10 <sup>-8</sup>	R
< 5x10 <sup>-9</sup>	S
< 3x10 <sup>-9</sup>	T
< 1x10 <sup>-9</sup>	V
<b>Operating temperature range</b>	
Any	
-10 to +60 °C	C
-20 to +70 °C	F
-40 to +70 °C	G
<b>Supply voltage (V<sub>DD</sub>)</b>	
+12V (±0.5V)	N
Other options from 12~30V	
<b>Close-in phase noise (@ 5.0MHz)</b>	
Any	
< -110 dBc/Hz @ 1Hz, <-135 @ 10Hz	
< -123 dBc/Hz @ 1Hz, <-140 @ 10Hz	Z
< -150 dBc/Hz @ 100Hz	
<b>Close-in phase noise (@ 10.0MHz)</b>	
Any	
< -95 dBc/Hz @ 1Hz, <-130 @ 10Hz	
< -108 dBc/Hz @ 1Hz, <-135 @ 10Hz	Z
< -145 dBc/Hz @ 100Hz	

## SPECIFICATIONS

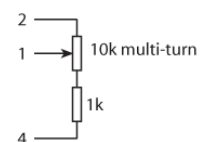
Frequency range	5.0 ~ 20.0MHz
Dimensions	50.8 x 50.8 x 24.5mm
Frequency stability	< $1 \times 10^{-7}$ per year (option D) < $2 \times 10^{-8}$ per year (option F) < $1 \times 10^{-9}$ per 10% change in $V_{DD}$ < $5 \times 10^{-10}$ per 10% change in load
Storage temperature range	-40 to +90 °C
Output waveform	CMOS / TTL compatible
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
Power consumption	10.0W max at switch on 1.3W typ when stabilised at 25 °C
Warm up	< $1 \times 10^{-8}$ after 2.25mins at +25 °C
Allan deviation (ADEV), 1 sec	< $5 \times 10^{-13}$ over 1 sec (5.0MHz) < $1 \times 10^{-12}$ over 1 sec (10.0MHz)
Far-out phase noise (all freqs)	< -155 dBc/Hz @ 1kHz < -157 dBc/Hz @ 10kHz < -157 dBc/Hz @ 100kHz
Harmonics	< -30dB wrt carrier

## PACKAGE DRAWING



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

### VOLTAGE CONTROL



Dimensions in mm

## ORDERING INFORMATION

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To request a quotation for the HCD686 please use the configurable options form to choose the options you require and then submit your configured product to our team. Our expert advisers are always happy to help with your requirements and can be contacted on +44 1460 256 100 or at [sales@golledge.com](mailto:sales@golledge.com).

Following product selection you will be issued with a seven character Golledge part number. Your Golledge part number is the internationally accepted Golledge manufacturing part number (MPN) that should be used for all project documentation, including bills of materials (BoMs) and purchase orders.

If you have any queries regarding any of our documentation our dedicated sales team will be happy to help.

## CONSTRUCTION

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Solder sealed metal can

## HANDLING & STORAGE

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Human Body Model (HBM) 1A (250V to <500V)



Moisture Sensitivity Level (MSL): 1 (or not applicable)

## COMPLIANCE

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Lead-free (< 0.1% by weight )



RoHS compliant with no exemptions. [See our declaration](#)



REACH compliant. [See our statement](#)



Free of conflict minerals. [See our declaration](#)



Free of Halogens. [See our declaration](#)



Free of Ozone-depleting substances. [See our declaration](#)