

# HCD665

## Fast Warm Up OCXO with Sine Output and European Pin-out

---

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

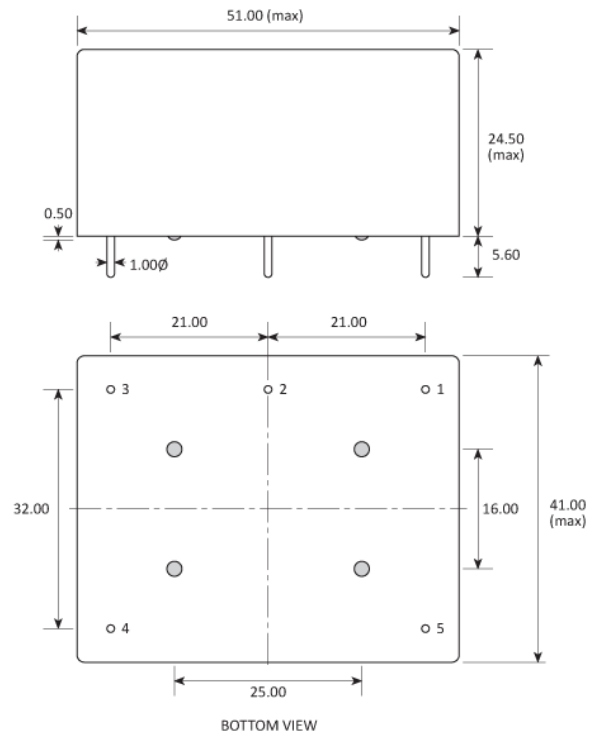


**CONFIGURABLE OPTIONS**

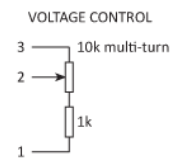
| Parameter                               | Option Code |
|---|-------------|
| <b>Frequency</b>                        |             |
| Ageing per day (at despatch)            |             |
| Any                                     |             |
| < 1x10 <sup>-9</sup>                    | D           |
| < 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                                     |             |
| 0 to +50 °C                             | A           |
| -10 to +60 °C                           | C           |
| -20 to +70 °C                           | F           |
| -40 to +70 °C                           | G           |
| <b>Output waveform</b>                  |             |
| Sine wave, 7dBm (±1dBm) into 50Ω        |             |
| Other options to +13dBm max             |             |
| <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                      | 51.0 x 41.0 x 24.5mm   |
| Frequency stability             | < $2 \times 10^{-8}$ per year<br>< $1 \times 10^{-9}$ per 10% change in $V_{DD}$<br>< $5 \times 10^{-10}$ per 10% change in load |
| Storage temperature range       | -40 to +90 °C  |
| Frequency adjustment            | $\pm 5 \times 10^{-7}$ (typ) over +0.5 to +7.0V<br>(sufficient for 10 years ageing min)<br>Stabilised +7.0V supply provided      |
| Power consumption               | 10.0W max at switch on<br>1.3W typ when stabilised at 25 °C  |
| Warm up                         | < $\pm 1 \times 10^{-8}$ after 2.25mins at +25 °C  |
| Allan deviation (ADEV), 1 sec   | < $5 \times 10^{-13}$ (5.0MHz)<br>< $1 \times 10^{-12}$ (10.0MHz)  |
| Far-out phase noise (all freqs) | < -155 dBc/Hz @ 1kHz<br>< -157 dBc/Hz @ 10kHz<br>< -157 dBc/Hz @ 100kHz  |
| Harmonics                       | < -30dB wrt carrier  |

**PACKAGE DRAWING**


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



Dimensions in mm

## ORDERING INFORMATION

To request a quotation for the HCD665 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

Solder sealed metal can

## HANDLING & STORAGE



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



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

## MATERIAL COMPOSITION



Lead-free (< 0.1% by weight )



RoHS 2 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](#)

## OTHER INFORMATION

### About Golledge

We are the UK's leading supplier of frequency control products and are proud to serve the global electronics industry. Our philosophy is a focus firmly on your requirements by striving to meet and exceed your needs. We do this by ensuring the utmost quality and consistency in our products and services. If you have any queries about the Golledge service or any of our products please get in touch, we'd love to hear from you.

### Come and visit

Eaglewood Park, ILMINSTER,  
Somerset, TA19 9DQ, England

### Give us a call

Tel: +44 1460 256 100  
Fax: +44 1460 256 101

### Email us

sales@golledge.com

### Our Worldwide Distributors

#### Belgium & Luxembourg

Alcom Electronics NV/SA



Email info@alcom.be  
Web www.alcom.be  
Tel +32 (0)3 458.30.33

#### China, Hong Kong - 中国 / 香港

Meiya China



Email sales@meiyatech.com  
Web www.meiyatech.com  
Tel +86 755 2823 1923

#### France

Equipments Scientifique



Email comp@es-france.com  
Web www.es-france.com  
Tel +33 1 47 95 99 89

#### Germany

MEV Elektronik Service GmbH



Email info@mev-elektronik.com  
Web www.mev-elektronik.com  
Tel +49 54 24 23 40-0

#### India

V5 Semiconductors



Email sales@v5semiconductors.com  
Web v5semiconductors.com  
Tel +91-80-2661 0621

#### Israel

Phoenix Technologies Ltd



Email sales@phnx.co.il  
Web www.phnx.co.il  
Tel +972 9 764 4800

#### Netherlands

Alcom Electronics BV



Email info@alcom.nl  
Web alcom.nl  
Tel +31 (0)10 288.25.00

#### Norway

Link Nordic



Email bjorn.nyjordet@linknordic.com  
Web linknordic.com  
Tel +47 93 22 68 90

#### Russia - Россия

EFO Ltd



Email elena@efo.ru  
Web www.golledge.ru  
Tel +7(812)327-8654

#### Spain & Portugal

R.C. Microelectronica, S.A.



Email ventas@rcmicro.es  
Web www.rcmicro.es  
Tel +34 93 260 21 66

Our customer feedback is testament to our quality; "Never had such good service as this from anyone in 35 years of being in the industry, this is impressive and has really helped us out of a corner to keep the design flowing" Andy (Senior Design Engineer), "As always your support is state of the art" Nicoleta (Material Management), "Legendary work - as usual it has to be said" John (Operations).

To take advantage of our highly praised service get in touch with us today.