

# **HCD660**

# **OCXO Sine Output High Performance**

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



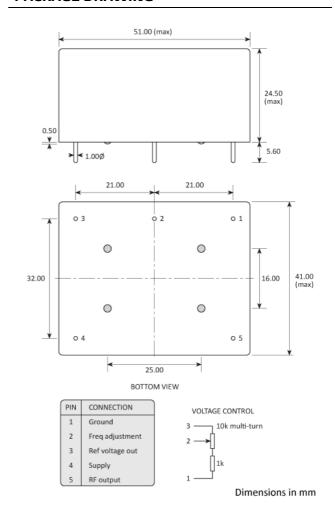
Parameter	Option Code
Frequency	
Ageing per day (at despatch)	
Any	
< 1x10 <sup>-9</sup>	D
< 5x10 <sup>-10</sup>	Е
< 2x10 <sup>-10</sup>	F
Temperature stability	
Any	
< 1x10 <sup>-8</sup>	R
< 5x10 <sup>-9</sup>	S
< 3x10 <sup>-9</sup>	Т
< 1x10 <sup>-9</sup>	V
Operating temperature range	
Any	
-10 to +60°C	С
-20 to +70°C	F
-40 to +70°C	G
Output waveform	
Sine wave, 7dBm (±1dBm) into 50Ω	
Supply voltage (V <sub>DD</sub> )	
+12V (±0.5V)	N
Close-in phase noise (@ 5.0MHz)	
Any	
< -110 dBc/Hz @ 1Hz, <-135 @ 10Hz	
< -123 dBc/Hz @ 1Hz, <-140 @ 10Hz	Z
< -150 dBc/Hz @ 100Hz	
Close-in phase noise (@ 10.0MHz)	
Any	
< -95 dBc/Hz @ 1Hz, <-130 @ 10Hz	
< -108 dBc/Hz @ 1Hz, <-135 @ 10Hz	Z



## **SPECIFICATIONS**

Frequency range	5.0 ~ 20.0MHz
Frequency stability	< 1x10 <sup>-7</sup> per year (option D) < 2x10 <sup>-8</sup> per year (option F)
	< 1x10 <sup>-9</sup> per 10% change in V <sub>DD</sub>
	< 5x10 <sup>-10</sup> per 10% change in load
Storage temperature	-40 to +90°C
range	
Frequency	±5x10 <sup>-7</sup> (typ) over +0.5 to +7.0V
adjustment	
(sufficient for 10	
years ageing min)	
Stabilised +7.0V	
supply provided	
Power consumption	5.0W max at switch on
	1.2W typ when stabilised at 25°C
Warm up	$< 1x10^{-8}$ after 8mins at $+20$ $^{\circ}$ C
Allan deviation	< 5x10 <sup>-13</sup> (5.0MHz)
(ADEV), 1 sec	< 1x10 <sup>-12</sup> (10.0MHz)
Far-out phase noise	< -155 dBc/Hz @ 1kHz
(all freqs)	< -157 dBc/Hz @ 10kHz
	< -157 dBc/Hz @ 100kHz
Harmonics	< -30dB wrt carrier

## **PACKAGE DRAWING**





#### **ORDERING INFORMATION**

To request a quotation for the HCD660 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 <a href="mailto:sales@golledge.com">sales@golledge.com</a>.

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.

#### **HANDLING & STORAGE**



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



Moisture Sensitivity Level (MSL): 1

#### CONSTRUCTION

Solder sealed metal can

#### **COMPLIANCE**



Lead-free (< 0.1% by weight)



RoHS compliant with no exemptions.