

# HCD220

## OCXO Sine Output

- Temperature stability down to 1ppb
- Twin RF outputs available
- Oven alarm option on D9 connector
- Custom options available



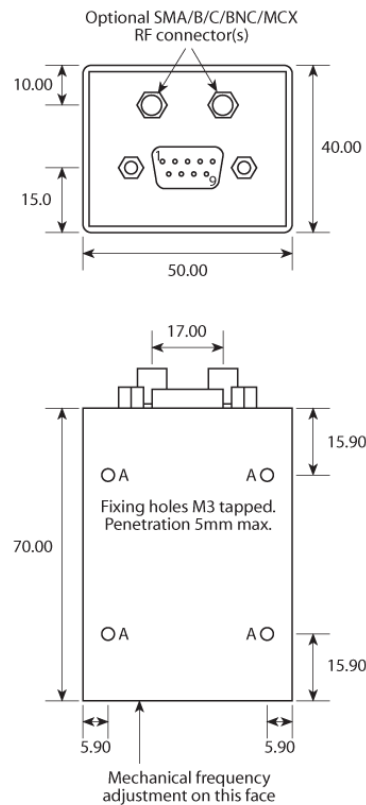
### CONFIGURABLE OPTIONS

Parameter	Option Code
<b>Frequency</b>	
<b>Ageing per day (at despatch)</b>	
Any	
< $\pm 1 \times 10^{-9}$	D
< $\pm 2 \times 10^{-10}$	F
< $\pm 1 \times 10^{-10}$ (<10MHz only)	G
<b>Temperature stability</b>	
Any	
< $\pm 1 \times 10^{-8}$	R
< $\pm 5 \times 10^{-9}$	S
< $\pm 3 \times 10^{-9}$	T
< $\pm 1 \times 10^{-9}$	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 ( $\pm 1$ dBm) into 50 $\Omega$	
<b>Supply voltage (V<sub>DD</sub>)</b>	
Any	
+12V ( $\pm 0.5$ V)	N
+24V ( $\pm 0.5$ V)	T
<b>External connectors</b>	
Any	
D9	D
D9 + single SMA	A
D9 + twin SMA	G

## SPECIFICATIONS

Frequency range	5.0 ~ 16.0MHz
Frequency stability	$< \pm 2 \times 10^{-8}$ per year $< \pm 1 \times 10^{-9}$ per 10% change in $V_{DD}$ $< \pm 5 \times 10^{-10}$ per 10% change in load
Short term stability	$< \pm 5 \times 10^{-12}$ over 1 sec (5.0MHz) $< \pm 1 \times 10^{-11}$ over 1 sec (10.0MHz)
Storage temperature range	-40 to +90°C
Frequency adjustment	$\pm 5 \times 10^{-7}$ (typ) over +0.5 to +8V Mechanical $\pm 5 \times 10^{-7}$
Sufficient for 10 years ageing min Stabilised +8V supply provided	
Power consumption	5.0W max at switch on 2.0W typ when stabilised at 25°C
Warm up	$< \pm 1 \times 10^{-8}$ after 12mins at +25°C
Phase noise (@ 10.0MHz)	$< -130$ dBc/Hz @ 10Hz $< -140$ dBc/Hz @ 100Hz $< -155$ dBc/Hz @ 1kHz $< -158$ dBc/Hz @ 10kHz $< -160$ dBc/Hz @ 50kHz
Harmonics	$< -30$ dB wrt carrier
Shock (IEC 68-2-27 Test Ea)	50G for 11ms
Vibration (IEC 68-2-06 Test Fc)	10-55Hz, 1.5mm. 55-500Hz, 10G

## PACKAGE DRAWING



PIN	CONNECTION
1	Freq adjust (+ve)
2	Fine adjust
3	Freq adjust (-ve)
4	Isolated RF output
5	Isolated RF output
6	+ Supply
7	DO NOT USE
8	- Supply
9	Case

Dimensions in mm

## ORDERING INFORMATION

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To request a quotation for the HCD220 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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Shielded metal enclosure

## HANDLING & STORAGE

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



Moisture Sensitivity Level (MSL): 1

## MATERIAL COMPOSITION

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Lead-free (< 0.1% by weight)



Product is RoHS 2 compliant

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**OTHER INFORMATION**


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**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.

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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.