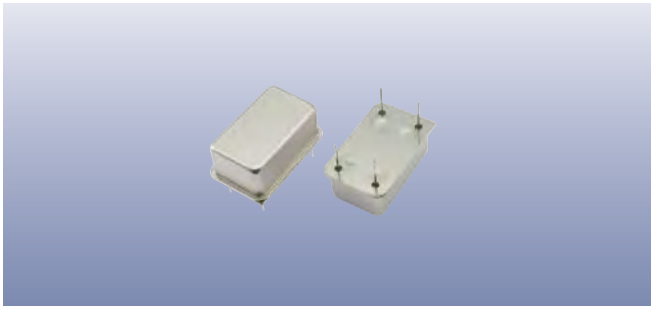
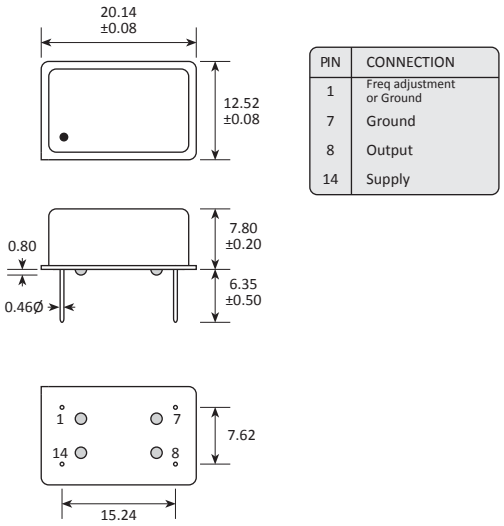
3.3V OCXO CMOS Output

MCOCXOW





PIN	CONNECTION
1	Freq adjustment or Ground
7	Ground
8	Output
14	Supply

Features

- **Compact 14-pin DIL package (SMD optional)**
- **3.3V supply voltage**
- **CMOS compatible output**
- **Very fast warmup**
- **Low power consumption**
- **Wide temperature range available**

Specifications

Parameters	Product MCOCXOW	Option Codes
Frequency range:		
10.0kHz ~ 54.0MHz	■	
Frequency stability:		
±0.5ppm max first year	■	
±3.0ppm max in 10 years	■	
±0.1ppm over V_{DD} ±0.15V	■	
±0.01ppm over 10% change in load	■	
Short term stability:		
$5x10^{-10}$, τ 0.1 to 30s	■	
$5x10^{-11}$ typ at 1s	■	
Temperature stability:		
±0.2ppm max, 0 to +60°C	□	A
±0.075ppm max, 0 to +60°C	□	TA
±0.3ppm max, -20 to +70°C	□	B
±0.15ppm max, -20 to +70°C	□	TB
±0.5ppm max, -40 to +85°C	□	C
±0.25ppm max, -40 to +85°C	□	TC
±0.7ppm max, -55 to +85°C	□	E
±0.3ppm max, -55 to +85°C	□	TE
Storage temperature range:		
-55 to +125°C	■	
Output waveform:		
CMOS compatible	■	
'0'=+0.4V max, '1'=V_{DD}-0.5V min	■	
40:60 max	■	
Rise/fall times 7ns max (no load)	■	
Load: 3pF min, 47pF max	■	
Start up time: 5ms max	■	
Frequency adjustment:		
±3.0ppm min	■	
Control voltage 0~3.3V, pin 1	□	V3
Variable resistor 0~10kΩ, pins 1 to 7	□	R1
None (int accuracy ±1.0ppm)	□	A
None (int accuracy ±0.5ppm)	□	B
Supply voltage (V_{DD}):		
+3.3V (±0.15V)	■	
Input current: 120mA max @ +25°C	■	
170mA max @ -20°C	■	
Warm up time (secs):		
current 250mA max @ 25°C	30	
to within ±0.1ppm @ 25°C	120	
Phase noise (typ @ 10MHz):		
-100dBc/Hz @ 10Hz	■	
-130dBc/Hz @ 100Hz	■	
-140dBc/Hz @ 1kHz	■	
-145dBc/Hz @ 10kHz	■	
Shock & vibration:		
5,000G, 0.3ms ½-sine	■	
10.0 ~ 2,000Hz, 20G	■	
Package: Through hole 14 pin DIL	■	
SMD options 1 or 2	□	specify

■ Standard. □ Optional - Please specify required code(s) when ordering

Ordering Information

Product name + option codes + frequency

eg: **MCOCXOW/AR1 12.80MHz** 0.2ppm 0+60°C

MCOCXOW/BV3 16.3840MHz 0.3ppm -20+60°C

Option code X (eg MCOCXOW/X) denotes a custom spec.

- Product is NOT designed to withstand 260°C reflow processing

Tel: **+44 1460 256 100** Fax: **+44 1460 256 101** E-mail: **sales@golledge.com** Web: **www.golledge.com**

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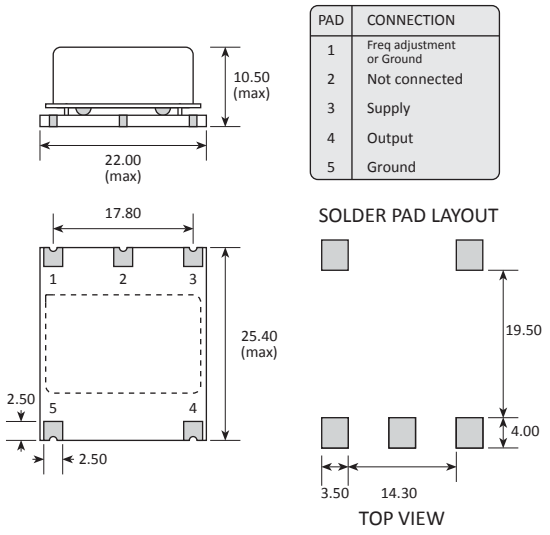
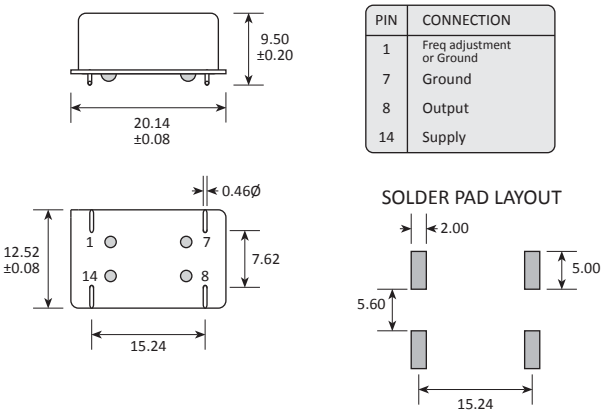
Option D1



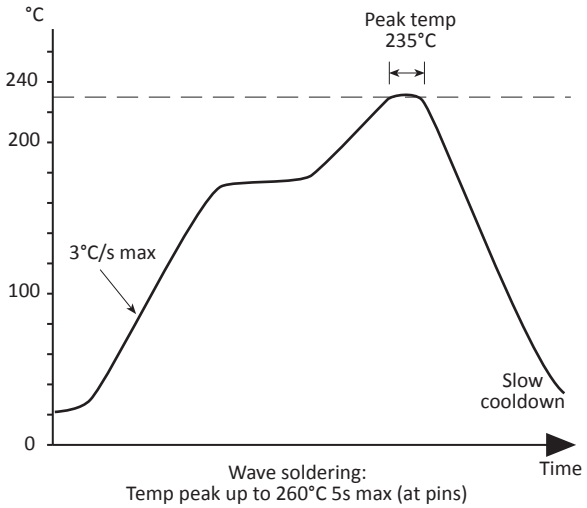
PAD	CONNECTION
1	Freq adjustment or Ground
2	Not connected
3	Supply
4	Output
5	Ground

Option D2



PIN	CONNECTION
1	Freq adjustment or Ground
7	Ground
8	Output
14	Supply

Soldering Profile



Wave soldering:
Temp peak up to 260°C 5s max (at pins)