

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

Ordering Information

Product name + option codes + frequency

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

MCOXOW/BV3 16.3840MHz 0.3ppm -20+60°C

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

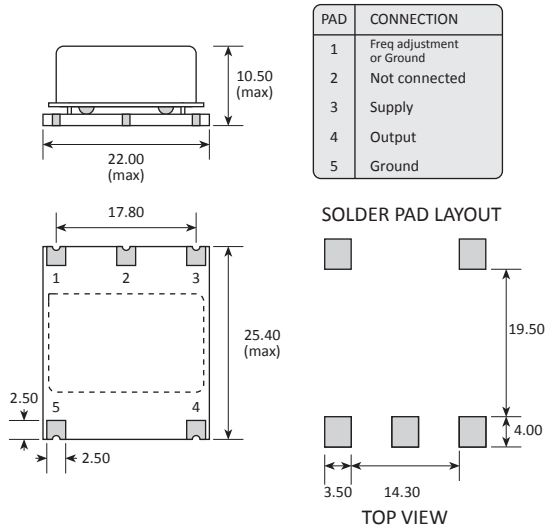
◆ Product is NOT designed to withstand 260°C reflow processing

Specifications

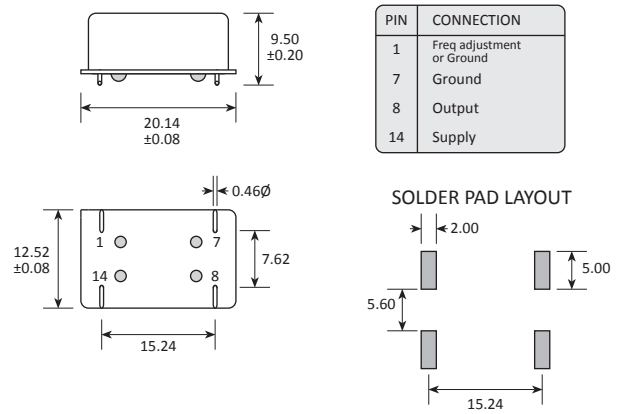
Parameters	Product	Option Codes
	MCOXOW	
Frequency range: 10.0kHz ~ 54.0MHz	■	
Frequency stability: ±0.5ppm max first year ±3.0ppm max in 10 years ±0.1ppm over $V_{DD} \pm 0.15V$ ±0.01ppm over 10% change in load	■ ■ ■ ■	
Short term stability: 5×10^{-10} , τ 0.1 to 30s 5×10^{-11} typ at 1s	■ ■	
Temperature stability: ±0.2ppm max, 0 to +60°C ±0.075ppm max, 0 to +60°C ±0.3ppm max, -20 to +70°C ±0.15ppm max, -20 to +70°C ±0.5ppm max, -40 to +85°C ±0.25ppm max, -40 to +85°C ±0.7ppm max, -55 to +85°C ±0.3ppm max, -55 to +85°C	□ □ □ □ □ □ □ □	A TA B TB C TC E 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 Variable resistor 0~10kΩ, pins 1 to 7 None (int accuracy ±1.0ppm) None (int accuracy ±0.5ppm)	■ □ □ □ □	V3 R1 A 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 to within ±0.1ppm @ 25°C	30 120	
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

Option D1



Option D2



Soldering Profile

