Q100z Ultra-Low Power OCXO



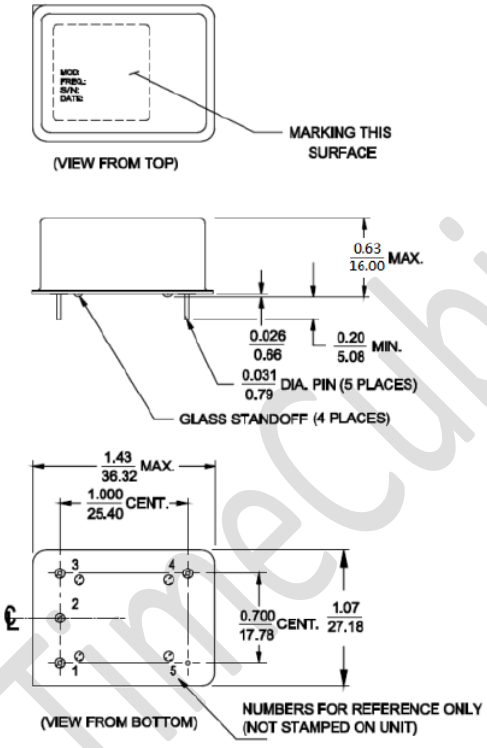
Key Features

- Ultra-low power consumption <70mW, typical at 25C
- Up to <±2ppb Temperature stability
- Low aging, <± 0.05ppb/day, Typical
- 16.384 MHz, HCMOS output

Applications

- Under water sensor and network system
- Mining and Seismic research
- Oil and gas exploration

Mechanical Specifications



PIN CONNECTIONS	
PIN	FUNCTION
1	VCO INPUT
2	REFERENCE VOLTAGE
3	+VDC
4	R. F. OUTPUT
5	0 VOLTS & CASE

*Different height for the package available, please consult with factory
** Hand solder
*Note: Other footprints can be implemented. Please specify.

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Electrical & Environmental Specifications (25 °C, +3.3 VDC input unless otherwise specified)

PARAMETERS	Unit	Min	Typ.	Max	Note	Comments
RF Output						
• Frequency	MHz		16.384		1	
• Amplitude	V		3.0		2	CMOS
• Load	MΩ//10 pf		10			
• R/F Time	ns			10		
Power Input						
• DC Input	V		3.3±0.1			
• Power Consumption	mW		70	85	3	Reference to +25 °C
• Warm up Power	mW			220		*Factory configurable*
• Warm up Time	Minute	1		4		*Factory configurable for fast warm up*
Environmental						
• Operating Temperature & Stability	ppb			±5	4	-10 °C to +50 °C, **±2ppb available**
• Mechanical Shock						1000g, typical
• Vibration						5 G up to 2 kHz
Stability						
• Acceleration Sensitivity	/g			$\pm 1 \times 10^{-9}$		Worst direction
• Aging (after 30days)	/day		$\pm 5 \times 10^{-11}$	$\pm 4 \times 10^{-10}$	5	$\pm 5 \times 10^{-8}$/first year
• Frequency Control	ppm			±0.7		Analog, 0-2.8V
Reference Voltage	V		2.5			Consulting factory

1Consult factory for other frequencies; 2Consult factory for other waveform; 3Referring to 25 °C ambient; 4upper operation temperature tolerance 48 ±2°C; 5Consulting factory for other/optional specifications. Optional specifications are customer specific, not by default. The RF output is meant to drive High Z not 50 ohms.

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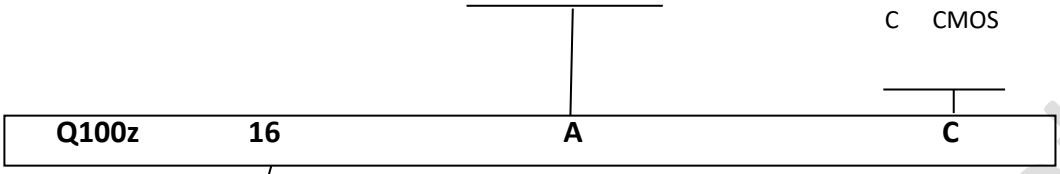
Order Information

Temperature Range

A	+/-5ppb, 0/50C
B	+/-2ppb, 0/+50C

Output

C	CMOS



Frequency (MHz)

Code	Spec.
16	16.384
8	8.192

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