Q52L-16.384M Low Power Oscillator

Key Features

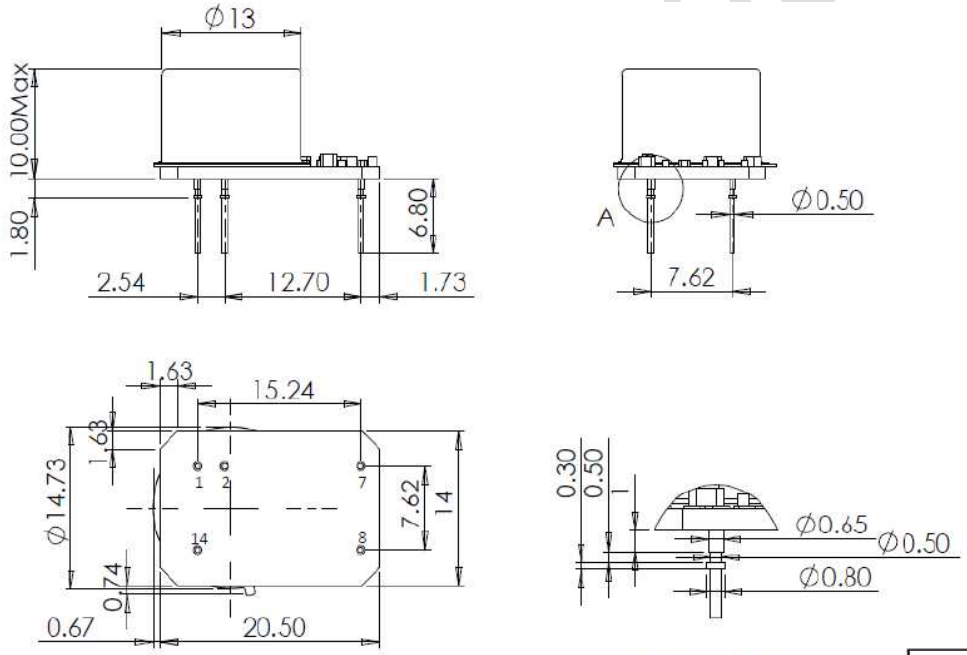


- low power consumption
- Tight frequency stability
- Low aging rate
- Fast warm up
- RoHS

Applications

- Beacons and rescue system
- Battery powered portable communication systems
- Mobile test and measurement equipment
- OBN geophysical survey

Mechanical Specifications, (20.5 X 14 X 10 mm)



Unit : mm

DETAIL A (4 : 1)

Pin	Function
1	VCON
2	V_{REF}
7	GND
8	Output
14	V_{DD}

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Electrical & Environmental Specifications (25 °±3C, +3.3 VDC input unless otherwise specified)

PARAMETERS	Unit	Min	Typ.	Max	Note	Comments
RF Output						
• Frequency	MHz		16.384		1	
• Amplitude	V		3.3		2	CMOS or clipped sinewave 0.8vpp
• Load	MΩ// pf		High Z buffer gate	2		
• R/F Time	ns			10		
Power Input						
• DC Input	V			3.3		
• Power Consumption	mW		109			At 25 °C, 10M//2pf
•	mW			135		*At -10C, 10M//2pf*
• Warm up accuracy						*Refer to1 hr, 25C, 5min of operation* ±100ppb
Environmental						
• Operating Temperature & Stability	ppb			±2		0 °C to +50 °C
• Mechanical Shock						Mil-STD-202, 30 G, 11ms/or (1500G, 1 ms, optional) half sine
• Vibration						Mil-STD-202, method 201, 0.06" Total p-p, 10 to 55 Hz
• Humidity	C					MIL-STD-202, Method 103, condition A
• Storage temperature						-45 °C to +90 °C
Stability						
• Acceleration Sensitivity	/g		$\pm 0.3 \times 10^{-9}$	$\pm 0.5 \times 10^{-9}$		Worst direction.
• Aging (after 30days)	/day		$\pm 0.15 \times 10^{-9}$	$\pm 0.5 \times 10^{-9}$		$\pm 1 \times 10^{-7}$/first year, after 30days
• Frequency Control	ppm		±1			Or Fixed frequency
• Frequency vs Supply	ppb		±1			±0.1V,3.3V

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Reference Voltage

- Reference Voltage V No reference voltage

Order Information

Q52L-xx-16 for 16.384M

-xx refer to table below

Temp. (C)	Stability				
	±2ppb	±5ppb	±10ppb	±20ppb	±50ppb
0~+50C	Q52L-00	Q52L-01	Q52L-02	Q52L-03	Q52L-04
-10C ~ +60C		Q52L-11	Q52L-12	Q52L-13	Q52L-14
-20C~+70C		Q52L-21	Q52L-22	Q52L-23	Q52L-24
-40C~+85C		Q52L-31	Q52L-32	Q52L-33	Q52L-34

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