



Q-TECH
CORPORATION

Q-Tech now offers ultra-miniature high temperature oscillators in packages as small as 2.5 x 3.2 mm. These oscillators are fully qualified, configuration controlled, and thoroughly tested to meet the same high standards as our older, bigger products, while still being capable of covering temperature ranges of -55 °C to +200 °C. Furthermore, Q-Tech offers short lead times, with 8 weeks maximum and in many cases only 2 weeks lead time for standard parts.



Highlights

- Packages as small as 2.5 x 3.2 mm.
- Gold plated standard lead finish.
- Sn60/Pb40 hot solder dip or SAC305 lead free solder are available for an additional cost.
- High temperature range of -55°C to +200°C.
- Qualified to MIL-PRF-55310, Level B.
- High Reliability.
- Quick lead times, 8 weeks guaranteed worst case, 2 weeks typical for repeat orders.
- Shock data available upon request.
- Stocking many standard frequencies. Please contact the factory for list.

Image (Actual Size)	Q-Tech Package	Dimensions (mm)	Product Type	Logic	Voltage	Current (max.)	Frequency Range	Stability
	QTCH230	2.50x3.20x1.15 4 Pad	XO	CMOS	1.8V, 2.5V 3.3V, 5.0V	1mA at 1.8V 1.5mA at 2.5V	32.768kHz 1MHz to 48MHz	100ppm to 250ppm
	QTCH350	3.20x5.00x1.20 4 Pad	XO	CMOS	1.8V, 2.5V 3.3V, 5.0V	2mA at 3.3V mA at 5.0V	32.768kHz 1MHz to 48MHz	100ppm to 250ppm
	QTCH570	5.00x7.00x1.40 4 Pad	XO	CMOS	1.8V, 2.5V 3.3V, 5.0V	400µA at 32.768kHz	32.768kHz 1MHz to 48MHz	100ppm to 250ppm

Ordering Information

Sample part number

QTCH350UD92-20.000

Q T CH 350 U D 92 - 20.000

Lead Finish (*)

T = Standard

S = Solder Dip

Package

570 = 5.0 x 7.0mm

350 = 3.2 x 5.0mm

230 = 2.5 x 3.2mm

Supply Voltage ():**

HC = +5.0Vdc at 15pF

U = +1.8Vdc to +3.3Vdc at 15pF

L = +3.3Vdc at 15pF

N = +2.5Vdc at 15pF

R = +1.8Vdc at 15pF

Tristate

D = Tristate

Output Frequency

Screening

Blank = Unscreened

M = Per MIL-PRF-55310, Level B

Frequency vs. Temperature Code:

87 = ± 150ppm at -20°C to +185°C

88 = ± 200ppm at -20°C to +175°C

89 = ± 250ppm at -40°C to +175°C

90 = ± 200ppm at -40°C to +185°C

91 = ± 250ppm at -40°C to +185°C

92 = ± 250ppm at -55°C to +185°C

93 = ± 200ppm at 0°C to +200°C

94 = ± 250ppm at 0°C to +200°C

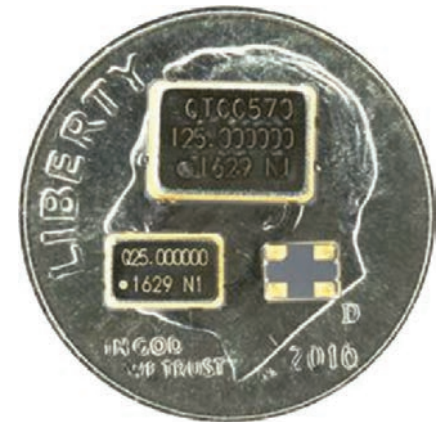
95 = ± 250ppm at -20°C to +200°C

96 = ± 250ppm at -40°C to +200°C

97 = ± 250ppm at -55°C to +200°C

98 = ± 250ppm at 0°C to +185°C

99 = ± 100ppm at -55°C to +150°C



(*) Standard finish is gold plating. Hot Solder Dip Sn60/Pb40 per MIL-PRF-55310 is optional for an additional cost.

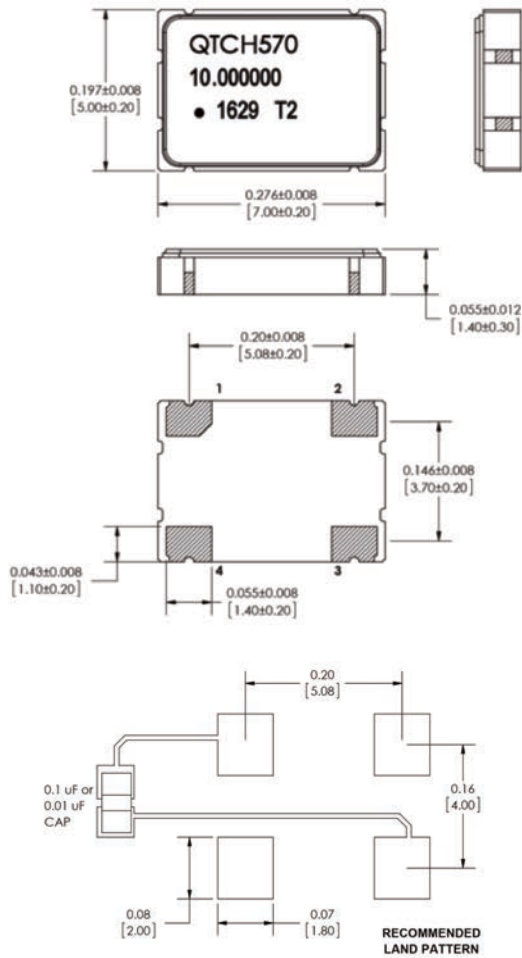
(**) U and R supply voltage options are unavailable for 32.768kHz.

Please contact Q-Tech for RTC (I²C), tighter stabilities, or higher temperatures.

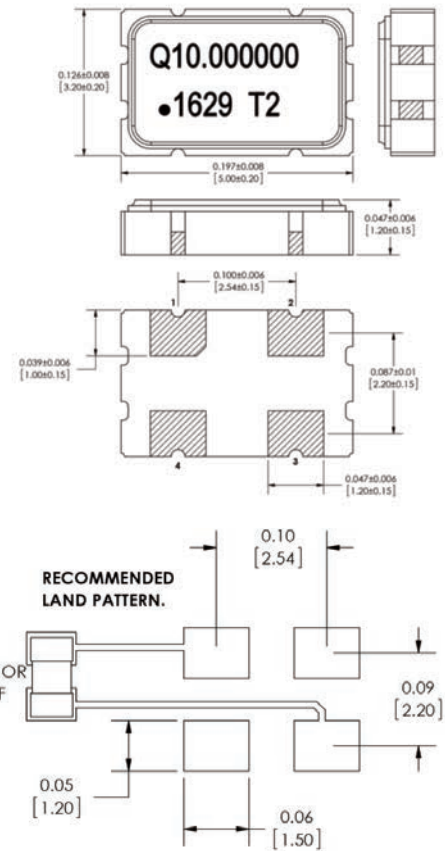




Q-TECH
CORPORATION

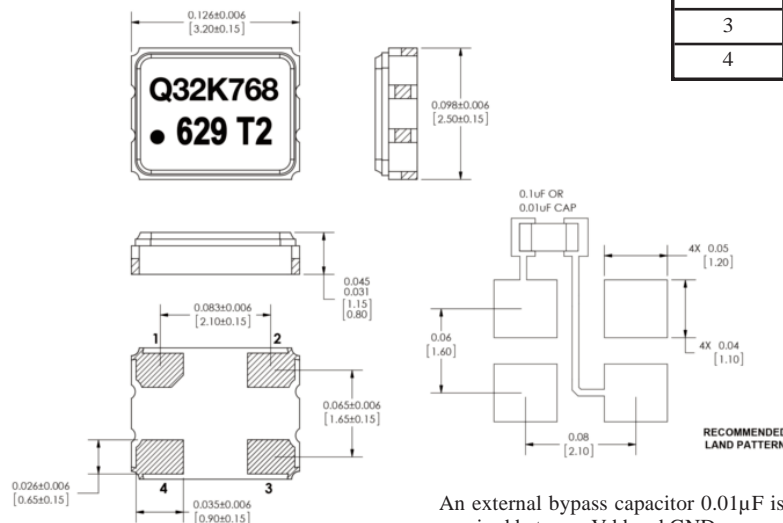


An external bypass capacitor 0.01μF is required between Vdd and GND



An external bypass capacitor 0.01μF is required between Vdd and GND

Pin No.	Function
1	TRISTATE
2	GND/CASE
3	OUTPUT
4	VDD



An external bypass capacitor 0.01μF is required between Vdd and GND