



Q-Tech Corporation

The World's Leading Manufacturer of High Reliability Hybrid Crystal Oscillators

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Model : QT70

Type: Crystal Oscillator

[Show Dimensions >>](#)



Pin Configuration

VCC	GND	OUT	CASE	ITP
5	44	47	44	N/A

Equivalent Military Designation:

N/A

[Freq. Designation >>](#)

Frequency Options

TTL	500 kHz to 66 MHz
CMOS	Not Available
HCMOS/ACMOS	500 Hz to 66 MHz
ECL/PECL	4 MHz to 80 MHz

Frequency Stability vs Temperature

Code	± %	± PPM	Temp.
1	.01	100	0 °C to +70 °C
3**	.0005	5	0 °C to +50 °C
4	.005	50	0 °C to +70 °C
5	.0025	25	-20 °C to +70 °C
6	.005	50	-55 °C to +105 °C
9	.005	50	-55 °C to +125 °C
10	.01	100	-55 °C to +125 °C
11	.005	50	-40 °C to +85 °C
12	.01	100	-40 °C to +85 °C

** Requires external tuning capacitors, for pad connections and for frequencies above 20 MHz, consult the factory
For frequency stability vs. temperature options not listed herein, request a custom part number.

Screened

[Output Logic](#)

Output Logic

Phase Noise

Factory Options

T	TTL
C	CMOS (Not Available)
HC	High Speed CMOS
AC	Advanced CMOS
L	Low Voltage, 3.3 V
E	10 K ECL
EH	10 KH ECL
EF	100 K ECL/300 K ECL
PE	+5 V ECL (PECL)
Z	Special CMOS*
D Tristate Output Option (add "D" as a suffix to the above listed options)	

* Output logic can drive up to 200 pF load with typical 6 ns rise & fall time (tr, tf).

Electrical Specifications

ITEM	TTL	CMOS	HC/ACMOS***	ECL
SUPPLY VOLTAGE	5 V ± 10%	N/A	5 V ± 10%**	-5.2 V std. for 10 K/10 KH output -4.5 V std. for 100 K/300 K output
SUPPLY CURRENT (Typical)	66 to 80 MHz: 80 mA 50 to 66 MHz: 40 mA 27 to 50 MHz: 25 mA 6.5 to 27 MHz: 12 mA .01Hz to 6.5 MHz: 20 mA	N/A	HC = 6 mA @ 10 MHz AC = 20 mA @ 35 MHz Special supply voltage or current available. Ultra low current for battery operation also available.	35 mA (typ) for 10 K
LOAD	> 60 MHz: 6 TTL < 60 MHz: 10 TTL	N/A	Typical ± 2 mA drive. Can drive 1 TTL load.	Standard ECL, designed for 20 ECL Loads.
SYMMETRY*	≥ 8 MHz: 60/40% < 8 MHz: 45/55%	N/A	≥ 10 MHz: 60/40% < 10 MHz: 45/55%	60/40%

* Optional symmetry selections are 45/55 or 47.5/52.5 Custom symmetry is also available upon request.

** Parts are available with supply range of 2.5 to 6 Volts.

*** Low voltage logic available, Vcc = 3.3 V ± 10%, Current = 12 mA @ 40 MHz, Drive capability = 15 pf

Ordering Information

Example **QT6VHC9M - 20.000 MHz**

