

# QC7A Series

## 5x7 4-Pad SMD Quartz Crystal Unit



### Features

- Low in height, suitable for thin equipment
- Ceramic package and metal lid assures high reliability
- Tight tolerance and stability available

### Applications

- High density applications
- Modem, communication and test equipment
- PMCIA, wireless applications
- Automotive applications

### General Specifications

Frequency Range	6.000 to 150.000MHz	
Mode of Oscillation	Fundamental	6.000 to 48.000MHz
	Third Overtone	40.000 to 150.000MHz
Frequency Tolerance at 25°C	±10 to ±30ppm (±30ppm standard)	
Frequency Stability over Temperature Range	See Stability vs. Temperature Table	
Storage Temperature	-55 to +125°C	
Aging per Year	±3ppm max.	
Load Capacitance $C_L$	10 to 32pF and Series Resonance	
Shunt Capacitance $C_0$	7.0pF max.	
Equivalent Series Resistance (ESR)	See ESR Table	
Drive Level	100µW typ.	
Insulation Resistance ( $M\Omega$ )	500 at 100Vdc ±15Vdc	

### Equivalent Series Resistance (ESR)

Frequency Range - MHz	$\Omega$ max.	Mode of Operation
6.000 to 10.000	110	Fundamental
10.100 to 12.000	60	
12.100 to 20.000	45	
20.100 to 48.000	30	Third Overtone
40.000 to 150.000	60	

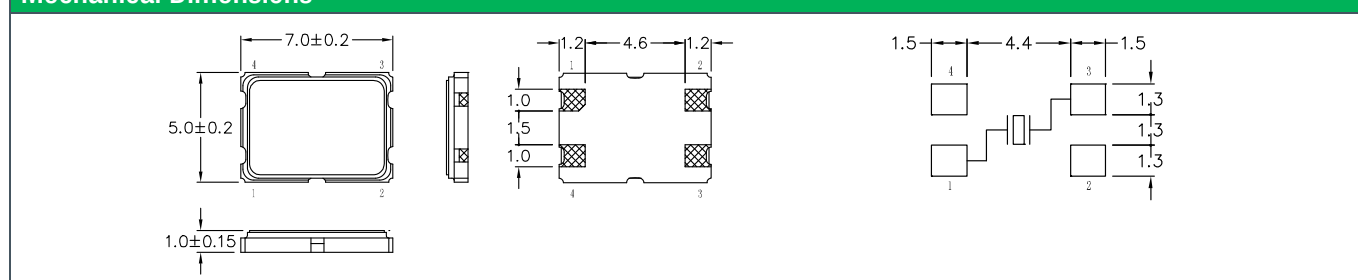
### Frequency Stability vs. Temperature

Operating Temperature	±10ppm	±20ppm	±30ppm	±50ppm	±100ppm
-20 to +70°C	○	○	○	○	○
-40 to +85°C	○*	○	●	○	○
-40 to +105°C	-	-	-	○	○
-40 to +125°C	-	-	-	-	○

\*Operating Temperature -30 to +85°C

● standard ○ available

### Mechanical Dimensions



### Part Numbering Guide

Qantek Code	Package	Nominal Frequency (in MHz)	Vibration Mode	Load Capacitance	Operating Temperature Range	Frequency Tolerance	Frequency Stability	Automotive Indicator	Packaging
Q = Qantek	C7A = 5x7 4-Pad SMD	7 digits including the decimal point (f.i.e. 12.0000)	F = AT-Fund	S = Series 08 = 8pF <b>12 = 12pF</b> 18 = 18pF 20 = 20pF etc.	A = -20 to +70°C <b>B = -40 to +85°C</b> C = -40 to +105°C D = -40 to +125°C	1 = ±10ppm 2 = ±20ppm <b>3 = ±30ppm</b> 5 = ±50ppm 0 = ±100ppm	1 = ±10ppm 2 = ±20ppm <b>3 = ±30ppm</b> 5 = ±50ppm 0 = ±100ppm	A = AEC-Q200	M = 250pcs Tape&Reel R = 1000pcs Tape&Reel

Example: QC7A12.0000F12B33R

bold letters = recommended standard specification



**QANTEK Technology Corporation**

Phone: +1 877-227-0440 (tollfree)

Fax: +1 877-227-0440 (tollfree)

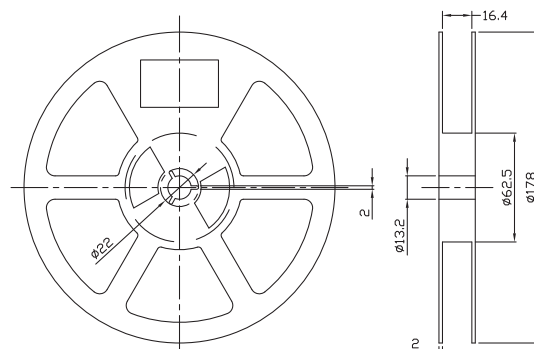
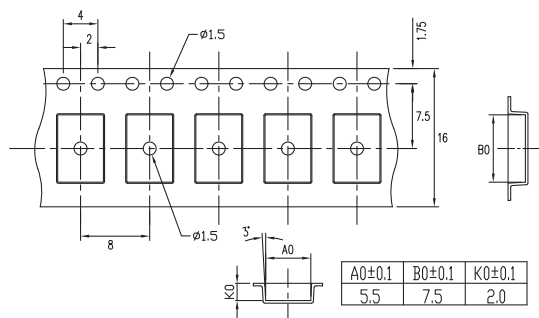
www.qantek.com

info@qantek.com

# QC7A Series

## 5x7 4-Pad SMD Quartz Crystal Unit

### Tape and Reel Dimensions



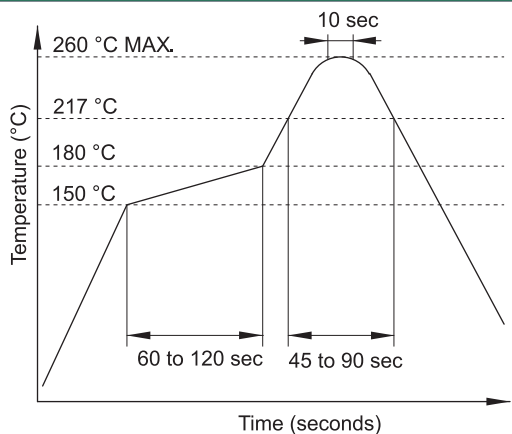
### Marking Code Guide

Contains frequency, Qantek manufacturing code, production code (month and year) and load capacitance.

Month Codes				Year Codes						Load Capacitance Code in pF			
January	A	July	G	2010	0	2011	1	2012	2	pF	PN Code	pF	PN Code
February	B	August	H	2013	3	2014	4	2015	5	12	A	20	F
March	C	September	I							18	B	22	G
April	D	October	J							8	C	30	H
May	E	November	K							10	D	32	I
June	F	December	L							16	E	S	S

*Example: First Line: 12.000 (Frequency) Second Line: QA1A (Qantek - January - 2011 - 12 pF)*

### Solder Reflow Profile



### Environmental Specifications

Mechanical Shock	MIL-STD-202, Method 213, C
Vibration	MIL-STD-202, Method 201 & 204
Thermal Cycle	MIL-STD, Method 1010, B
Gross Leak	MIL-STD-202, Method 112
Fine Leak	MIL-STD-202, Method 112

All specifications are subject to change without notice.



**QANTEK Technology Corporation**  
 Phone: +1 877-227-0440 (tollfree)  
 Fax: +1 877-227-0440 (tollfree)

www.qantek.com  
 info@qantek.com

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [qantek](#) manufacturer:*

Other Similar products are found below :

[QCL9.83040F18B23B](#) [QX14T50B10.00000B50TT](#) [QX14T50B48.00000B50TT](#) [QX8T50B18.43200B50TT](#) [QCS22.1184F18B23M](#)  
[QX14T50B18.43200B50TT](#) [QX8T50B1.843200B50TT](#) [QX14T50B7.372800B50TT](#) [QC5CB8.00000F18B23R](#) [QCL27.0000F18B23B](#)  
[QC5A10.0000F12B12M](#) [QCL14.31818F18B23B](#) [QX14T50B4.000000B50TT](#) [QX14T50B4.096000B50TT](#) [QX14T50B24.00000B50TT](#)  
[QX8T50B25.00000B50TT](#) [QX14T50B25.00000B50TT](#) [QX233A32.00000B15M](#) [QC5A12.0000F12B12M](#) [QCP914.31818F18B35R](#)  
[QCS24.5760F18B23M](#) [QCS10.0000F18B23M](#) [QX8T50B8.000000B50TT](#) [QC3CA29.4912F18B23M](#) [QX8T50B20.00000B50TT](#)  
[QCS3.68640F18B23M](#) [QX8T50B4.915200B50TT](#) [QX318A24.00000B15M](#) [QCS4.00000F18B23M](#) [QC6A8.00000F18B23M](#)  
[QC5CA8.00000F12B23M](#) [QCS32.0000F18B23M](#) [QC1627.1200F08B12M](#) [QC5CA8.00000F18B23M](#) [QC7A32.0000F12B12M](#)  
[QC7A19.6608F18B12M](#) [QC3224.0000F12B12M](#) [QCS4.91520F18B23M](#) [QC5A18.4320F12B12M](#) [QC5CA25.0000F12B23M](#)  
[QCL24.5760F18B23B](#) [QX733A16.00000B15M](#) [QCS6.00000F18B23M](#) [QX733A32.00000B15M](#) [QC3CA12.2880F12B23M](#)  
[QCS12.2880F18B23M](#) [QX733A25.00000B15M](#) [QC7A11.0592F12B12M](#) [QC7A6.00000F12B12M](#) [QC5A27.0000F18B12M](#)