

DATENBLATT / DATASHEET

Specification: QTTC-HC51U

Crystal Unit: HC-51/U

Date: 26.03.2009  
ROHS compliance



Metal housing: Resistance Weld  
Inert Gas N<sub>2</sub>/H<sub>2</sub>  
Laser Engraving

TABLE 1

ENCLOSURE	H/mm	CODE
HC 51/U	19,8	60

Scale 1:1

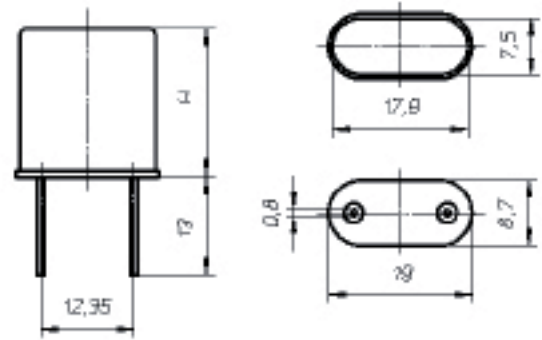


TABLE 2

0,8 ... 250 MHz		UNIT	CONDITION
Frequency range	0,8 - 250	MHz	
Crystal Cut	AT		
Enclosure	HC-51/U		
Mode	0,8 – 35 MHz 15 – 100 MHz 45 – 160 MHz 100 – 210 MHz 140 – 250 MHz		Fundamental Mode 3 <sup>rd</sup> Overtone 5 <sup>th</sup> Overtone 7 <sup>th</sup> Overtone 9 <sup>th</sup> Overtone
Load Capacitance	10 – 60 pF or Series	pF	
Shunt Capacitance	0,8 – 4 MHz: < 3,0 pF 4 – 10 MHz: < 5,0 pF 15 – 250 MHz: < 7,0 pF	pF	
Motional Capacitance			
Reksistance R <sub>R</sub>			see Table 5
Frequency Adjustment			see Table 3
Nominal / OCXO Temperature			see Table 4
Aging 1 <sup>st</sup> year	< 2,0 – 3,0	ppm	
Shock	100g / 6ms		
Vibration	10 g <sub>SS</sub> / 1,5 mm <sub>SS</sub> 50 – 500 Hz		
Δf / f	< 5	ppm	
ΔR/R	< 20%		



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TABLE 3

FREQUENCY ADJUSTMENT NOMINAL TEMPERATURE	FREQUENCY / MHz						CODE
	0,8 ~ 25	25 ~ 35	15 ~ 100	45 ~ 160	100 ~ 210	140 ~ 250	
Mode	1	1	3	5	7	9	
Frequency Adjustment / ppm	± 3		< 75 MHz ± 3	< 100 MHz ± 3			C1
	± 5	± 5	± 5	± 5	< 140 MHz ± 5	< 180 MHz ± 5	E1
	± 10	± 10	± 10	± 10	± 10	± 10	J1
	± 20	± 20	± 20	± 20	± 20	± 20	B2
	± 50	± 50	± 50	± 50	± 50	± 50	H2

TABLE 4

NOMINAL TEMPERATURE	
Temperature	Code
+40 ± 5 °C	405
+50 ± 5 °C	505
+55 ± 5 °C	555
+60 ± 5 °C	605
+65 ± 5 °C	655
+70 ± 5 °C	705
+75 ± 5 °C	755
+80 ± 5 °C	805
+85 ± 5 °C	855

TABLE 5

MAX. RESISTANCE R <sub>R</sub>	MODE	FREQUENCY / MHz	R <sub>MAX</sub> / Ohm
	1	0,8 – 1,0	600
		1,0 – 1,3	400
		1,3 – 1,6	200
		1,6 – 3,0	150
		3,0 – 6,0	80
		6,0 – 15	40
		15 – 35	30
	3	15 – 100	30
		5	45 – 160
	7	100 – 210	100
		9	140 – 250

ORDERING CODE <sup>(1)</sup>	FREQUENCY [MHz]	ENCLOSURE CODE: TABLE 1	MODE: 1: FUND. 3,5,7,9: OT TABLE 2	LOAD CAP. : 00: SERIES 32: 32 pF TABLE 2	ADJ. TOLERANCE CODE: TABLE 3	NOMINAL TEMPERATURE CODE: TABLE 4	SHUNT CAPACITANCE 25: 2,5 pF TABLE 2
	12,800	60	1	32	J1	705	25

<sup>(1)</sup> Other Specification on request