DATE：June 15, 2023

产品规格书

SPECIFICATION FOR APPROVAL

RoHS Compliant

用户名称	CUSTOMER：	**Quartz 1**
产品描述	DESCRIPTION：	Monolithic Crystal Filter UM-5*2 45.00MHz
产品部品号	MANUFACTURER PART NO.：	FT45M20B
用户部品号	CUSTOMER PART NO：	
使用于机型	USED IN MODEL：	

承　　认　　APPROVAL		
工程部 TECHNOLOGY DEPT.	品质部 QUALITY DEPT.	采购部 PURCHASING DEPT.

深圳市炬烜科技有限公司

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1. QUARTZ CRYSTAL UNIT SPECIFICATION

1. General

1.1 Model Name :	FT45M20B
1.2 Holder type :	UM-5*2

2. Electrical Specification :

2.1 Frequency:	45.000MHz
2.2 Mode of Oscillation	AT Fundamental
2.3 Pass Band Width :	±10.0KHz min（at 3dB）
2.4 Stop Band Width:	±75KHz max（at 40dB）
2.5 Pass Band Ripple :	1.0dB max
2.6 Insertion Loss :	3.0dB max
2.7 Attenuation Guarantee :	90dB min（f0±910KHz）
2.8 Terminating Impedance :	IN：910Ω//2.5pF
	OUT：910Ω//2.5pF
	Coupling capacitance(C2)：5.0pF
2.9 Insulation resistance :	More than 500M ohms at DC 100V
3. Operable temperature range :	-20℃ To +70℃
4. Storage temperature range :	-40℃ To +85℃

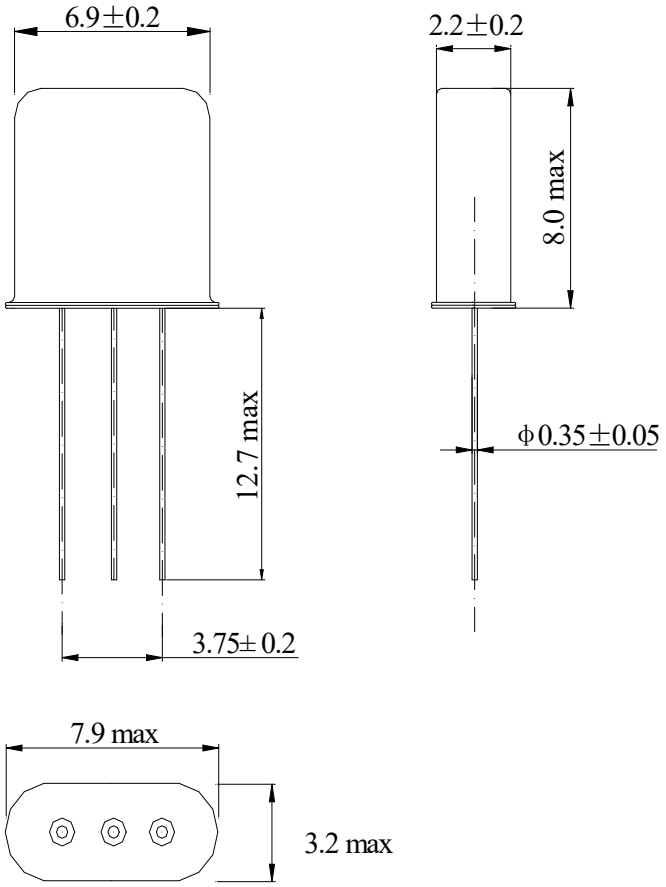
4. Mechanical Data

4.1 Sealing Test :	Reduced Pressure (260mmHg of mercury)
5. Dimensions and marking :	Refer to page. 3

MARKING & DIMENSIONS

*Appearance：Mark Shall Be Clear, Appearance Shall Be Smooth And No Damage.

*Dimensions：Unit：mm



*Marking should be printed as following:

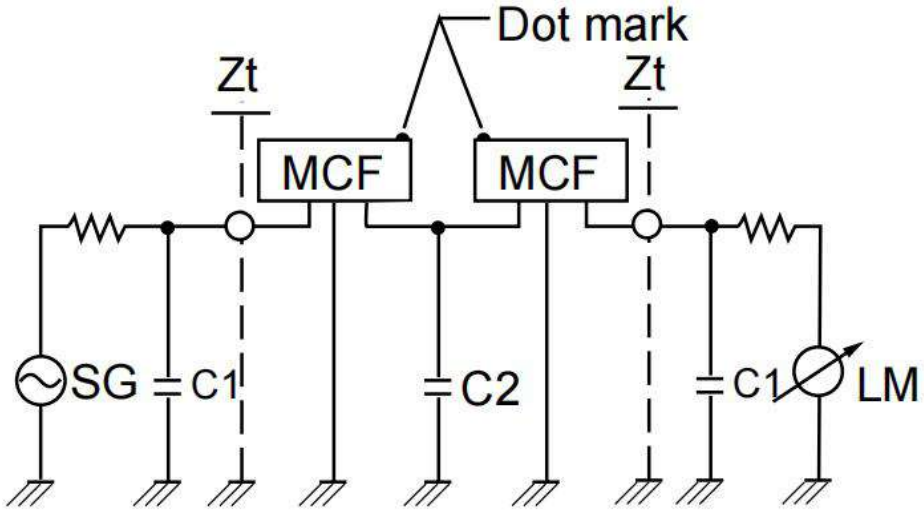
Logo, Nominal Frequency

Logo：FT

Nominal Frequency：

Marking: Laser marking or Ink marking.

TEST CIRCUIT



4-POLE MCF
Zt: Terminating Impedance

6.MECHANICAL/ENVIRONMENTAL CHARACTERISTICS

NO.	ITEM	SPECIFICATIONS
6.1	***Resistance to Cold***	The units should satisfy its frequency and resistance specifications stated in Table 1 after being subjected to stand at -40±3℃ for 2 hours. The units are then allowed to stand at room temperature for approx 2 hours before checking.
6.2	***Resistance to Heat***	The units should satisfy its frequency and resistance specifications stated in Table 1 after being subjected to stand at 100±2℃ for 2 hours. The units are then allowed to stand at room temperature for approx 2 hours before checking.
6.3	***Temperature Cycle***	The units should satisfy its frequency and resistance specifications stated in Table 1 after the units are subjected to stand in a Low Temperature Chamber at -40±3℃ for 30 minutes and to stand in a High Temperature Chamber at 100 ±2℃ for 30 minutes, with 2 to 3 minutes standby at room temperature in between the chamber transfers. This consist of one cycle; and units are subjected continuously for 5 cycles. After cycling, the units are allowed to stand at room temperature for approx 2 hours before checking.
6.4	***Aging***	The units should satisfy its frequency and resistance specifications stated in Table 1 after the units are subjected to stand 720 (30 days) ±12 hours in an 85±3℃ chamber. The units are allowed to stand at room temperature approx 2 hours before checking.
6.5	***Resistance to Damp***	The units should satisfy its frequency and resistance specifications stated in Table 1 after the units are subjected to stand in the test chamber capable of maintaining 60±2℃ temperature and 90 to 95%(RH) relative humidity for 500 hours. The units are then allowed to stand for approx 2 hours in room temperature before checking
6.6	***Bending Strength of Lead Wire Termination***	The unit's lead wire should withstand a weight of 450g in mass suspended from its original draw-out axis, and turning the body at a bending rate of 2 to 3 secs. until it IS approx 90° from the original axis；and returning back to its original position at the same bending rate. After this, the same method is repeated on the opposite 90° position. There should be no abnormalities detected on the unit.

6.7	***Tensile Strength Termination***	The units should withstand a tensile force applied to the termination in the direction of its draw-out axis of up to 900g maintained as is for 30±5 seconds. There should be no abnormalities detected on the unit.
6.8	***Solder ability***	Under JIS C 5033 , at least 90% of the lead wire periphery surface is covered with new solder up to the point where it is dipped on a molten solder.
6.9	***Resistance to Soldering Heat***	The units are measured for its frequency and resistance in accordance with Table 1 after immersion into molten solder with a temperature of 350±10℃ for 3 to 4 seconds and at a depth up to a point 2.0 to 2.5 mm from the base root.
6.10	***Dropping Test***	● Unit Drop Test The units are measured for its frequency and resistance in accordance with Table 1 after allowing the units to fall freely from 20 cm of height 3 times on a firm wood . ● Shipping Carton Drop Test The units are measured for its frequency and resistance in accordance with Table 1 after dropping the units packaged inside a shipping carton box (randomly positioned) from a 50 cm height in each planar sides of the carton on a concrete floor.
6.11	***Vibration Test***	The units are measured for its frequency and resistance in accordance with Table 1 after subjecting to 2 hours of vibration with 1.5 mm_{p-p} amplitude with 10-55-10Hz frequency sweep within 1 minute. Three perpendicular plane (axes) of vibration are available; however each unit is allowed to vibrate in only one plane, thus each plane requires approx 1/3 of the total units.

TABLE 1	
Electrical Specification	Should satisfy stated in 2.3 2.4 2.5 2.6
	Should satisfy stated in 2.7 2.10