



深圳市帝国科技有限公司

SHENZHEN DIGUO TECHNOLOGY CO.,LTD

樣品承認書

SAMPLE APPROVAL SHEET

CUSTOMER:

SIZE UP:

PART NO:ZTT

NUMBER:

DATE:

承認後請寄回一份

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承認結果 CONCLUSION	客戶簽名 SIGNATURE	客戶承認章 STAMP	日期 DATE	備注 REMARK
合格 ACCEPT				
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深圳市帝国科技有限公司 电话 0755-27881119

E-mail:dgkjiky.com 网址: <http://www.dgkjly.com>

# SPECIFICATION OF CERAMIC RESONATOR

1.790~60.000 MHZ

1. PART NO. : MT

SPECIFICATION No.: QJ/A72•16•9801

2. ABSOLUTE MAXIMUM RATINGS

OSCILLATING FREQUENCY : 1.790~60.000MHz±0.3%

MAXIMUM APPLIED DC VOLTAGE : 5 0 V

LOWER MOST WORKING VOLTAGE : < 3V

MAXIMUM LOAD VOLTAGE : 20 V p-p

OPERATING TEMPERATURE RANGE : -20°C TO +85°C

FREQUENCY DRIFT VERSUS TEMPERATURE : LESS THAN ±0.3%

STORAGE TEMPERATURE RANGE : 25 ±5°C

FREQUENCY AGING (FOR 10 YEARS) : LESS THAN ±0.3%

RESONANT IMPEDANCE (Ω) : 30 Ω MAX.

CAPACITANCE (C) : 3 0 PF ± 20%

3. ENVIRONMENTAL SPECIFICATIONS

ELECTRICAL CHARACTERISTICS CHANGE OF THE RESONATOR SUPPLIED TO THE FOLLOWING TESTS MUST BE LESS THAN VALUES SHOWN IN TABLE.1 WITH THE EXCEPTION OF ITEM 3-7.

T A B L E . 1

CHARACTERISTICS	MAXIMUM CHANGE
OSCILLATING FREQUENCY F <sub>OSC</sub> .	±0.25% MAX.
RESONANT IMPEDANCE R <sub>o</sub> .	±10Ω MAX.
CAPACITANCE Cd .	±10% MAX.

3-1 LOW TEMPERATURE STORAGE: STORED IN -20°C FOR 100 HOURS, AND TAKEN OUT TEMPERATURE FOR 2 HOUR BEFORE MEASUREMENT.

3-2 HIGH TEMPERATURE STORAGE: STORED IN +85°C FOR 100 HOURS, AND THEN TAKEN OUT TO ROOM TEMPERATURE FOR 2 HOUR BEFORE MEASUREMENT.

3-3 THERMAL SHOCK TEST : SUBMIT THE RESONATOR TO 10 CYCLES OF THE FOLLOWING SEQUENCE OF CONDITIONS IN AIR;

-20°C FOR 30 MINUTES

+85°C FOR 30 MINUTES

AND THEN TAKE OUT TO ROOM TEMPERATURE FOR 2 HOUR BEFORE MEASUREMENT

3-4 VIBRATION TEST : MOUNT FIXTURE TO A VIBRATION TABLE AND SUBJECT IT TO THE FOLLOWING CONDITIONS IN EACH OF 3 MUTUALLY PERPENDICULAR PLANES.

AMPLITUDE : 1 .52 mm DISPLACEMENT

FREQUENCY : 10 TO 55 Hz, RATE OF CHANGE 1.5 Hz / S

DURATION : 1 HOUR IN EACH PLANE

3-5 SHOCK TEST : MOUNT THE RESONATOR BODY ON THE SHOCK PLATFORM AND SUBJECT IT TO THE FOLLOWING 3 SHOCK PULSES IN EACH DIRECTION OF 3 MUTUALLY PERPENDICULAR PLANES. (18 SHOCK PULSES)

3-6 HUMIDITY TEST : STORED IN 95% AT  $40 \text{ }^{\circ}\text{C} \pm 2^{\circ}\text{C}$  FOR 100 HOURS, AND THEN TAKEN OUT TO ROOM TEMPERATURE FOR 2 HOUR BEFORE MEASUREMENT.

3-7 SOLDERABILITY: DIPPED IN  $230^{\circ}\text{C}$  MELTED SOLDER BATH TO A POINT 1.5mm FROM RESONATOR BODY FOR 3 SECONDS.

SPECIFICATION

THE TERMINALS SHALL BE AT LEAST 95% COVERED BY SOLDER COATING.

3-8 SOLDERING TEST: DIPPED IN  $240^{\circ}\text{C} \pm 5^{\circ}\text{C}$  MELTED SOLDER TO A POINT 2.0/0.5mm FROM RESONATOR BODY FOR  $10 \pm 1$  SECONDS (OR  $300^{\circ}\text{C} \pm 10^{\circ}\text{C}$  MELTED SOLDER TO A POINT 2.0 / 1.5 mm FROM RESONATOR BODY FOR  $3 \pm 1$  SECONDS), AND THEN TAKEN OUT TO ROOM TEMPERATURE FOR 2 HOUR BEFORE MEASUREMENT.

3-9 LEAD RESTRAINT:

3-9-1 TERMINAL TENSILE STRENGTH: SPECIFIED FORCE OF 4.9N APPLIED TO THE TERMINAL IN THE DIRECTION OF AXIS OF TERMINATION.

3-9-2 TERMINAL BENDING STRENGTH: A SPECIFIED LOAD OF 2.45N SUSPENDED FROM.

THE TERMINAL , THEN SLOWLY INCLINED THE RESONATOR BODY SO AS TO BEND.

THE TERMINAL THROUGH  $90^{\circ}$  , AND THEN RETURN TO NORMAL POSITION. THE CONSECUTIVE BE DONE IN THE OPPOSITE DIRECTION.

4. PACKAGE FORM

MINIMUM PACKAGING UNIT : 500PCS. (A VINYL BAG )

SHIPPING CARTON ( SMALL ):  $500 * 4 = 2,000$ PCS

SHIPPING CARTON ( LARGE ):  $2000 * 20 = 40,000$ PCS (27cm\*27cm \*22.5cm )

5. MEASUREMENT CIRCUIT

