



CHEQUERS ELECTRONIC (CHINA) LIMITED
捷嘉電子(中國)有限公司

CERAMIC TRAP SPECIFICATION

PART NO.: XT01MT
<RoHS Compliant>

Part no.	:	XT01MT
Printed on	:	30-Jul-07
Prepared	:	Eugenia
Ver. Ctrl.	:	073007/F
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1. Scope

This specification shall cover the characteristics of the ceramic trap XT01MT.

2. Specification no.: 2.833.200

3. Part no.: XT01MT

4. Electrical specification

4-1	Nominal Centre frequency (fn 1)	5.5MHz
	Nominal Centre frequency (fn 2)	6.0MHz
	Nominal Centre frequency (fn 3)	6.5MHz
4-2	Trap Attenuation (at fn1/fn2/fn3)	30dB min.
4-3	30dB Attenuation BW	50kHz min
4-4	Spurious Response (0~5.0MHz)	0.5dB max
4-5	Temperature characteristics (-25°C ~ +85°C)	±2.0%
4-6	Rated voltage	DC 50V (1 minute)
4-7	Insulation resistance	100MΩ min.
	Operating temperature	-25°C ~ +85°C
4-8	Withstand Voltage	50VDC (1 minute)
4-9	Storage Temperature	-40°C ~ +85°C
4-10	Input / output impedance	1KΩ

*Center Frequency (f_o): Defined as center of 30dB Bandwidth.Reference level (0dB) at 1MHz point.

**Input and output terminals are interchangeable.

5. Physical characteristics

	Test item	Condition of test	Performance requirement
5-1	Random drop	Trap shall be measured after 3 times of random drops from the height of 1 meter on concrete floor.	No visible damage and the measured values shall meet Table 1.
5-2	Vibration	Trap shall be measured after being applied with vibration (amplitude: 1.5mm, frequency: 10Hz to 55Hz) for 2 hours in each of the 3 perpendicular directions.	The measured values shall meet Table 1.
5-3	Resistance to soldering heat	Lead terminals are immersed up to 1.5mm from the trap's body in solder bath 260°C±5°C for 5 seconds ± 1 second. Then the resonator shall be measured after being placed in room temperature for 1 hour.	
5-4	Terminal strength	<ol style="list-style-type: none">After a weight of 1 Kg is applied to each terminal in axial direction for 10 seconds, the resonator shall be measured.After lead terminals are fixed at 2mm from the trap's body. They shall be folded up to 90° from their axial direction and folded back to -90°, then folded back to their axial direction. The speed of folding shall be 3 seconds.	No visible damage and the measured values shall meet Table 1. No cutting off shall be visible.

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6. Environmental characteristics

	Test item	Condition of test	Performance requirement
6-1	High temperature	After being placed in a chamber (+85°C±2°C) for 100 hours, the trap is measured after being placed in room temperature for 1 hour.	The measured values shall meet Table 1.
6-2	Low temperature	After being placed in a chamber (-55°C±2°C) for 100 hours, the trap is measured after being placed in room temperature for 1 hour.	The measured values shall meet Table 1.
6-3	Humidity	After being placed in a chamber with a humidity of 90% to 95% RH and a temperature of +60°C±2°C for 100 hours, the trap is measured after being placed in room temperature for 1 hour.	The measured values shall meet Table 1.
6-4	Heat shock	After being kept at room temperature, trap shall be placed at a temperature of -25°C. After 30 minutes at this temperature, the trap is immediately placed at a temperature of +85°C. After another 30 minutes at this temperature, the trap is placed under -25°C again. The above processes are counted as 1 cycle. After 5 cycles, the trap shall be measured after being placed in room temperature for 1 hour.	The measured values shall meet Table 1.

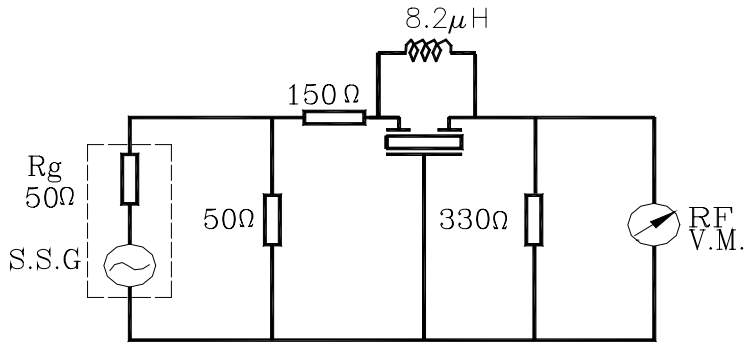
Table 1

Measurements	Requirements
Frequency variation at max. att. point	±0.5% max
Trap Attenuation	28dB min
Referenced from the initial measurements.	

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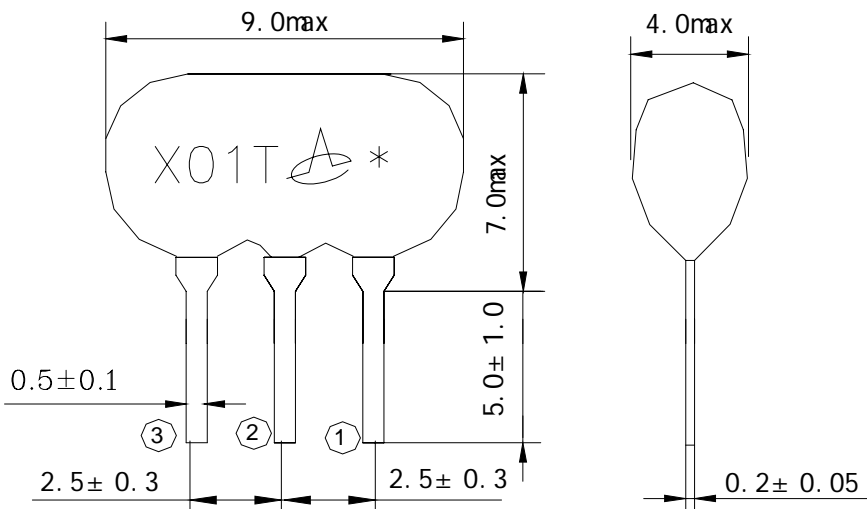
8. Test circuit

- 8-1 Oscillating frequency :
 8-2 Equivalent circuit constants : Network Analyzer HP87510A or equivalent
 8-3 Measuring condition : Temperature: $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$
 Humidity: $55\% \pm 5\% \text{ RH}$
 If require : Temperature: 5°C to 35°C
 Humidity: 45% to 65% RH



C2 = 10pF (Including stray capacitance and input capacitance of RF Voltmeter)

9. Dimension of XT01MT



INPUT GROUND OUTPUT
 *: EIAJ MONTHLY CODE

Unit: mm

EIAJ DATE CODE

Month	2005 / 2007 / 2009	2006 / 2008 / 2010
Jan	A	N
Feb	B	P
Mar	C	Q
Apr	D	R
May	E	S
Jun	F	T
Jul	G	U
Aug	H	V
Sep	J	W
Oct	K	X
Nov	L	Y
Dec	M	Z

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