

规格书编号

SPEC NO :

产品规格书

SPECIFICATION

CUSTOMER 客户: _____
PRODUCT 产品: _____ CERAMIC FILTER _____
MODEL NO 型号: _____ LTCS10.7MS3 _____
PREPARED 编制: _____ LEO _____ CHECKED 审核: _____ YORK _____
APPROVED 批准: _____ LIUMING _____ DATE 日期: _____ 2011-02-15 _____

客户确认 CUSTOMER RECEIVED:		
审核 CHECKED	批准 APPROVED	日期 DATE

无锡市好达电子有限公司
Shoulder Electronics Limited

1. SCOPE

This specification shall cover the characteristics of the ceramic filter with the type LTCS10.7MS3.

2. PART NO.

PART NUMBER	PREVIOUS PART NUMBER
LTCS10.7MS3	
CUSTOMER PART NO	SPECIFICATION NO

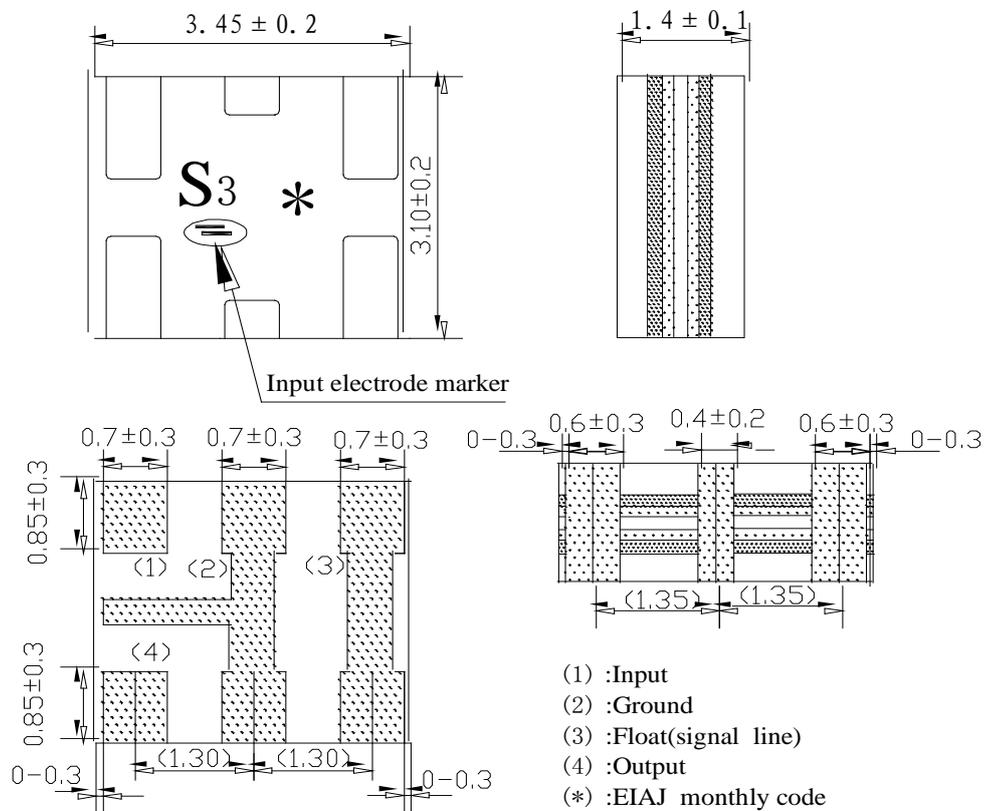
3. OUTLINE DIMENSIONS AND MARK

3.1 Appearance: No visible damage and dirt.

3.2 Construction: SMD ceramic packaging.

3.3 The products conform to the RoHS directive and national environment protection law.

3.4 Dimensions and mark


4 ELECTRICAL SPECIFICATIONS
4.1 RATING

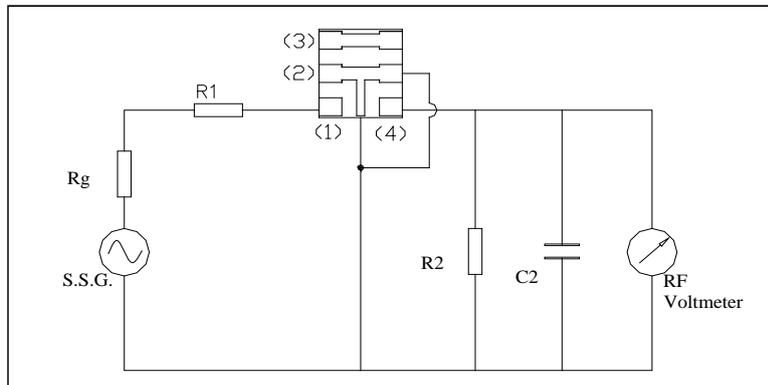
Items	Content
Withstanding Voltage (V) max.	50 (DC, 1min)
Insulation Resistance Ri, (MΩ) min.	100 (10V, 1min)
Operating Temperature Range (°C)	-20~+80
Storage Temperature Range (°C)	-40~+85

4.2 ELECTRICAL SPECIFICATIONS

Items	Content
Center Frequency(fo)(MHz)	10.700±0.030
3dB Bandwidth(kHz)	180±40
20dB Bandwidth(kHz) max	470
Insertion Loss (dB) (at minimum loss point)	4.5±2.0
Ripple (dB) max (within 3dB Bandwidth)	1.0
Spurious Response (dB) min(9MHz-12MHz)	30
Input/Output Impedance(Ω)	330
Temp. Characteristic	±0.5% (-20°C to 80°C)

5. TEST
5.1 Test Conditions

Parts shall be tested under the condition (Temp.: 20±15°C, Humidity : 65±20% R.H.) unless the standard condition(Temp.: 25±2°C, Humidity : 65±5% R.H.) is regulated to measure.

5.2 Test Circuit


R1=280 Ω (1±5%), R2=330Ω(1±5%), Rg=50Ω

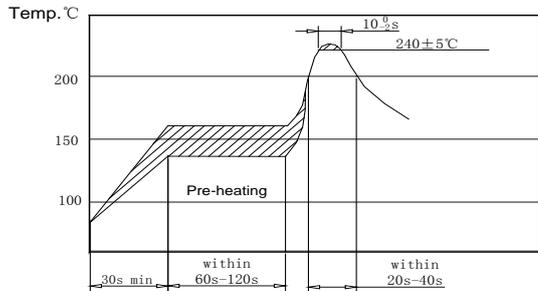
C2=10pF(Including stray capacitance and capacitance of RF Voltmeter)

S.S.G: Output Voltmeter

①:Input ②:Ground ③:Float ④:Output

6. ENVIRONMENTAL TEST

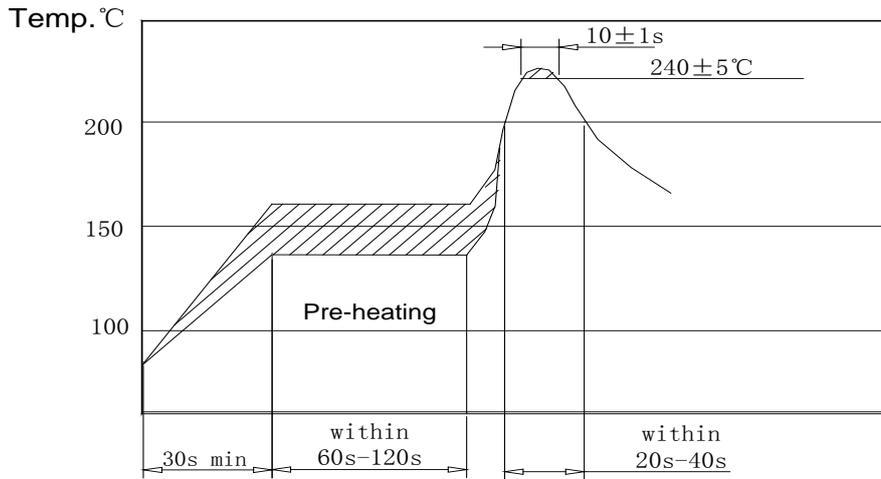
No.	Item	Condition of Test	Performance Requirement
6.1	Humidity	Subject the filter at 40±2°C and 90%-95% R.H. for 96h, Filter shall be measured after	It shall fulfill Table 1.

		being placed in natural conditions for 1h.							
6.2	High Temperature Exposure	Subject the filter to $85 \pm 2^\circ\text{C}$ for 96h, Filter shall be measured after being placed in natural conditions for 1h.	It shall fulfill Table 1.						
6.3	Low Temperature Exposure	Subject the filter to $-40 \pm 2^\circ\text{C}$ for 96h, Filter shall be measured after being placed in natural conditions for 1h.	It shall fulfill Table 1.						
6.4	Temperature Cycling	After temperature cycling of blow table was performed 5 times, Filter shall be measured after being placed in natural conditions for 1h.	It shall fulfill Table 1.						
		<table border="1"> <thead> <tr> <th>Temperature</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>$-20 \pm 3^\circ\text{C}$</td> <td>$30 \pm 3 \text{ min}$</td> </tr> <tr> <td>$80 \pm 3^\circ\text{C}$</td> <td>$30 \pm 3 \text{ min}$</td> </tr> </tbody> </table>		Temperature	Time	$-20 \pm 3^\circ\text{C}$	$30 \pm 3 \text{ min}$	$80 \pm 3^\circ\text{C}$	$30 \pm 3 \text{ min}$
		Temperature		Time					
$-20 \pm 3^\circ\text{C}$	$30 \pm 3 \text{ min}$								
$80 \pm 3^\circ\text{C}$	$30 \pm 3 \text{ min}$								
6.5	Vibration	Subject the filter to vibration for 2h.Each in x y and z axis with the amplitude of 1.5mm, The frequency shall be varied uniformly between the limits of 10Hz-55Hz-10Hz and then filter shall be measured.	It shall fulfill Table 1.						
6.6	Mechanical Shock	Filter shall be measured after 3 times random dropping from the height of 1m on the wooden plate.	No visible damage and it shall fulfill Table 1.						
6.7	Soldering Test	<p>Passed through the reflow oven under the following condition, and left at room temp. for 24 hours before measurement.</p> 	It shall fulfill Table 1.						

(to be continued)

6. ENVIRONMENTAL TEST

No.	Item	Condition of Test	Performance Requirements
6.8	Solderability	Dipped in $235^\circ\text{C} \pm 5^\circ\text{C}$ solder bath for $3\text{s} \pm 0.5\text{s}$ with rosin flux (25wt% ethanol solution.)	The terminals shall be at least 95% covered by solder.
6.9	Board Bending	Mount on a glass-epoxy board(width =50mm, thickness=1.6mm),then bend	Mechanical damage such as

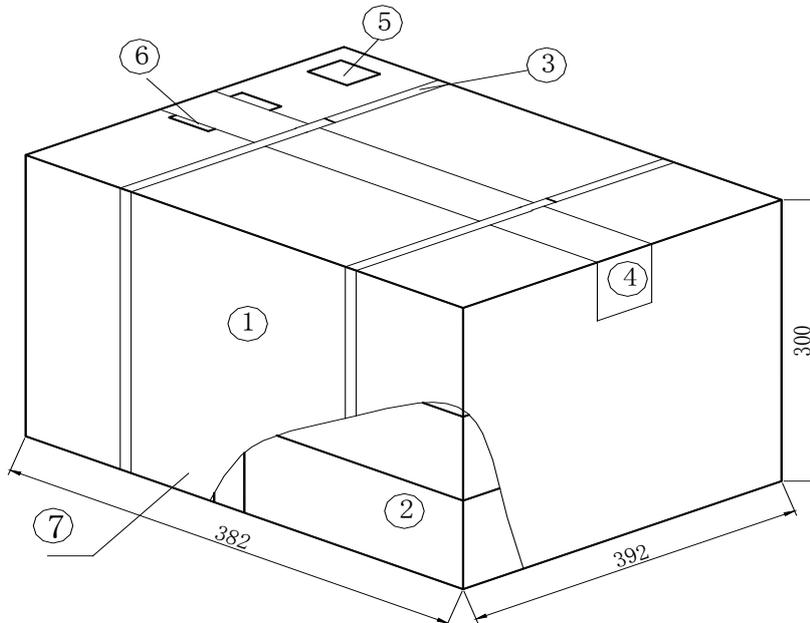


8. PACKAGE

To protect the products in storage and transportation, it is necessary to pack them (outer and inner package) .

8.1 On paper pack, the following requirements are requested.

8.1.1 Dimensions and Mark



NO.	Name	Quantity
①	Package	1

②	Inner Box	12
③	Belt	2.9 m
④	Adhesive tape	1.2 m
⑤	Label	1
⑥	Certificate of approval	1
⑦	Company name ,Address etc.	

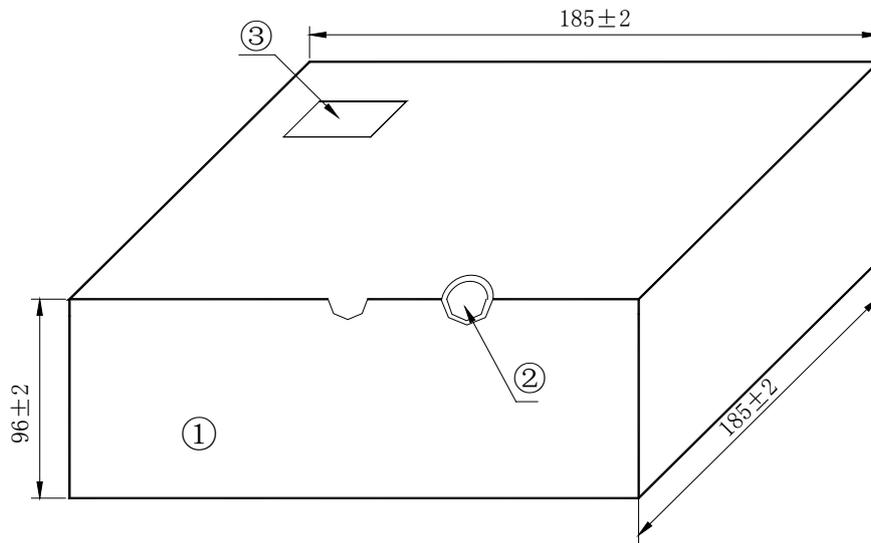
8.1.2 Section of package

Package is made of corrugated paper with thickness of 0.8cm. Package has 12 inner boxes, each box has 5 reels(each reel for plastic bag)

8.1.3 Quantity of package

- Per plastic reel 1000 pieces of piezoelectric ceramic part
- Per inner box 5 reels
- Per package 12 inner boxes
- (60000 pieces of piezoelectric ceramic part)

8.1.4 Inner Box Dimensions

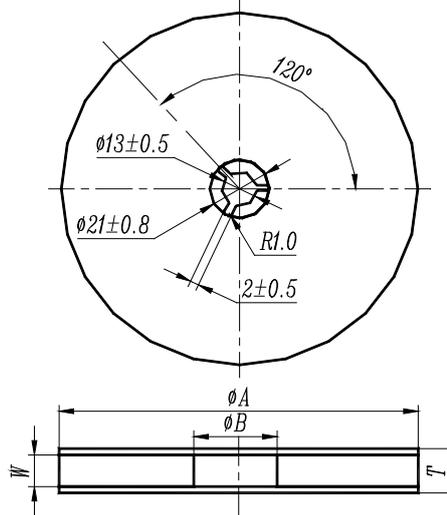


NO.	Name	Quantity
①	Inner Box	1
②	QC Label	1

③	Label	1
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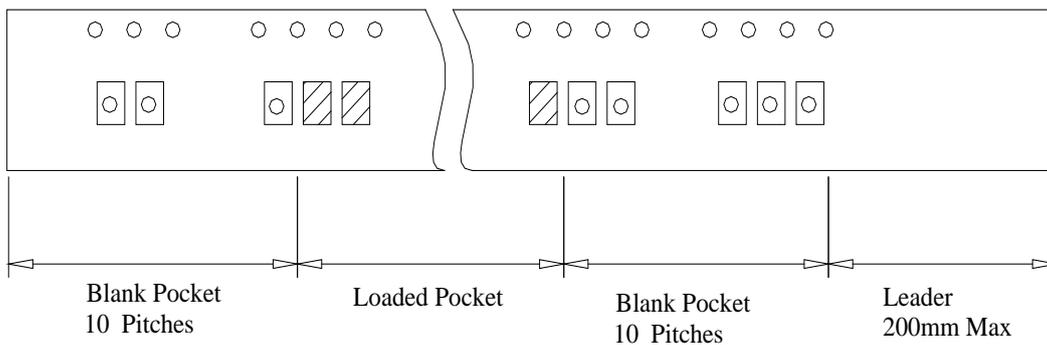
8.2 On reel pack, the following requirements are requested.

8.2.1 Reel Dimensions

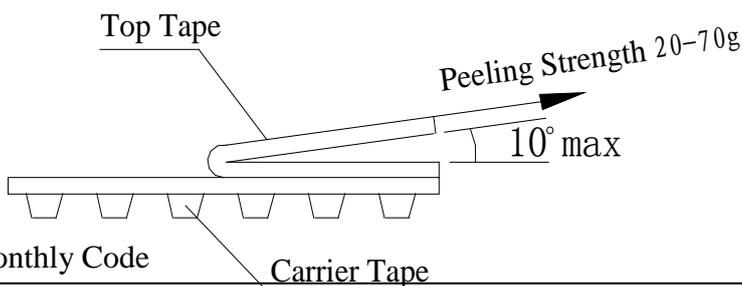


ϕA	ϕB	W	T	Pieces per reel	Carrier tape size
180 ± 3	60min	12.4min	19.4max	1000typ.	12

8.2.3 Packing Method Sketch Map



8.2.4 Test Condition Of Peeling Strength



9. EIAJ Monthly Code

2005 / 2007 / 2009		2006 / 2008 / 2010	
MONTH	CODE	MONTH	CODE
JAN	A	JAN	N
FEB	B	FEB	P
MAR	C	MAR	Q
APR	D	APR	R
MAY	E	MAY	S
JUN	F	JUN	T
JUL	G	JUL	U
AUG	H	AUG	V
SEP	J	SEP	W
OCT	K	OCT	X
NOV	L	NOV	Y
DEC	M	DEC	Z

10. OTHER

10.1 Caution

10.1.1 Don't apply excess mechanical stress to the component and terminals at soldering. Do not use this product with bend.

10.1.2 Do not clean or wash the component for it is not hermetically sealed.

10.1.3 Do not use strong acidity flux, more than 0.2wt% chlorine content, in flow soldering.

10.1.4 Don't be close to fire.

10.1.5 This specification mentions the quality of the component as a single unit. Please insure the component is thoroughly evaluated in your application circuit

10.1.6 Expire date (Shelf life) of the products is 12 months after delivery under the conditions of a sealed and an unopened package. Please use the products within 12 months after delivery. If you store the products for a long time (more than 12 months), use carefully because the products may be degraded in the solder-ability or rusty. Please confirm solder-ability and characteristics for the products regularly.

10.1.7 Exposure components under soldering condition that is exceeding our recommendation will increase the failure dangerous.

10.1.8 Please contact us before using the product as automobile electronic component.

10.2 Notice

10.2.1 Please return one of these specifications after your signature of acceptance.

10.2.2 When something gets doubtful with this specifications, we shall jointly work to get an agreement.