

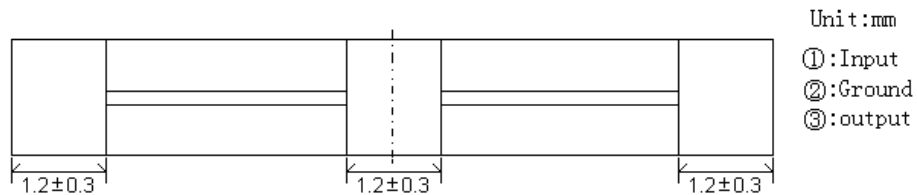
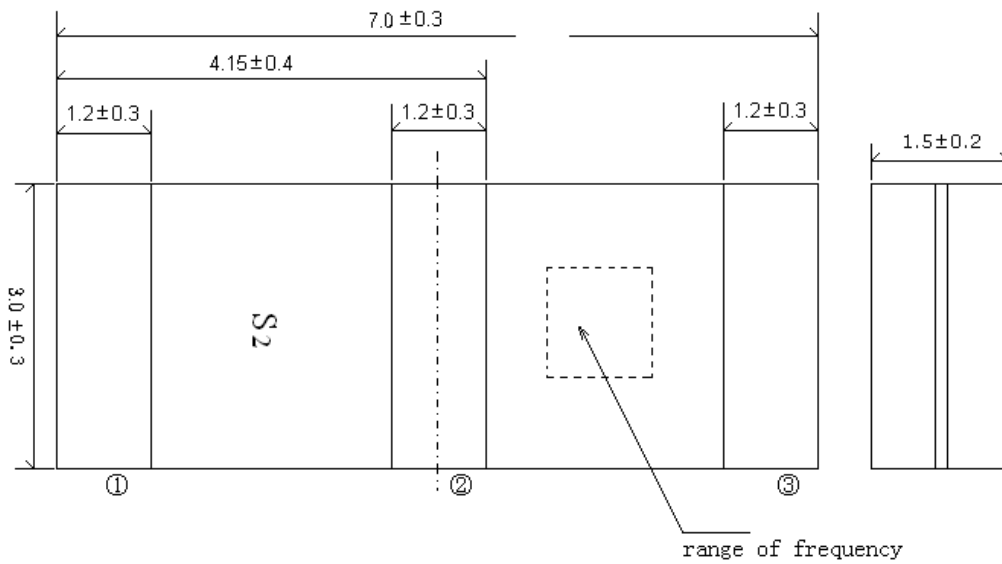
1. Features and Applications

The LTCA10.7MS2 filters are small, high performance and very thin (1.5mm) chip devices consisting of 2 ceramic elements for communication equipment. They are designed on MgTiO₃ ceramic cap package. The filters exhibit flat GDT characteristic in pass band. The filters are recommended for digital communication applications and are perfect in hand held cellular phones, pocket cordless phones, etc.

2. Appearances and Dimensions

Appearances: smooth surface and clear mark. No visible damage and dirt.

Dimensions: According to Figure 1.



3. Electrical Characteristics

Items	Requirements
Center Frequency(f_0)	A:10.700MHz± 30kHz max. B:10.670 MHz± 30kHz max. C;10.730 MHz± 30kHz max. D;10.640 MHz± 30kHz max E;10.760 MHz± 30kHz max The center point of 3db band width is defined as the center frequency and identified by the letters:A,B,C,D or E
3dB Bandwidth	230 ±50kHz
20 dB Bandwidth	570kHz max
Insertion loss(at f_n)	6.0dB
Ripple(within 3dB Bandwidth)	1.0dB max
Spurious Response(9MHz-12MHz)	30dB min
Input/Output Impedance	330 Ω

4. Rating

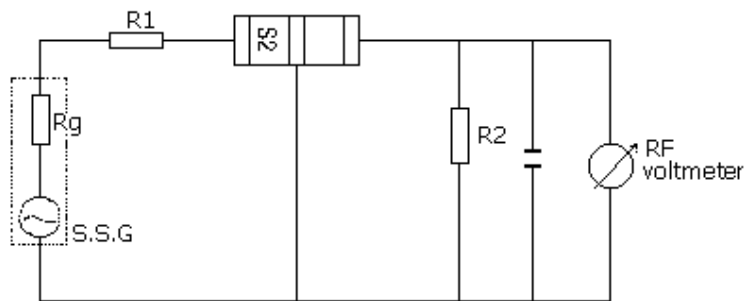
	Items	Spec
4.1	Withstanding Voltage	DC 50v 1 minutes
4.2	Insulation Resistance	100M Ω min.(DC 10V)
4.3	Operating temperature range	-25~+85 °C
4.4	Storage temperature range	-40~+85 °C

5. Measuring method

Measuring Condition

Parts shall be measured under a condition (Temperature:25±3°C, Humidity;65±5 % R.H.) unless the standard condition(Temperature:20±15°C, Humidity;65±20 % R.H) is regulated to measure.

Measuring circuit



R1=280Ω±5%, R2=330Ω±5%, Rg=50Ω ①: Input
C2=10Pf(Including stray capacitance and capacitance of RF Voltmeter) ②: Ground
③:Output

6. Reliability Specifications

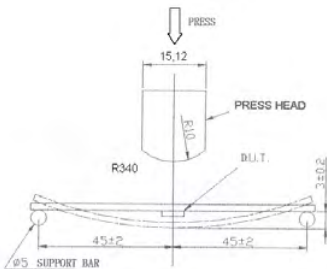
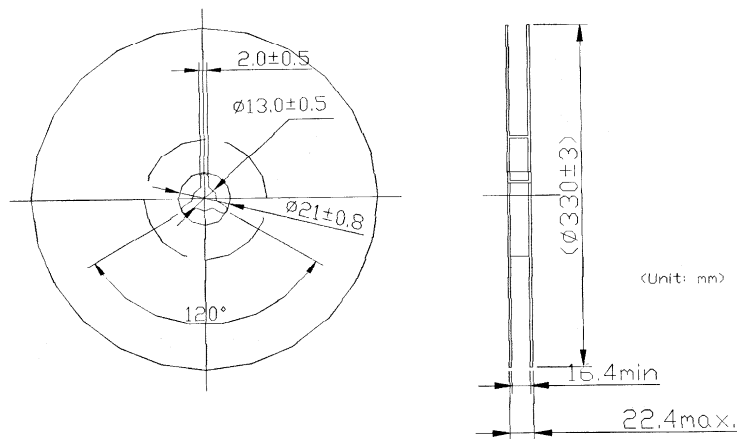
	Item	Test Condition	Spec						
6.1	LowTemp Storage	Stored in $-40\pm 3^{\circ}\text{C}$ for 96 hours, and left at room temp. for 1 hour before measurement.	Meet Table 1						
6.2	High Temp Storage	Stored in $85\pm 2^{\circ}\text{C}$ for 96 hours, and left at room temp. for 1 hour before measurement.	Meet Table 1						
6.3	Humidity Test	Stored at 40 ± 2 , in $90\sim 95\%$ R.H. for 96 hours, and left at room temp. for 1 hour before measurement.	Meet Table 1						
6.4	Thermal Shock	After temp. cycling of -40°C (30 minutes) to $+85^{\circ}\text{C}$ (30 minutes) was performed 5 times, filter shall be measured after being placed in natural condition for 1 hour.	Meet Table 1						
6.5	Soldering Test	Passed through the reflow oven under the following condition for 2 times, and left at room temp. for 24 hours before measurement. <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Temp. at the surface Of the substate</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>Preheat $150\pm 5^{\circ}\text{C}$</td> <td>60~100sec</td> </tr> <tr> <td>Peak $235\pm 5^{\circ}\text{C}$</td> <td>Less than 10 sec</td> </tr> </tbody> </table>	Temp. at the surface Of the substate	Time	Preheat $150\pm 5^{\circ}\text{C}$	60~100sec	Peak $235\pm 5^{\circ}\text{C}$	Less than 10 sec	Meet Table 1
Temp. at the surface Of the substate	Time								
Preheat $150\pm 5^{\circ}\text{C}$	60~100sec								
Peak $235\pm 5^{\circ}\text{C}$	Less than 10 sec								
6.6	Solderability	Dipped in $35\pm 5^{\circ}\text{C}$ solder bath for 3 ± 0.5 Seconds with rosin flrx	The terminals Shall be at least 95% covered by solder						
6.7	Drop test	Free drop to the wood plate from the height of 70 cm for 3 times.	Meet Table 1						
6.8	Vibration	Apply the vibration of weep frequency 10 to 55Hz/minutes, amplitude 1.5mm, duration 2 hours in each direction of 3 planes.	Meet Table 1						
6.9	Board Bending	Mount on a glass-epoxy board (width=50mm, thickness=1.6mm) then bend it to 1mm displacement (velocity 1mm/sec) and keep it for 5 seconds <div style="text-align: center;">  </div>	Mechanical damage such as break shall not occur						

Table Characteristics change limit in reliability test

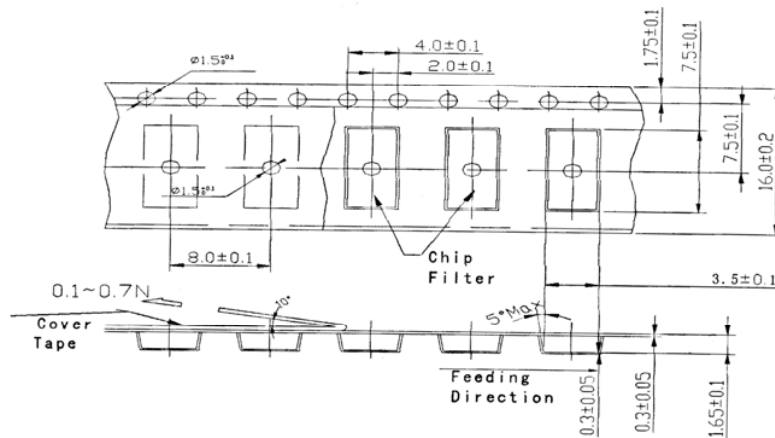
Characteristics	Change limit
Insertion Loss	±2dB max
3db bandwidth	±25kHz max
20dB Bandwidth	±60kHz max

7.Packaging

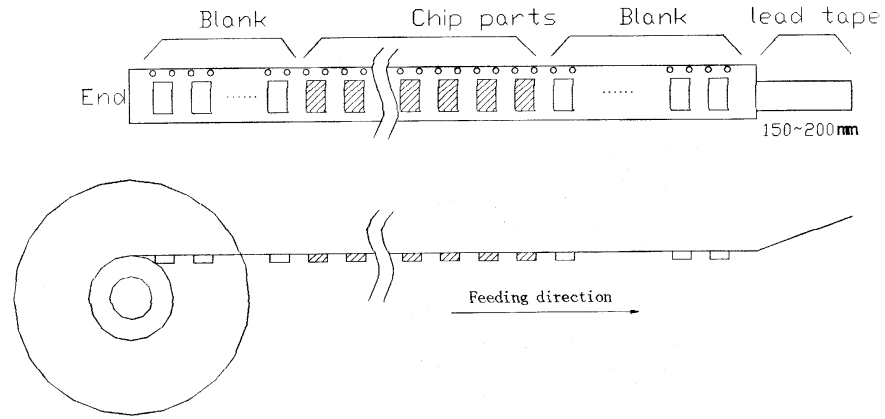
7.1 Reel Dimensions



7.2 Taping Dimensions



7.3 Tape Characteristics



7.4 Reel Quantity:4000pcs/reel or 1000pcs/reel

7.5 Every reel is vacuum packed.(at 300 Torr of vacuum rate).

8. Notices

8.1 Please avoid cleaning this chip ceramic filter.

8.2 Please contact us if you want to use the product in special occasion.