

Ceramic Filter Series

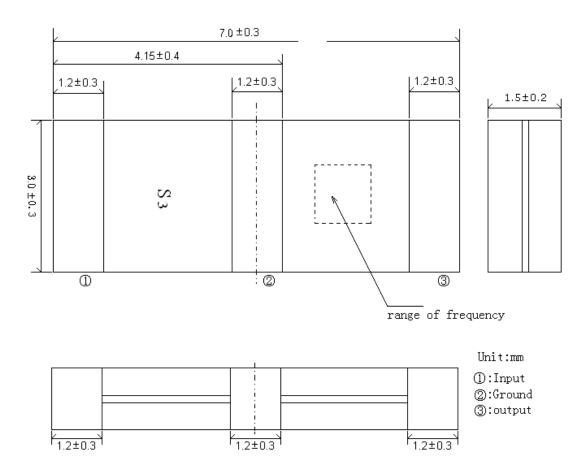
1. Features and Applications

The LTCA10.7MS3 filters are small,high performance and very thin(1.5mm) chip devides consisting of 2 ceramic elements for communication equipment. They are designed on MgTiO₃ ceramic cap package. The filers exhibit flat GDT characteristic in pass band. The filters are recommended for digital communication applications and are perfect in hand held cellular phines, pocket cordless phones, etc.

2. Appearances and Dimendions

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

Dimensions: According to Figure 1.





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3. Electrical Characteristics

Items		Requirements		
Center Frequency(f ₀)	A:10.700MHz± 30kHz m	nax. B:10.670 MHz± 30kHz max.		
	C;10.730 MHz± 30kHz r	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		$1830 \pm 40 \text{kHz}$		
20 dB Bandwidth		470kHz max		
Insertion loss(at fn)		4.0±2.0dB		
Ripple(within 3dB Bandwidth)		1.0dB max		
Spurious Response(9MHz-12MHz)		35dB min		
Input/Output Impedance		330 Ω		

4. Rating

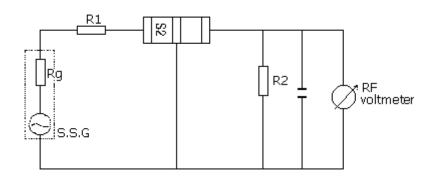
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	Items	Spec			
4.1	Withstanding Voltage	DC 50v 1 minutes			
4.2	Insulation Resistance	100M Ω min.(DC 10V)			
4.3	Operating temperature range	-25~+85℃			
4.4	Storage temperature range	-40~+85℃			

5. Measuring method

Measuring Condition

Parts shall be measured under a condition (Temperature: $25\pm3\,^{\circ}$ C, Humidity; $65\pm5\,^{\circ}$ R.H.)unless the standard condition(Temperature: $20\pm15\,^{\circ}$ C, Humidity; $65\pm20\,^{\circ}$ R.H) is regulated to measure.

Measuring circuit



 $R1=280\Omega\pm5\%, R2=330\Omega\pm5\%, Rg=50\Omega$

①: Input

C2=10Pf(Including stray capacitance

②: Ground

and capacitance of RF Voltmeter)

③:Output



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6. Reliability Specifications

	Item	Test Condition Spec		
6.1	LowTemp	Stored in _40±3°C for 96 hours, and left at room	-	
0.1	Storage	temp.for 1 hour before measurement.	Meet Table 1	
6.2	High Temp	Stored in 85±2°C for 96 hours, and left at room	Meet Table 1	
	Storage	temp.for 1 hour before measurement.		
6.3	Humidity Test	Stored at40±2,in90~95 % R.H.for96 hours ,and left at room temp.for 1 hour before measurement.	Meet Table 1	
		at room temphor I nour before measurement.	1.1000 1.0010 1	
6.4		After temp.cycling of _40°C(30minutes) to +85°C		
	Thermal Shock	(30minutes) was performed 5 times, filter shall be	Meet Table 1	
		measured after being placed in natural condition for 1 hour.		
6.5	Soldering Test	Passed through the reflow oven under the following	Meet Table 1	
		condition for 2 times, and left at room temp. for 24		
		hours before measurement.		
		Temp. at the surface Time		
		Of the substeate		
		Preheat $150\pm5^{\circ}$ C $60\sim100$ sec		
		Peak 235±5°C Less than 10 sec		
6.6	Solderability	Dipped in 35±5°C solder bath for 3±0.5	The terminals	
		Seconds with rosin flrx	Shall be at least95	
			% 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 Meet Table		
		55Hz/minutes,amplitude 1.5mm, duration 2 hours		
		in each direction of 3 planes.		
6.9	Board Bending	Mount on a glass-epoxy	Mechanical	
		board(width=50mm,thickness=1.6mm)then bend it	damage such as	
		to 1mm displacement(velocity 1mm/sec) and keep	break shall not	
		it for 5 seconds	occur	
		↓ PRESS		
		15,12		
		PRESS HEAD		
R340 BUT. ON				
		45±2 45±2 45±2		
		CERT ONLY DOOR		



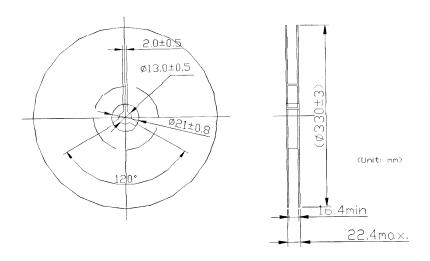
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Tablel Characteristics change limit in reliability test

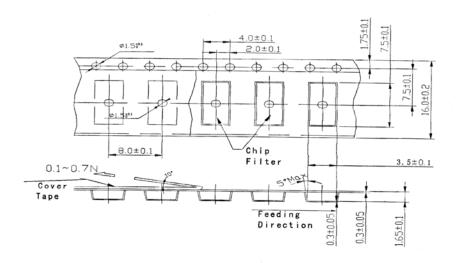
Characteristics	Change Iimit
Insertion Loss	±2dB max
3db bandwidth	±25kHz max
20dB Bandwidth	±60kHz max

7.Packaging

7.1 Reel Dimensions



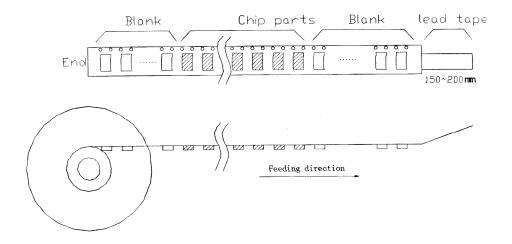
7.2 Taping Dimensions





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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 specital occasion.