# SPECIFICATION

# FOR CERAMIC FILTER

P/N:LT10.7MS2



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## **CERAMIC FILTER SPECIFICATION**

### 1.SCOPE

This specification shall cover the characteristics of the ceramic filter with 10.7MHz

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2.SPECIFICATION NO

3.PART NUMBER

LT10.7MS2

4.ELECTRICAL SPECIFICATIONS

No	Item	Requirements		
4.1	Center Frequency (Fosc)	10.70MHz±30KHz (RED)		
4.2	Band Width (3 dB)	230KHz±50KHz		
4.3	Band Width (20dB)	600KHz max.		
4.4	Insertion Loss	6 dB max.		
4.5	Temperature Coefficient of Center	50ppm/□ max.		
	Frequency(-20□to+80□)			
4.6	Spurious Response(9—12MHz)	40 dB min.		
4.7	Insulation Resistance	100M Ω min.		
4.8	Input/Output Impedance	330 Ω		

#### **5.MEASUREMENT**

5.1 Measurement Condition

Measurement shall be carried out at reference temperature of  $25 \Box \pm 2 \Box$ . It shall be possibly done at  $15 \Box$  to  $35 \Box$  unless it is questionable.



#### **5.2 MEASUREMENT CIRCUIT**



LT10.7MJA Rg+R1=R2=330ohm C=10Pf (Including stray capacitance and input capacitance of RF voltmeter)

6.0 DIMENSION



7. PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS



No	Item	Condition of Test	Performance
			Requirements
7.1	Humidity	Keep the filter at 40±2□ and	It shall fulfill the
		90-95% RH for 96 hours. Then release the	specifications in
		filter into the room condition for 1 hour	Table 1.
		prior to the measurement.	
7.2	High	Subject the filter to 80±5□ for	It shall fulfill the
	Temperature	96±4 hours. Then release the filter into the	specifications in
	Exposure	room conditions for 1 hour prior to the	Table 1.
		measurement.	
7.3	Low	Subject the filter to $-20\pm5$ for	It shall fulfill the
	Temperature	96±4 hours. Then release the filter into the	specifications in
		room conditions for 1 hour prior to the	Table 1.
		measurement.	
7.4	Temperature	Subject the filter to -20 $\square$ for	It shall fulfill the
	Cycling	30 min.followed by a high temperature of	specifications in
		80□ for 30 min. Cycling shall be repeated	Table 1.
		5 times with a transfer time of 15 sec.at	
		the room condition. Then release the filter	
		into the room temperature for 1 hour prior	
		to the measurement.	
7.5	Vibration	Subject the filter to vibration for	It shall fulfill the
		2 hours each in x.y and z axis with the	specifications in
		amplitude of 1.5mm, the frequency shall	Table 1.
		be varied uniformly between the limits of	
		10—55Hz	
7.6	Mechanical	Drop the filter randomly onto a concrete	It shall fulfill the
	Shock	floor from the height of	specifications in
		1 meter 3 times.	Table 1.
7.7	Resistance	Dip the filter terminals no closer than 2	It shall fulfill the
	to Solder	mm into the solder bath at	specifications in
	Heat	260±10□ for 3±0.5 sec.	Table 1.
7.8	Solderability	Dip the filter terminals no closer than 2	More than 95% of
		mm into the solder bath at	the terminal
		235±5□ for 3±0.5 sec.	surface of the
			filter shall be
			covered with
			fresh solder.

7. PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS (Continued from



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No	Item	Condition of Test	Performance	
			Requirements	
7.9	Lead Fatigue			
	(1) Pulling	Weight along with the direction of	The filter shall	
	Test	terminals without any shock	show no evidence	
		5 Newton for 10 sec.	of damage and	
	(2) Bending	Lead shall be subject to withstand	shall fulfill all the	
	Test	against 90 degree bending at its	initial electric	
		stem. This operation shall be done	characteristics.	
		towards both directions.		

#### TABLE1

Item	Specification	
Center Frequency Shift	30KHz max.	
Insertion Loss Shift	2 dB max.	
3 dB Band Width	20KHz max.	
20 dB Band Width	30KHz max.	

### 7.REVIEW OF SPECIFICATIONS

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

