



# 1. SCOPE

This Specification Shall Cover The Characteristics Of The Ceramic Filter With 10.7MHz For FM Receiver.

# 2. SPECIFICATION NO:

# 3. PART NUMBER: LT10.7MA19

# 4. ELECTRONICAL CHARACTERISTICS

- A. 3dB and Width (KHz) 350 Min
- B. 20dB and Width (KHz) 950 Max
- C. Insertion Loss (dB)  $3.0 \pm 2.0$  Max.
- D. Spurious Attenuation (9~12MHz) (dB) 20 Min.
- E. Temperature Coefficient Of Center Frequency(-20 To +80°C)  $\pm 50$  ppm/°C Max

# F. Standard Rule :

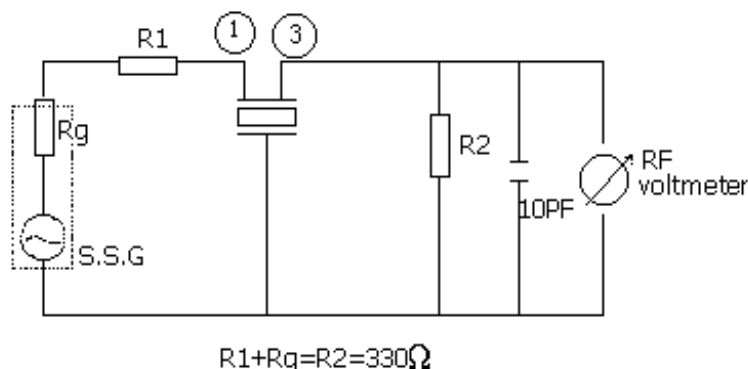
TABLE 1

| Center frequency | D<br>10.64MHz<br>$\pm 30$ KHz | B<br>10.67MHz<br>$\pm 30$ KHz | A<br>10.70MHz<br>$\pm 30$ KHz | C<br>10.73MHz<br>$\pm 30$ KHz | E<br>10.76MHz<br>$\pm 30$ KHz |
|------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Color            | Black                         | Bule                          | Red                           | Orange                        | White                         |

# 5. MEASUREMENT

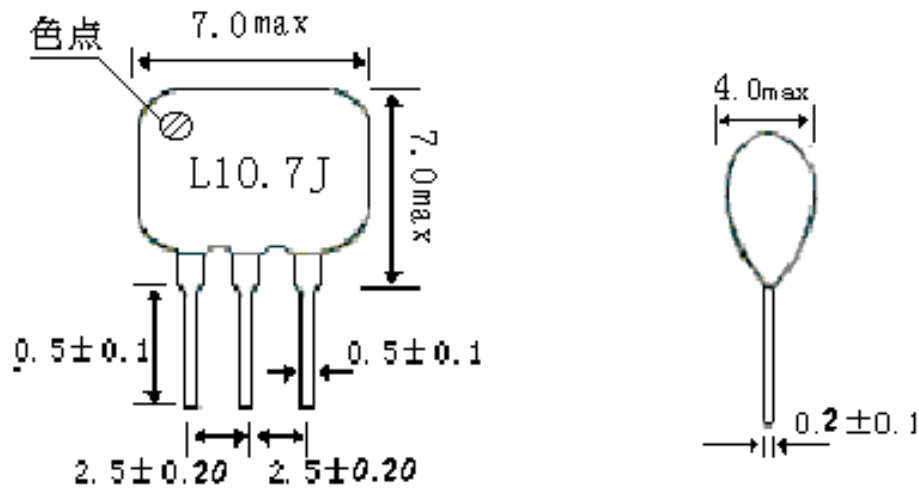
- A. Measurement Shall Be Carried Out At The Reference Temperature Of 25°C  $\pm 2$ °C. It Shall Be Possibly Done At 15°C To 35°C unless It Is Questionable.

# B. TEST CIRCUIT



(Including stray capacitance and input capacitance of RF voltmeter)

## 6. DIMENSIONS(mm)



## 7. ENVIRONMENTAL CHARACTERISTICS

### 7-1 IGH TEMPERATURE EXPOSURE

subject the filter to +80°C for 24 hours. then release the filter into room condition for 4 hours prior to measurement , it shall fulfill the specifications in table 2.

### 7-2 MOISURE

keep the filter at 40°C and 95%RH for 24 hours, then release the filter into the room conditions for 2 to hours prior to the measurement. it shall fulfill the specifications in table 2.

### 7-3 Low Temperature

subject the filter to -20°C for 24 hours. then release the filter into the room conditions for 4 hours prior to the measurement. it shall fulfill the specifications in table 2.

### 7-4 TEMPERATURE CYCLING

subject the filter to alow temperature of -20°C for 30 minutes. following by a high temperature of +80°C for 30 minutes. then release the filter into the room conditions for 1 to 2 hours prior to the mesurement. it shall meet the specifications in table 2.

### 7-5 RESISTANCE TO SOLDER HEAT

dip the filter terminals no closer than 1.5mm into the solder bath at 260°C ±10°C for 5 ± 0.5 sec. then release the filter in to the room conditions for 24 hours. the filter shall meet the specifications in table 2.

### 7-6 MECHANICAL SHOCK

drop the fil ter randomly onto the concrete floor from the height of 1 meter 3 times. it shall fulfill the specifications in table 2.



#### 7-7 VIBRATION

subject the filter to vibration each in x,y and z axes with the amplitude of 1.5mm for 2 hours each direction, the frequency shall be varied uniformly between the limits of 10 to 50HZ, then release the filter into room condition for 2 hours prior to the measurement. It shall fulfill specifications in table 2

#### 7-8 SOLDERABILITY

dip the filter terminals no closer than 2 mm into the solder bath at  $235\pm 5^{\circ}\text{C}$  for  $2\pm 0.5\text{sec}$ . more than 95% of the terminal surface of the filter shall be covered with fresh solder.

#### 7-9 LEAD FATIGUE

##### 7-9-1 pulling test

weight along with the direction of lead without an shock 0.5 kg. the filter shall satisfy all the initial characteristics.

##### 7-9-2 bending test

lead shall be subject to withstand against  $90^{\circ}\text{C}$  bending in the direction of thickness. this operation shall be done toward both direction. the filter shall show no evidence of damage and shall satisfy all the initial electrical characteristics

TABLE 2

| ITEM                    | LIMIT VALUE     |
|-------------------------|-----------------|
| Center Frequency change | $\pm 0.5\%$ max |
| Insertion loss (dB)     | 0.5 dB max      |

#### 8 REVIEW OF SPECIFICATION

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