RFMi
BRAND OF AKOUSTIS

RoHS compliant

CDR1002

2176 MHz Ceramic Filter

Package Dimensions

12 x 4.6 x 8 mm

1.ELECTRICAL CHARACTERISTICS

This filter satisfies Table 1 at Temperature Range : -30 to +85℃

CENTER FREQUENCY :fo=2176 MHz

PASSBAND WIDTH :fo ±6 MHz

INPUT/OUTPUT IMPEDANCE :50Ω

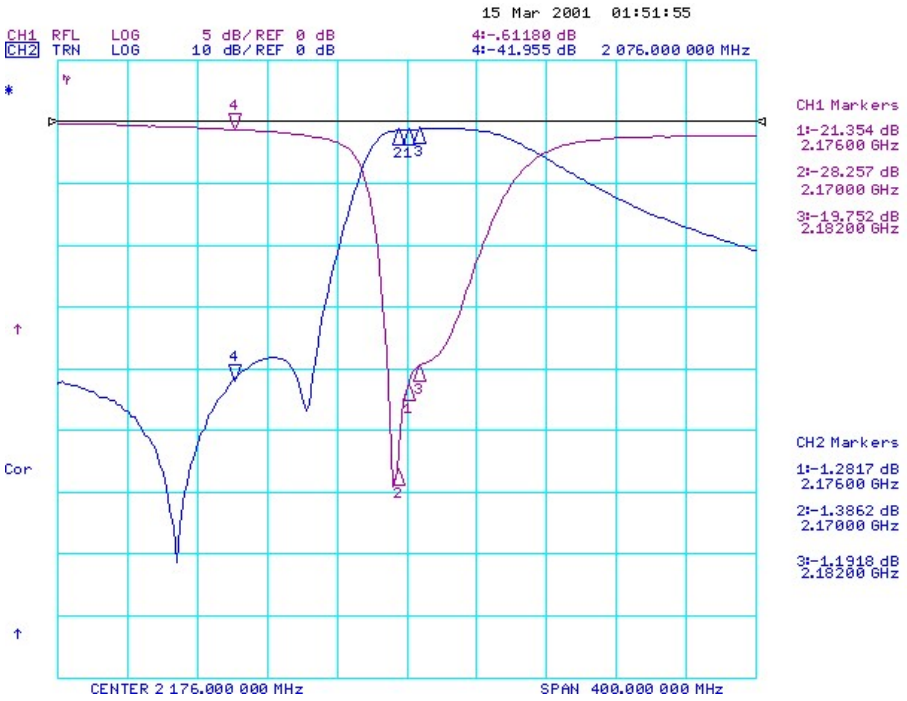
Max. INPUT POWER : 1 W

Moisture Sensitivity Level: 2A

TABLE 1

NO.	ITEM		SPECIFICATION
1	PASS BAND INSERTION LOSS		2.0 dB or less
2	PASS BAND RIPPLE		1.0 dB or less
3	PASS BAND RETURN LOSS		10 dB or more
4	STOP—BAND ATTENUATION	at fo-50 MHz	20 dB
		at fo-100 MHz	36 dB
Item NO.4 specifies the absolute value of attenuation.			

ELECTRICAL RESPONSE



4.RELIABILITY

4-1.STANDARD CONDITION

This standard shall satisfy the condition of Table 1 after the following test 4-2.

4-2.TEST METHOD

The filter shall withstand the following test condition.

4-2-1.Low temperature hold test :-40℃

Unit shall be subjected to the above condition for 10 hours and then be left for more than 2 hours at room temperature.

4-2-2.High temperature hold test:+85℃

Unit shall be subjected to the above condition for 10 hours and then be left for more than 2 hours at room temperature.

4-2-3.Humidity soak test : 60±2℃,90～95% relative humidity.

Unit shall be subjected to the above condition for 24 hours and then be left for more than 2 hours at room temperature.

4-2-4.Vibration test

The vibration of 5 G acceleration (Freq. 5 to 500Hz) and the sweep (0.1 octave per minute) are applied in three directions for 2 hours each.

4-2-5.Shock test

A half sine wave shock with a maximum acceleration of 30 G/11 msec. Is applied in six directions at right angles to each other by three times each.

4-2-6.Heat test

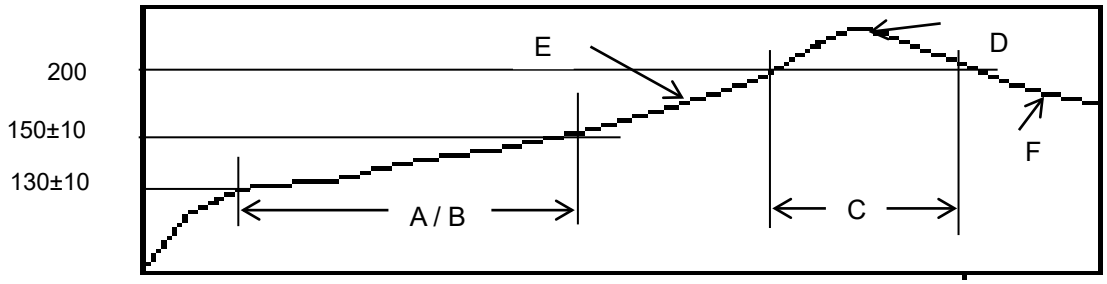
After the lead pins of the unit are soaked in solder bath at 270 ± 10℃ for 5 seconds and then be left for more than 1 hour at room temperature.

5.OTHER

In case of any problem regarding this specification, both customer and the manufacturer shall discuss and solve it.

2.SOLDERING CONDITION (RECOMMENDED)

SOLDER TEMPERATURE PROFILE (Reflow Soldering)



A : Preheating Times → 80～120 Sec. B : Preheating Times → 40～80 Sec.

C : Soldering Time → 20～30 Sec. D :Top Temp. →220±10 ℃

E : Max.→ 10℃／Sec. F : Max. → 8℃／Sec.

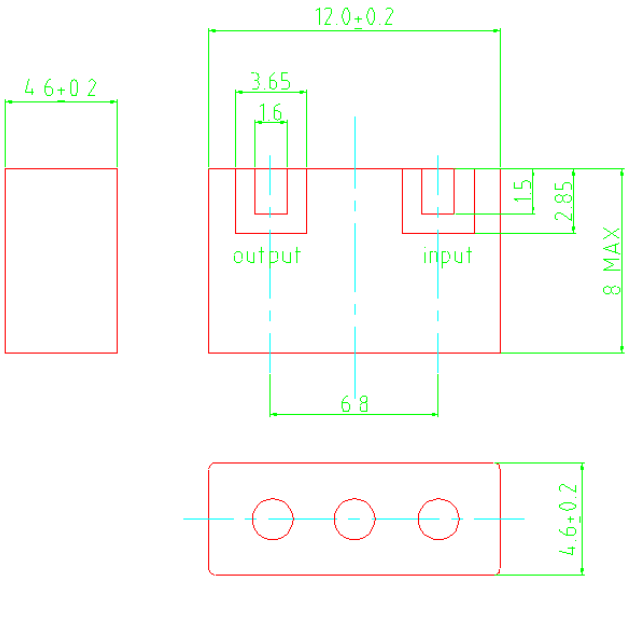
Composition of Cream Solder : 62Sn／36Pb／2Ag

Soldering with iron

Soldering condition : Soldering iron temperature 270±10 ℃

Soldering time less than 3 seconds.

3. SHAPE AND DIMENSION



Dimensions in mm
Tolerance:± 0.15