

SAW SPECIFICATION

APPLICATION	<u>SAW Filter of Two-Channel Satellite Receiver System</u>
PRODUCTS	<u>SAW</u>
HOLDER TYPE	<u>TO-39B</u>
FREQUENCY	<u>479.5MHz</u>
DATE	<u>2010.01.26</u>
CODING P/N	<u>SAW-T039B479.5B03</u>

APPROVED BY

Please return one copy with approval



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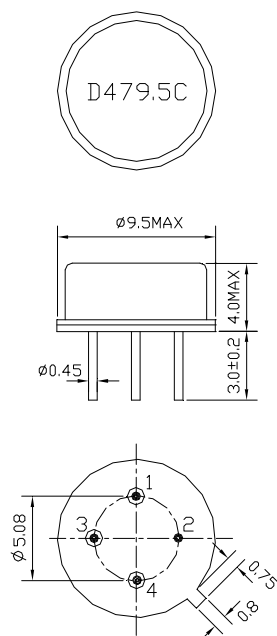
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1. Package Dimension

(TO-39B)

Unit: mm



Pin No.	Function
Pin 1	Input CH1
Pin 2	Ground
Pin 3	Input CH2
Pin 4	Output

2. Marking

D479.5C

1. Black Ink Marking
2. D: Manufacture's log
3. 479.5: Center frequency
4. C: Series code

3. Performance

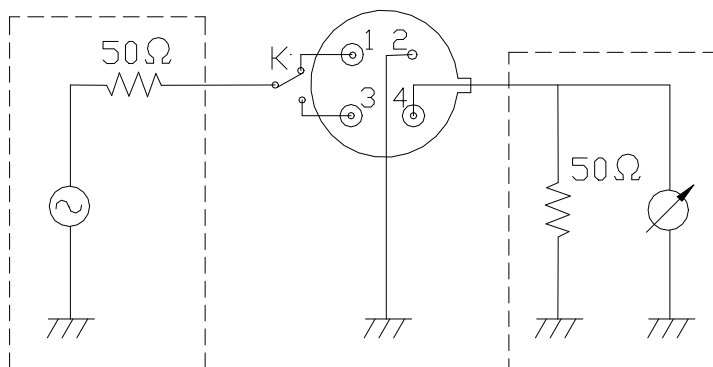
3.1 Maximum Rating

Item	Value
Operation Temperature Range	-40°C to +85°C
Storage Temperature Range	-45°C to +90°C
DC Voltage	0V (between any terminals)
AC Voltage	5V (between any terminals)

3.2 Electronic Characteristics

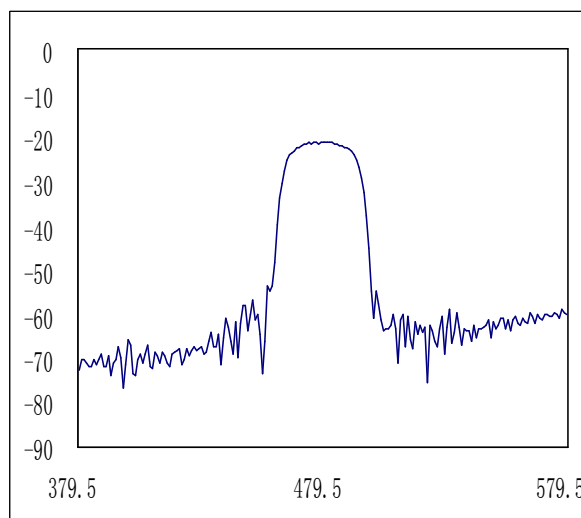
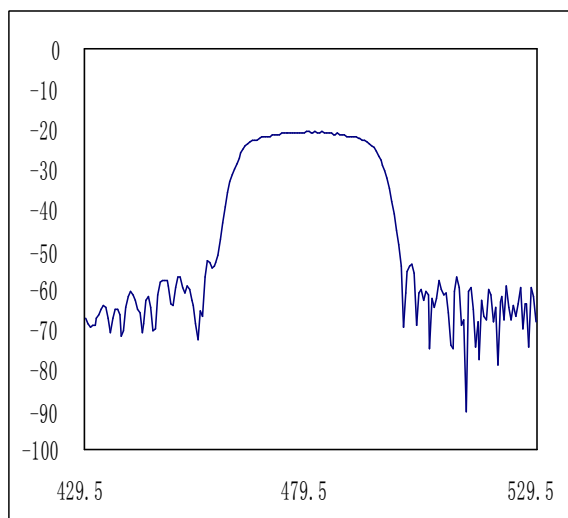
Item	Specification	
	CH1	CH2
Center Frequency of 3dB Band Width (fo) (MHz)	479.5±1.5 MHz	479.5±1.5 MHz
Insertion Loss at 479.5 MHz	23 dB standard	23 dB standard
3dB Pass Band Width	27.0 MHz	18.0 MHz
Spurious Response (0 to 750 MHz)	35 dB min.	35 dB min.
Frequency Stability (-20℃ to +80℃)	-94ppm/℃ max.	-94ppm/℃ max.
Insulating Resistance (DC 10V)	1 MΩ min.	1 MΩ min.

3.3 Test Circuit

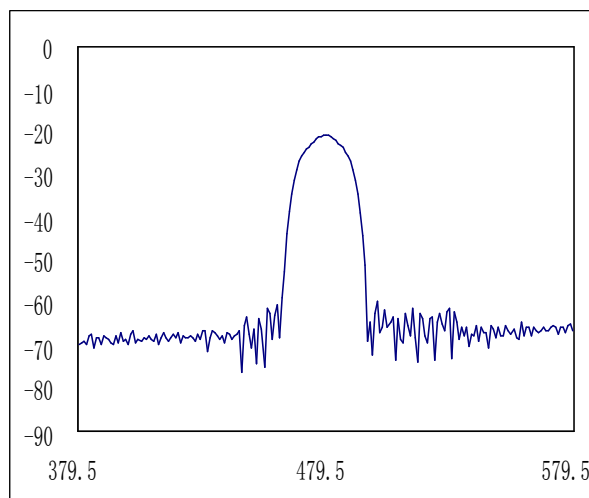
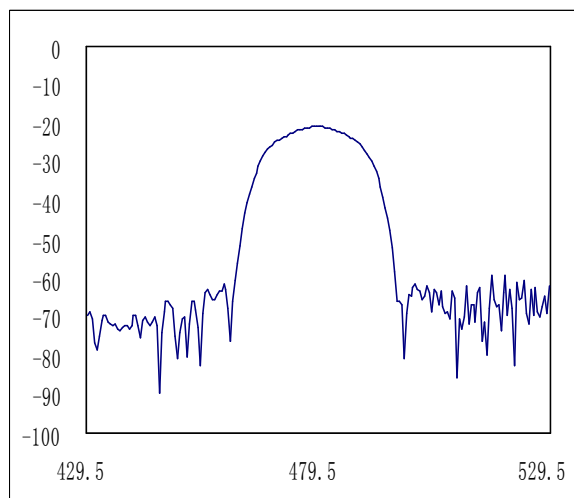


3.4 Frequency Characteristics

Channel 1



Channel 2



4. Reliability

4.1 Resistance to Soldering heat:

4.1.1 The components shall remain within the electrical specifications after it soldered on the 1mm-thickness PCB board and dipped in the solder at $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 10 ± 1 seconds.

4.1.2 The components shall remain within the electrical specifications after it soldered by electric iron, solder at $350^{\circ}\text{C} \pm 10^{\circ}\text{C}$ for 3~4 seconds, recovery time : $2\text{h} \pm 0.5\text{h}$.

4.2 Thermal Shock:

The components shall remain within the electrical specifications after being kept at the condition of heat cycle conditions: $T_A = -40^{\circ}\text{C} \pm 3^{\circ}\text{C}$, $T_B = 85^{\circ}\text{C} \pm 2^{\circ}\text{C}$, $t_1 = t_2 = 30\text{min}$, switch time $\leq 3\text{min}$ & cycle time : 100 times, recovery time : $2\text{h} \pm 0.5\text{h}$.

4.3 The Temperature Storage:

4.3.1 High Temperature Storage: The components shall remain within the electrical specifications after being kept at the $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 500 hours, recovery time : $2\text{h} \pm 0.5\text{h}$.

4.3.2 Low Temperature Storage: The components shall remain within the electrical specifications after being kept at the $-40^{\circ}\text{C} \pm 3^{\circ}\text{C}$ for 500 hours, recovery time : $2\text{h} \pm 0.5\text{h}$.

4.4 Humidity test:

The components shall remain within the electrical specifications after being kept at the condition of ambient temperature $60^{\circ}\text{C} \pm 2^{\circ}\text{C}$, and 90~95% RH for 500 hours.

4.5 Drop test:

The components shall remain within the electrical specifications after random free drops 10 times from height of 1.0 meter onto concrete floor, and the specimens shall meet the electrical

specifications in table 5, external visual inspection.

4.6 Solderability test:

at the condition of temperature $245^{\circ}\text{C} \pm 5^{\circ}\text{C}$ Depth: DIP 2/3 , SMD 1/5, time: 3.0s-5.0s, 80% or more of the immersed surface shall be covered with solder and well-proportioned.

4.7 Vibration Fatigue:

The components shall remain within the electrical specifications after loaded vibration at 10~55Hz, amplitude 1.5mm, X, Y, Z, direction, for 2 hours.

4.8 Terminal strength:

The force 10 ± 1 seconds of 19.6N is applied to each terminal, and 45° in the same direction 2 times with 2N bending force (Exception: SMD)

4.9 Mechanical Shock:

The components shall remain within the electrical specifications after 1000 shocks, acceleration 392 m/s^2 , duration 6ms.

Note: As a result of the particularity of inner structure of SAW products, it easy to be breakdown by electrostatic, so we should pay attention to ESD protect in the test.

5. Remarks

5.1 Static voltage

Static voltage between signal load & ground may cause deterioration & destruction of the component. Please avoid static voltage.

5.2 Ultrasonic cleaning

Ultrasonic vibration may cause deterioration & destruction of the component. Please avoid ultrasonic cleaning.

5.3 Soldering

Only leads of component may be soldered. Please avoid soldering another part of component.