# SAW SPECIFICATION

| | |
|---|---|
| APPLICATION | IF SAW filter for CDMA |
| PRODUCTS | SAW |
| HOLDER TYPE | SF 7050 |
| FREQUENCY | 183.6MHz |
| DATE | 2010.01.22 |
| CODING P/N | SAW-7050F183.6A01 |

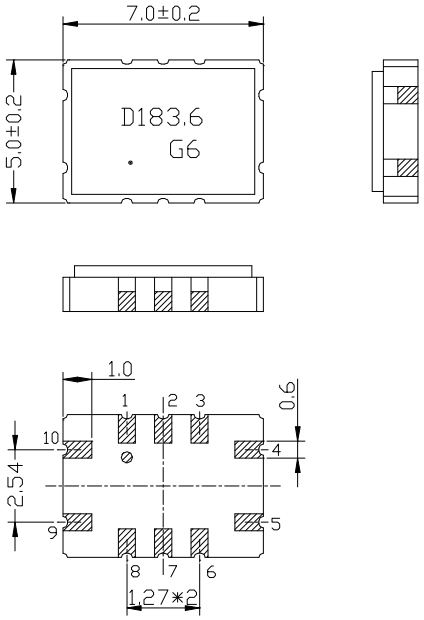
| APPROVED BY |
|---|
| |

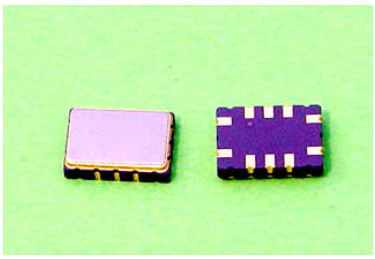
Please return one copy with approval


GUANGZHOU JINGYANG ELECTRONIC TECHNOLOGY CO.,LTD.
Add:No39,DONGPU ROAD,GUANGZHOU CITY,CHINA
Tel:020-32205519 Fax:020-32206883
E-mail:peter@gzdydz.cn
Http://www.gzdydz.cn

## 1. Package Dimension

(SF 7050) Unit: mm



| Pin No. | Function |
|---|---|
| Pin 9 | Input |
| Pin 10 | Input(Balance) |
| Pin 4 | Output |
| Pin 5 | Output(Balance) |
| Other | Ground |

## 2. Marking

D183.6
• G6

(1) Ink Marking or Laser Marking
(2) D: Manufacture's logo
(3) 183.6: Model code
(4) • : Pin 1 Identifier
(5) G6: Date code

| G | 6 |
|---|---|
| Month code | Last figure of year |

| Month | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Month code | A | B | C | D | E | F | G | H | I | J | K | L |

e.g.: " G6 " means July of 2006

## 3. Performance

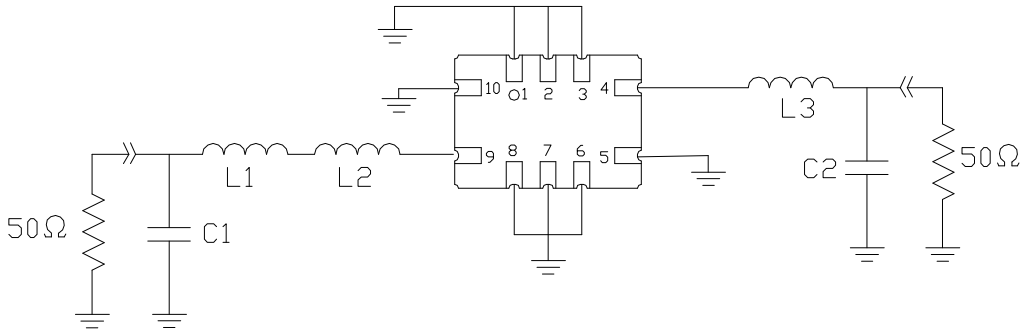
3.1 Maximum Rating

| Item | Value |
|---|---|
| Operation Temperature Range | -40℃ to +85℃ |
| Storage Temperature Range | -45℃ to +90℃ |
| DC Permissive Voltage | 10V DC max. |
| Maximum Input Power | 10 dBm |

3.2 Electronic Characteristics

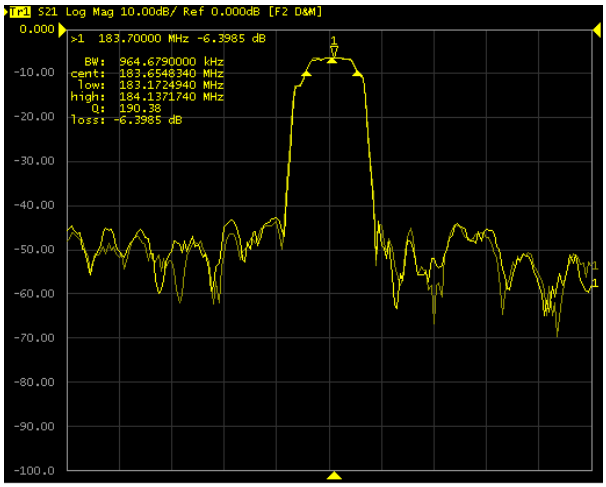
| Item | Frequency (MHz) | Specification |
|---|---|---|
| Center Frequency (fo) | 183.6 | |
| -5dB Pass Bandwidth | | 1.2MHz Min. |
| Insertion Loss | | 9.0 dB Max. |
| Ripple | fo-300KHz | 1.0 dB Max. |
| Attenuation | fo -1.25<br>fo - 900KHz<br>fo + 900KHz<br>fo + 1.25MHz | 33 dB Min.<br>33 dB Min.<br>33 dB Min.<br>33 dB Min. |
| Group Delay Deviation | fo +/- 300KHz | 500 ns |

3.3Test Circuit




L1: 12nH; L2: 68nH; L3: 100nH
C1: 43pF; C2: 30pF

3.3 Frequency Characteristics




## 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℃±5℃ for 10±1 seconds.

4.1.2 The components shall remain within the electrical specifications after it soldered by electric iron, solder at 350℃±10℃ for 3~4 seconds, recovery time : 2h±0.5h.

4.2 Thermal Shock:

The components shall remain within the electrical specifications after being kept at the condition of heat cycle conditions: TA=-40℃±3℃, TB=85℃±2℃, t1=t2=30min, switch time≤3min & cycle time : 100 times, recovery time : 2h±0.5h.

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℃±2℃for 500 hours, recovery time : 2h±0.5h.

4.3.2 Low Temperature Storage: The components shall remain within the electrical specifications after being kept at the –40℃±3℃for 500 hours, recovery time : 2h±0.5h.

4.4 Humidity test:

The components shall remain within the electrical specifications after being kept at the condition of ambient temperature 60℃±2℃, 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℃±5℃ 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.

4.8Terminal 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.