



SAW Components
Data Sheet
CQTSF1591M00.00

Customer's Approval Certificate	
Complies with Directive 2002/95/EC (RoHS)	
Please return this Page Via email as a certification of Your approval	
Checked & Approval by:	Date:

Hangzhou Freq-control Electronics Technology Co.,Ltd.

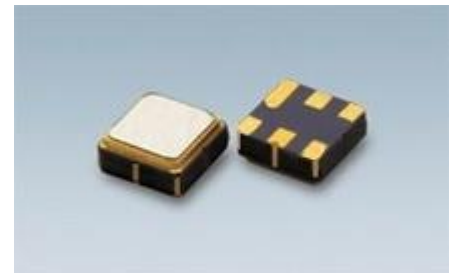
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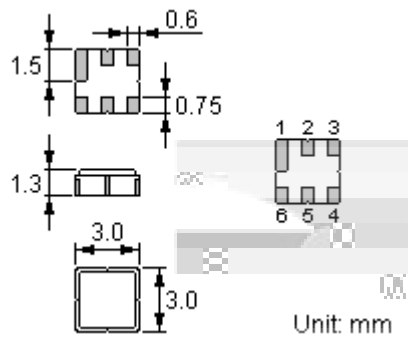
Features

- Low-loss RF filter for mobile systems
- Low amplitude ripple
- No matching network required for operation at 50Ω
- Ceramic package for Surface Mounted
- Technology (SMT)
- Lead-free production and RoHS compliant



Package Dimensions

Ceramic Package: DCC6C



Pin Configuration

2	Input
5	Output
1, 3, 4, 6	Ground

Maximum Ratings

Rating		Value	Unit
Input Power Level	P	10	dBm
DC Voltage	V_{DC}	-5	V
Operating Temperature Range	T_A	-40 ~ +85	°C
Storage Temperature Range	T_{stg}	-40 ~ +85	°C

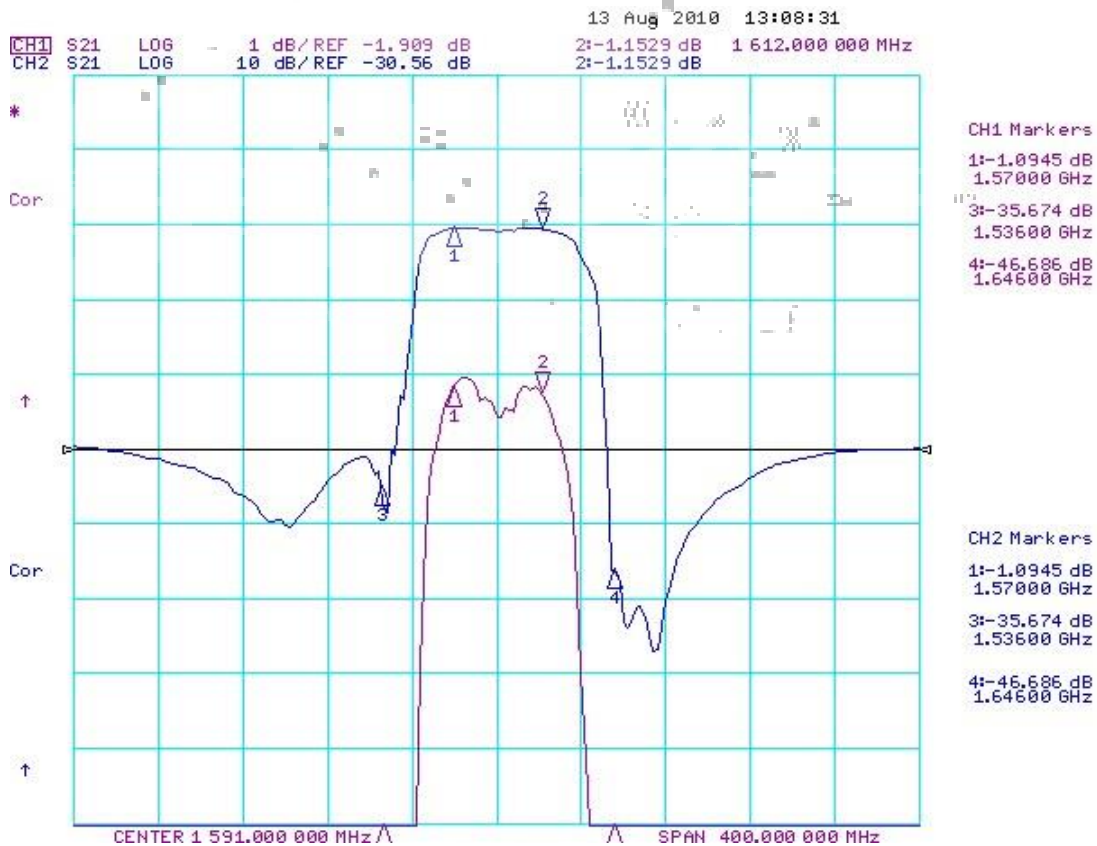
Electrical Characteristics

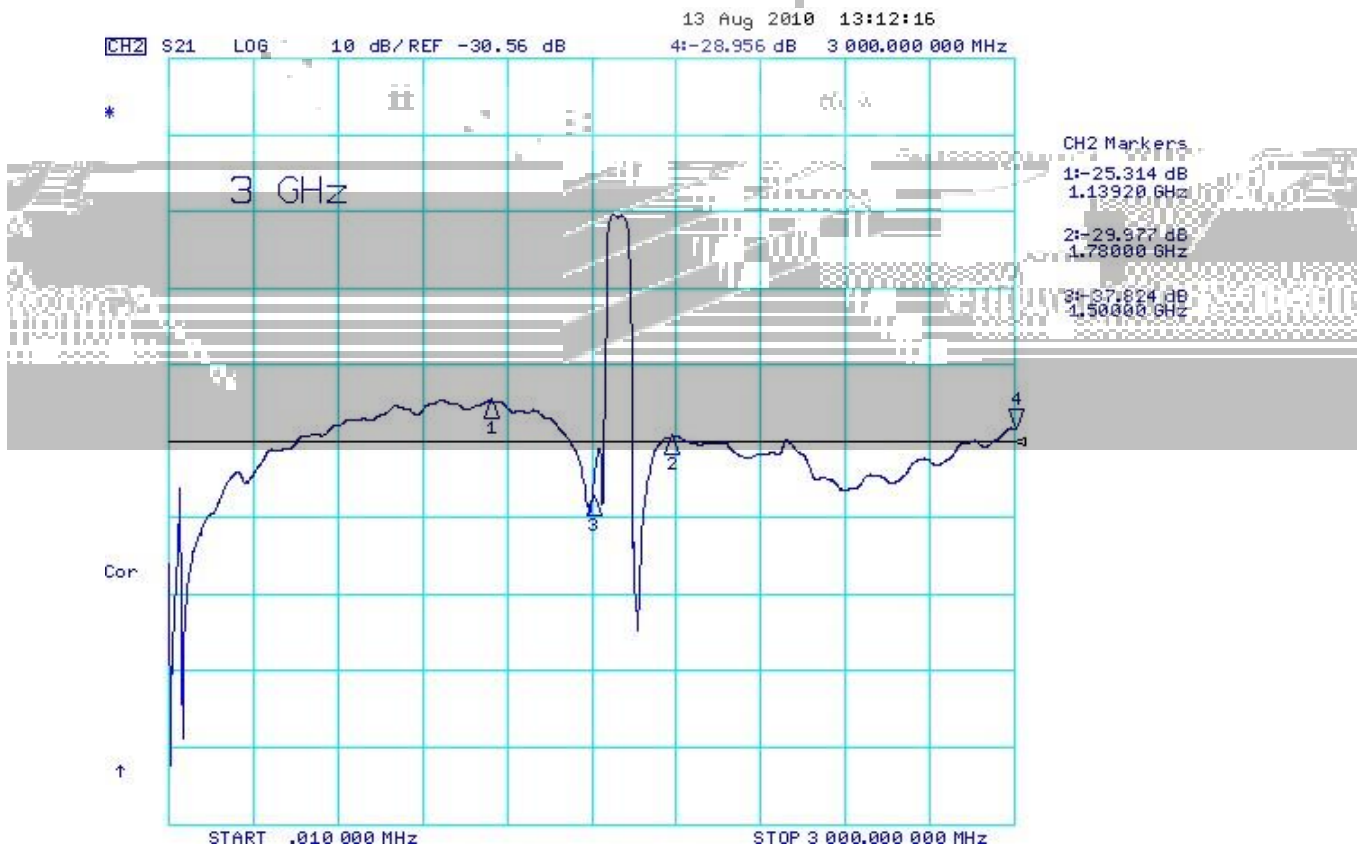
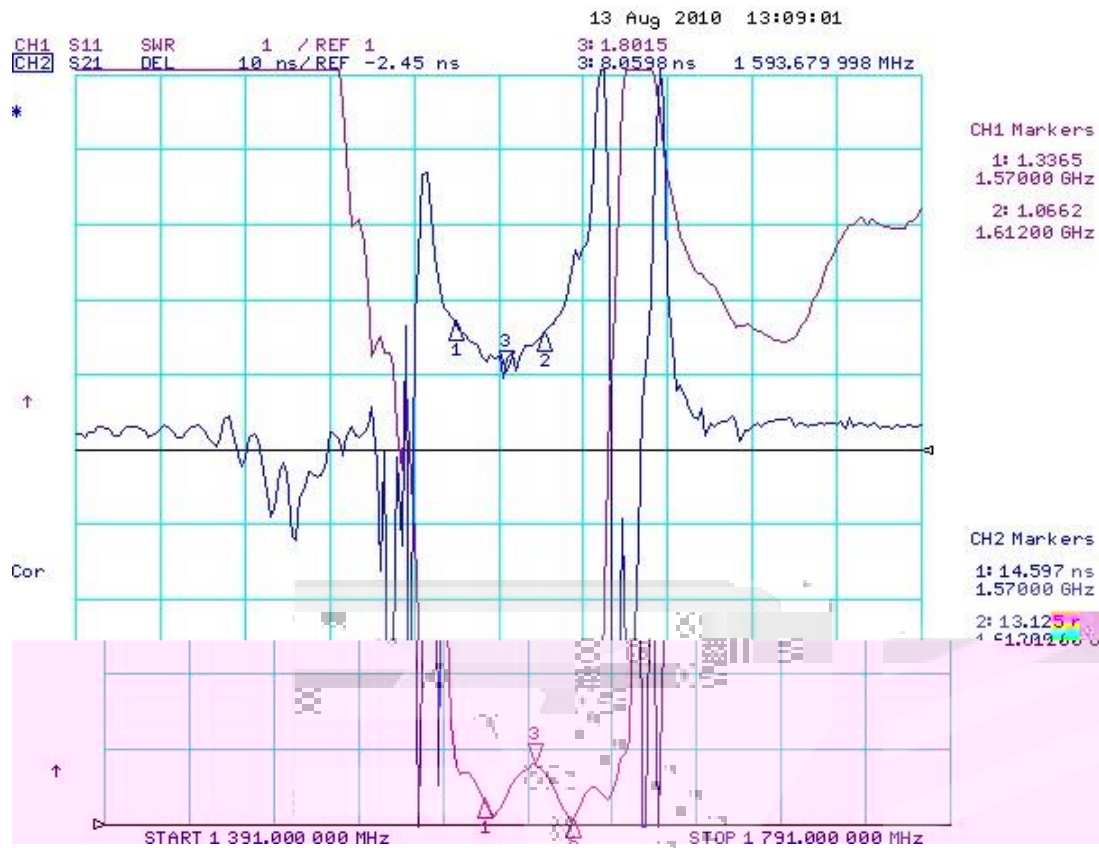
Item		Minimum	Typical	Maximum	Unit
Center Frequency	f_c		1591		MHz
Insertion Loss	IL				
	1570.00 1612.00 MHz	--	1.5	2.5	dB
Group Delay Ripple	1570.00 1612.00 MHz		10	40	ns
Absolute Attenuation	α				
	DC 1500.00 MHz	22	25		dB
	1536 MHz	30			dB
	1646 MHz	30			dB
	1700.00 1800.00 MHz	25	29		dB
	1800.00 3000.00 MHz	22	28		dB
Amplitude Ripple (p-p)	1570.00 1612.00 MHz $\Delta \alpha$		0.5	1.0	dB
Input VSWR	1570.00 1612.00 MHz		1.8 : 1	2.0 : 1	
Output VSWR	1570.00 1612.00 MHz z		1.8 : 1	2.0 : 1	
Input / Output Impedance (Nominal)			50		Ω

RoHS Compliant

Electrostatic Sensitive Device

Typical Frequency Response





Stability Characteristics

	Test item	Condition of test
1	Mechanical shock	(a) Drops: 3 times on concrete floor (b) Height: 1.0 m
2	Vibration resistance	(a) Frequency of vibration: 10~55Hz (b) Amplitude: 1.5 mm (c) Directions: X,Y and Z (d) Duration: 2 hours
3	Moisture resistance	(a) Condition: 40°C, 90~95% R.H. (b) Duration: 96 hours (c) Wait 4 hours before measurement
4	Climatic sequence	(a) +70°C for 16 hours (b) +55°C for 24 hours, 90~95% R.H. (c) -25°C for 2 hours (d) +40°C for 24 hours, 90~95% R.H. (e) Wait 4 hours before measurement
5	High temperature exposure	(a) Temperature: 70°C (b) Duration: 250 hours (c) Wait 4 hours before measurement
6	Thermal impact	(a) +70°C for 30 minutes ⇒ -25°C for 30 minutes repeated 3 times (b) Wait 4 hours before measurement

Requirements: The SAW filter shall remain within the electrical specifications after tests.

Remarks

SAW devices should not be used in any type of fluid such as water, oil, organic solvent, etc.

Be certain not to apply voltage exceeding the rated voltage of components.

Do not operate outside the recommended operating temperature range of components.

Sudden change of temperature shall be avoided, deterioration of the characteristics can occur.

Be careful of soldering temperature and duration of components when soldering.

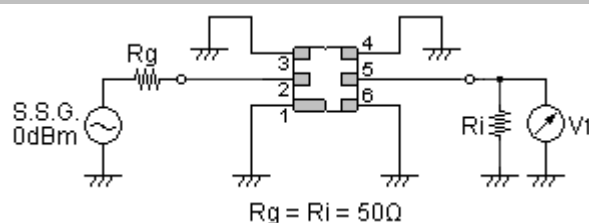
Do not place soldering iron on the body of components.

Be careful not to subject the terminals or leads of components to excessive force.

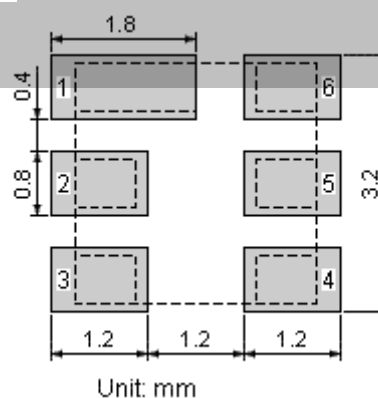
SAW devices are electrostatic sensitive. Please avoid static voltage during operation and storage.

Ultrasonic cleaning shall be avoided. Ultrasonic vibration may cause destruction of components.

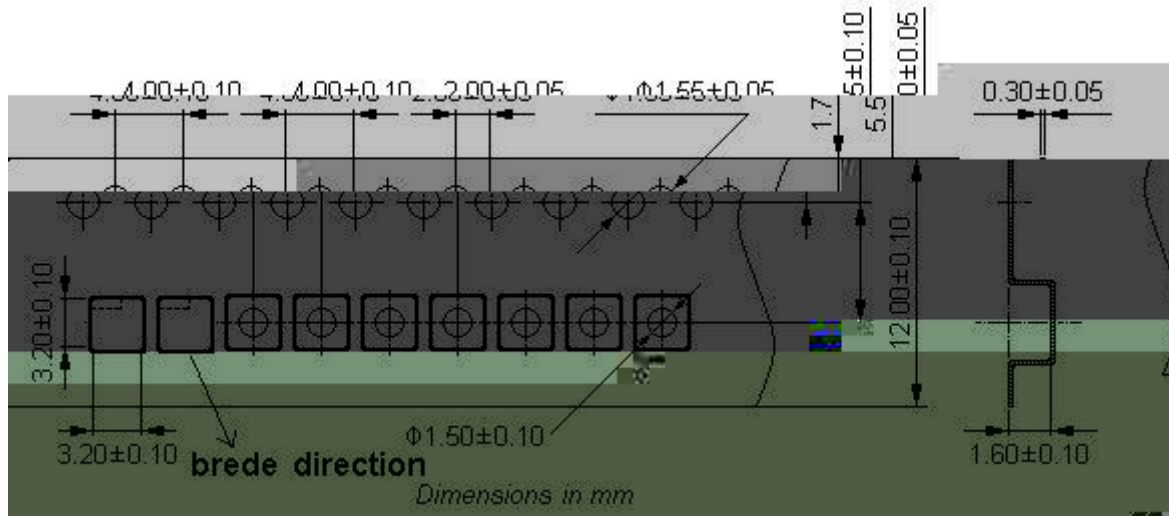
Test Circuit



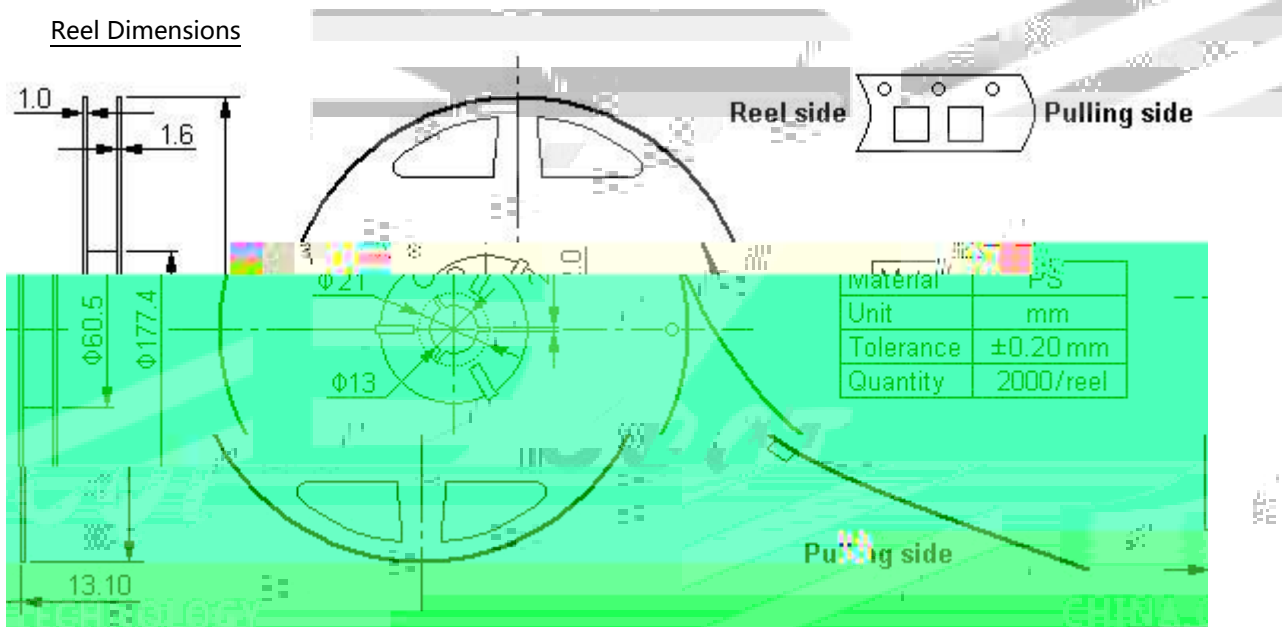
Recommended Land Pattern



Carrier Tape



Reel Dimensions



Outer Packing

Type	Quantity	Dimension	Description	Weight
Carton Box I	10000	190×190×95	anti-static plastic bag & carton box	0.85
Carton Box II	20000	190×190×190	1 reel / bag 5 bags / box (10000 pcs) 10 bags / box (20000 pcs)	1.80

Unit: mm

Unit: kg

Recommended Soldering Profile

