SAW Components
Data Sheet
CQTSF433M50.01

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:

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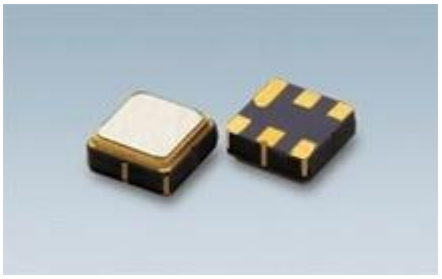
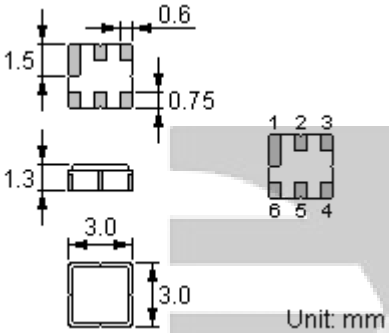
Features

- Low-loss RF filter for mobile systems
- Low amplitude ripple
- No matching network required for operation at 50Ω
- Ceramic package for **S**urface **M**ounted **T**echnology (**SMT**)
- Lead-free production and **RoHS** compliant



1.Package Dimensions

Ceramic Package: **DCC6C**



Pin Configuration

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

2.Marking

DSF*
.XXXX

(1) Laser Marking
(2) D: Manufacture's logo
(3) SF: SAW Filter
(4) XXXX: Part Number
(5) ·: Pin 1 Identifier
(6) *: Lot number (The code shown below varies in a 4-year cycle)

Code	1	2	3	4	5	6	7	8	9	10	11	12
2009	A	B	C	D	E	F	G	H	J	K	L	M
2010	N	P	Q	R	S	T	U	V	W	X	Y	Z
2011	a	b	c	d	e	f	g	h	i	j	k	m
2012	n	p	q	r	s	t	u	v	w	x	y	z

3.Maximum Ratings

Rating		Value	Unit
Input Power Level	P	27	dBm
DC Voltage	V_{DC}	12	V
Operating Temperature Range	T_A	-40 ~ +85	°C
Storage Temperature Range	T_{stg}	-40 ~ +85	°C

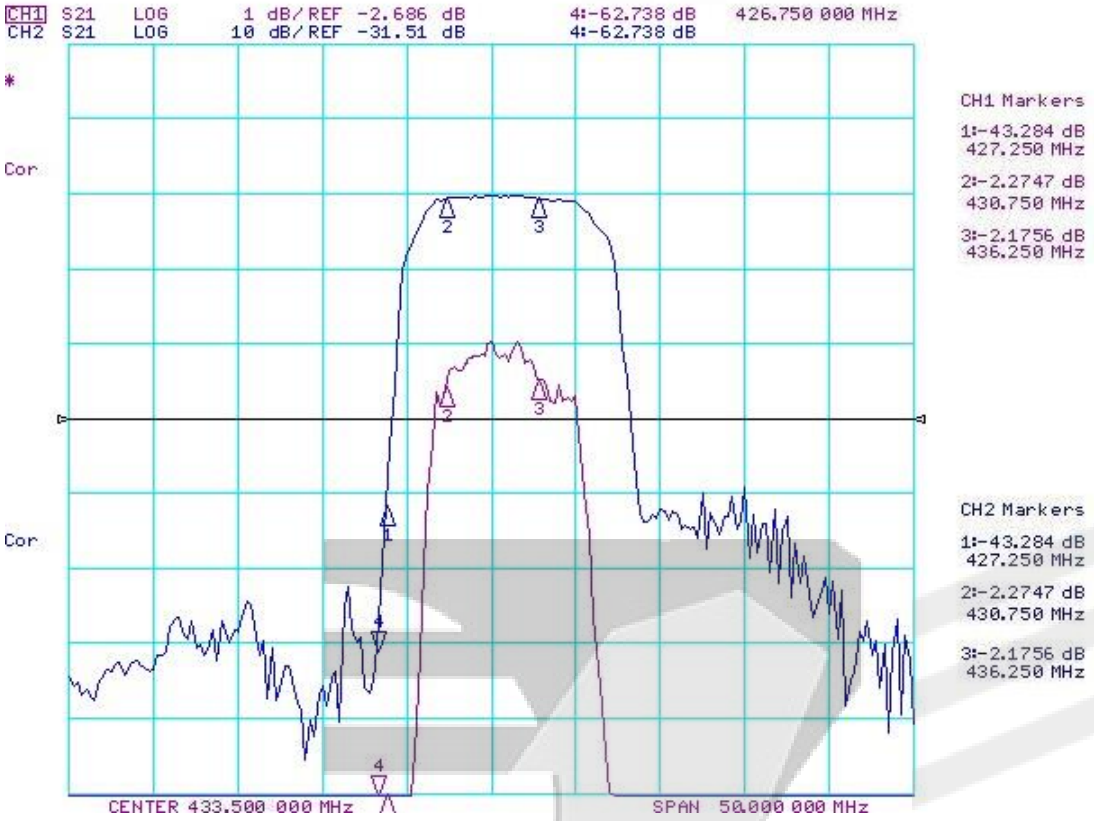
Electrical Characteristics

Item		Minimum	Typical	Maximum	Unit
Center Frequency	f_C		433.5		MHz
Insertion Loss	IL				
431.25 …. 435.75 MHz		--	2.4	3.0	dB
Absolute Attenuation	α				
0.300 …. 400.00 MHz		40	50		dB
400.0 … 426.75 MHz		30**	45		dB
445.0 …. 600.00 MHz		30	35		dB
600.0 …. 1000.00 MHz		40	45		dB
Amplitude Ripple (p-p) 431.25 …. 435.75 MHz	$\Delta\alpha$		0.7	1.2	dB
Intput VSWR 431.25 …. 435.75 MHz				2.0 : 1	
Output VSWR 431.25 …. 435.75 MHz				2.0 : 1	
Input / Output Impedance (Nominal)			50		Ω

** : -10°C -65°C

RoHS Compliant **Electrostatic Sensitive Device**

4.Typical Frequency Response



5.Stability Characteristics

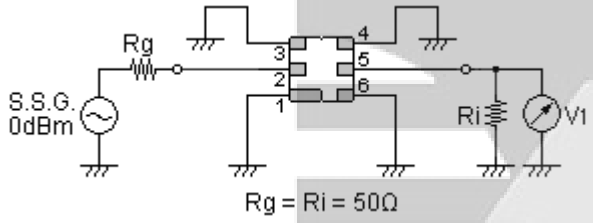
	Test item	Condition of test
1	Mechanical shock	(a) Drops: 3 times on concrete floor (b) Height: 1.0 m
2	Vibration resistance	(a) Frequency of vibration: 10~55Hz (b) Amplitude: 1.5 mm (c) Directions: X,Y and Z (d) Duration: 2 hours
3	Moisture resistance	(a) Condition: 40°C, 90~95% R.H. (b) Duration: 96 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 filer shall remain within the electrical specifications after tests.

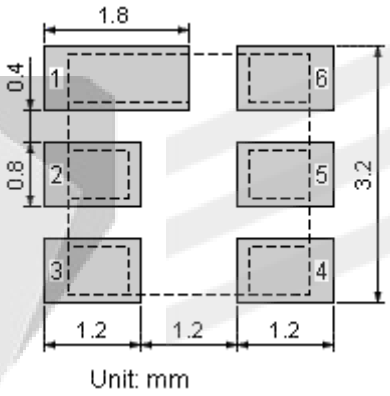
Remarks

- 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.

6.Test Circuit

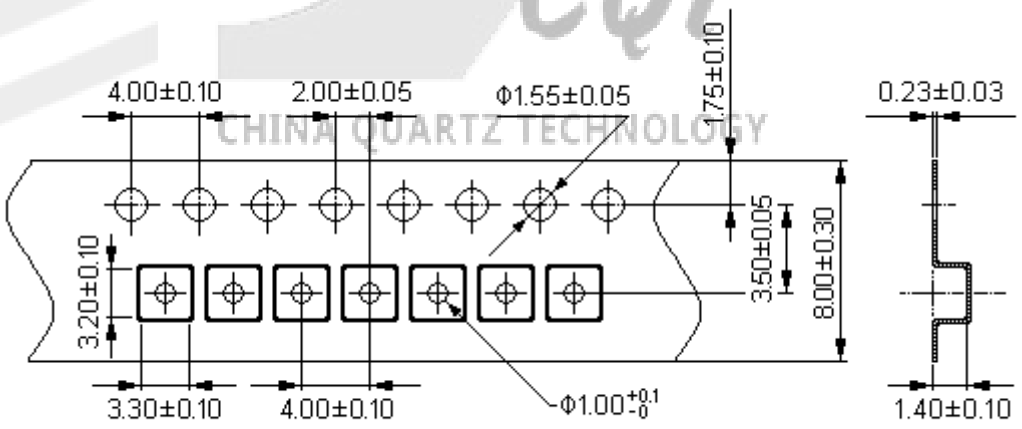


Recommended Land Pattern



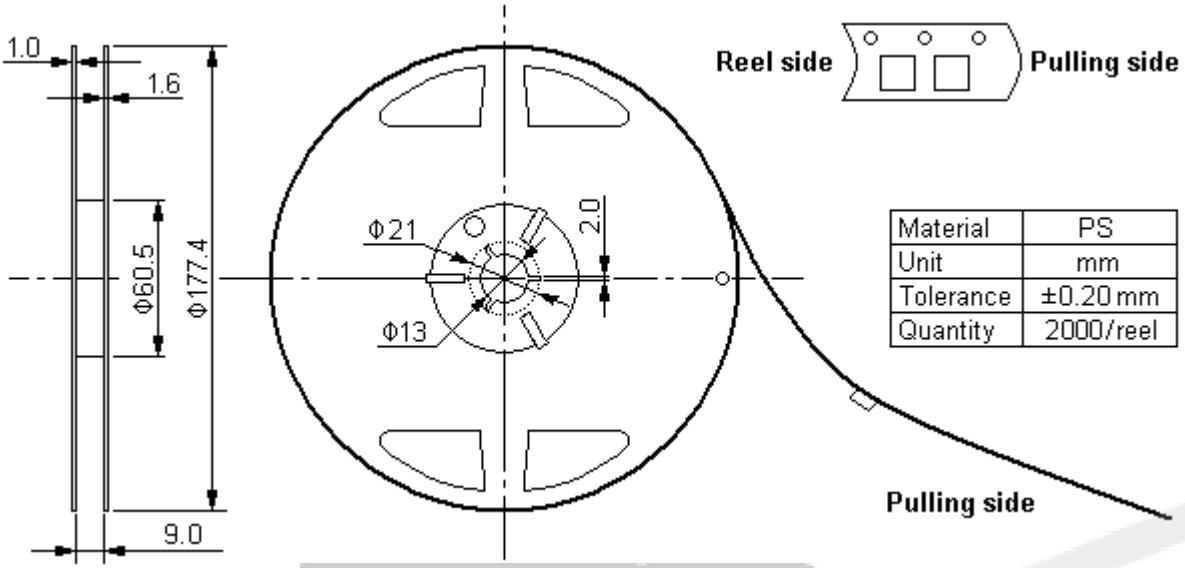
7.Packing Information

Carrier Tape



Dimensions in mm

Reel Dimensions



Material	PS
Unit	mm
Tolerance	±0.20 mm
Quantity	2000/reel

Outer Packing

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

Unit: mm Unit: kg

Recommended Soldering Profile