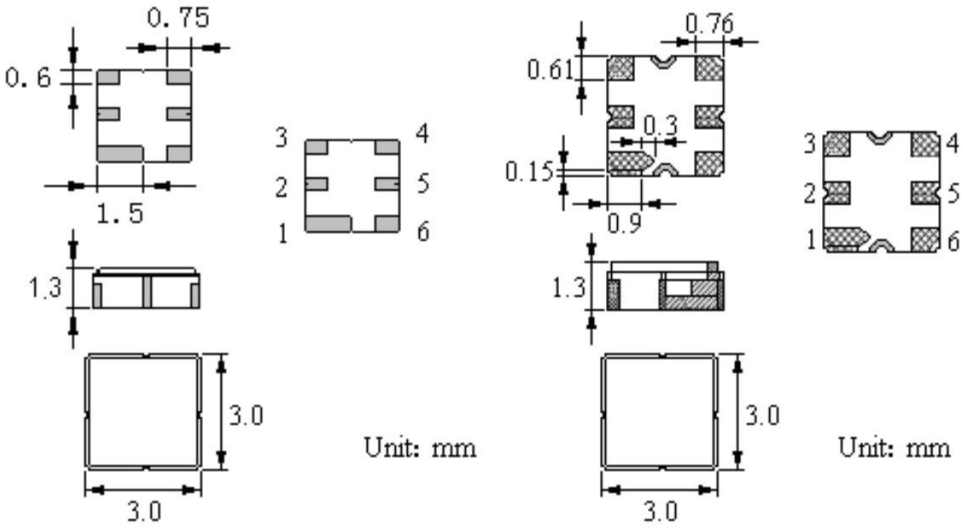
Features

- Low-loss RF filter for TDD Band43.
- 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

Package Dimensions

Ceramic Package: **DCC6C**



Pin Configuration

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

Marking

Top View, Laser Marking

"**ND**": Manufacturer's mark "**F**": SAW filter

"**9498**": Part number " · ": Terminal 1

" * ": 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
2016	n	p	q	r	s	t	u	v	w	x	y	z
2017	A	B	C	D	E	F	G	H	J	K	L	M
2018	N	P	Q	R	S	T	U	V	W	X	Y	Z
2019	a	b	c	d	e	f	g	h	i	j	k	m

Maximum Ratings

Rating		Value	Unit
Input Power Level	*P*	11.5 dBm CW，Ta=115°C，life time>10 years	
		12.5 dBm CW，Ta=105°C，life time>10 years	
		13.5 dBm CW，Ta=95°C，life time>10 years	
		18dBm CW，Ta=115°C，pass band top frequency，test 1000 hours continuously ,electrical characters meet demand ；	
		19dBm CW，Ta=105°C，pass band top frequency，test 1000 hours continuously ,electrical characters meet demand ；	
		20dBm CW ,Ta=95°C ,pass band top frequency ,test 1000 hours continuously ,electrical characters meet demand ；	
		21dBm CW，Ta=115°C，pass band top frequency，test 2 hours continuously ,electrical characters meet demand ；	
		22dBm CW，Ta=105°C，pass band top frequency，test 2 hours continuously ,electrical characters meet demand ；	
		23dBm CW，Ta=95°C，pass band top frequency，test 2 hours continuously ,electrical characters meet demand ；	
DC Voltage	V_{DC}	0	V
Operating Temperature Range	T_A	-40 ~ +115	°C
Storage Temperature Range	T_{stg}	-40 ~ +125	°C

Electrical Characteristics

Parameter		Unit	Minimum	Typical	Maximum
Center frequency		MHz		3700	
Insertion Loss (3600~3800MHz)		dB		4.7*)	5.0*)
				4.8**)	5.0**)
				4.9***)	5.1***)
Pass band Ripple (3600~3800MHz)				2.0	3
Group delay Variation(3600~3800MHz)		ns		5	15
Absolute Attenuation	DC~2550MHz	dB	20	30	
	2550~2690MHz	dB	30	35	
	2690~3000MHz	dB	20	28	
	3000~3400MHz	dB	15*)	25*)	
			13**)	20**)	
			11***)	18***)	
	4000~4050MHz	dB	20	30	
	4050~4200MHz	dB	20	30	
	4200~5000MHz	dB	20	30	
	5000~6000MHz	dB	25	35	
Input/ Output VSWR (3600~3800MHz)				1.7	3
Input/Output Impedance		ohm		50	

RoHS Compliant **Electrostatic Sensitive Device**

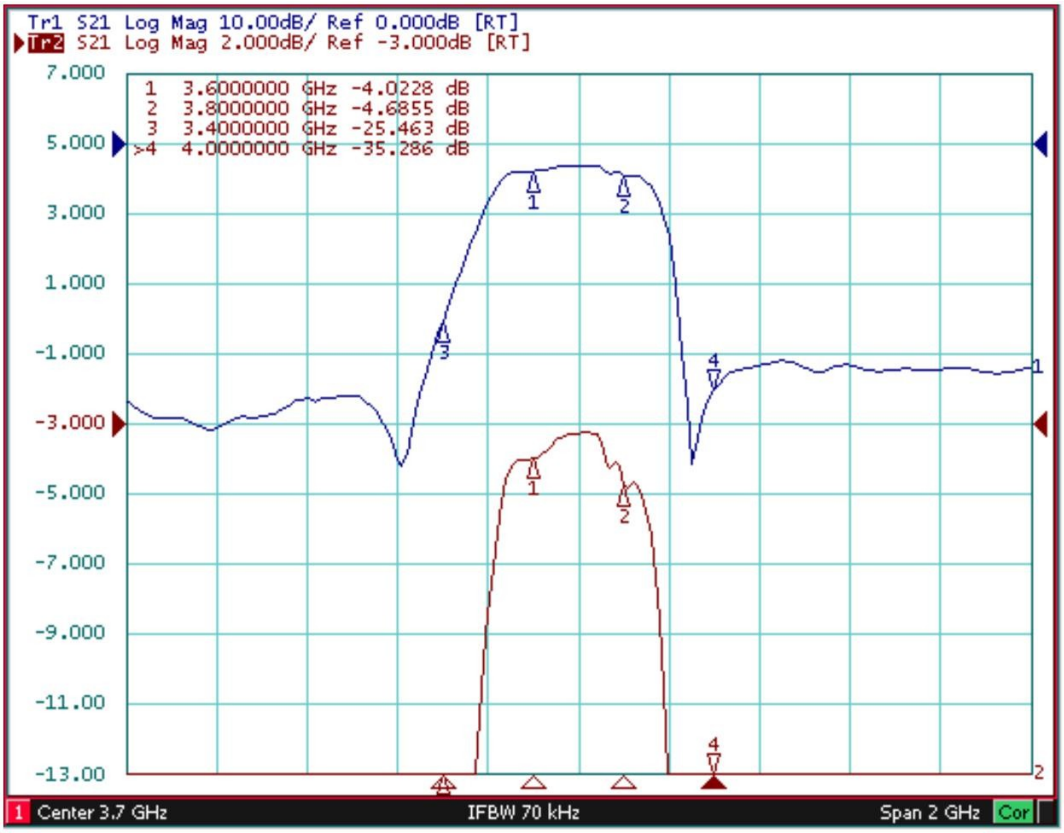
*) @ -40 °C ~95°C

**) @ 95 °C ~105°C

***) @ 105 °C ~115°C

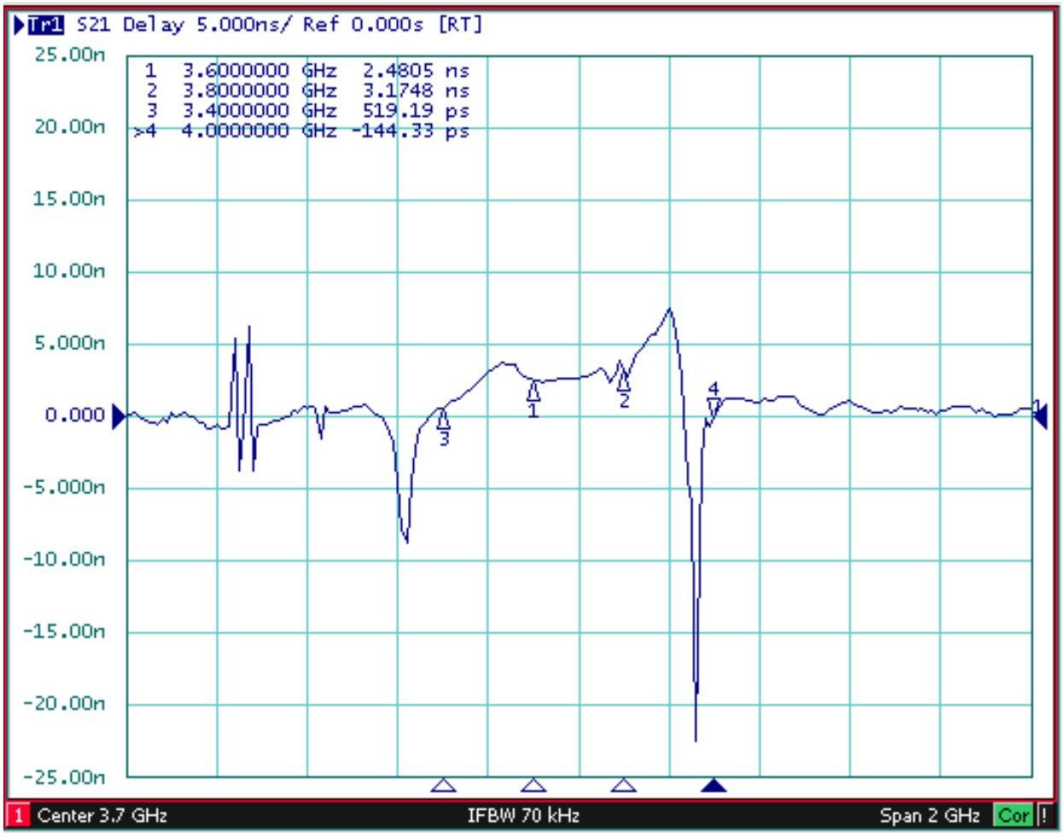
Typical Frequency Response

S21

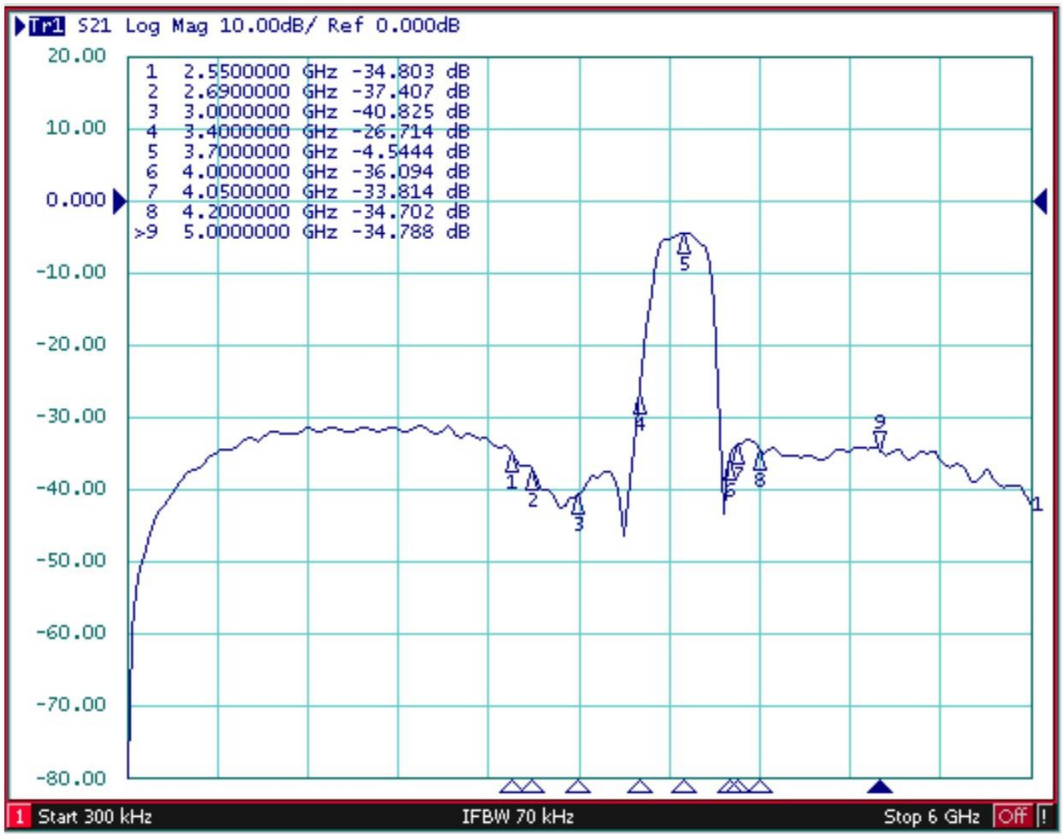


S11 and S22

Group Delay



Far Side



Stability Characteristics

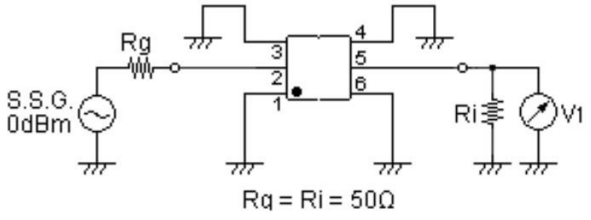
	Test item	Condition of test
1	Mechanical shock	Y1 plane only, 5 pulses, 0.5 ms duration, 1500 g peak acceleration
2	Temperature Humid No Bias	85°C , 85%RH, 1000hours
3	Thermal Shock	-55°C /+125°C,5 min dwell,<1 min transfer time, 1000cycles
4	High Temperature Storage Life	150℃+Preconditioning if Required,1000hrs
5	Human Body Mode ESD	per EIA/JESD22-A114
6	Power Testing	(Maximum Input Power at High Frequency Side of Filter. Ta ≥ Maximum Working Temperature; ≥2Hrs

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

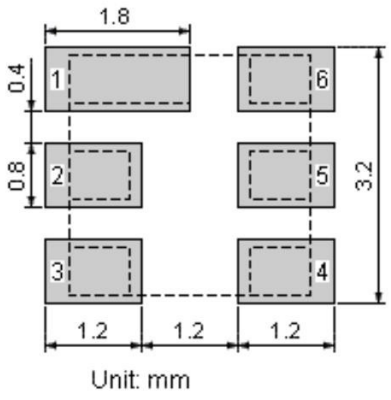
Remarks

- 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.

Test Circuit

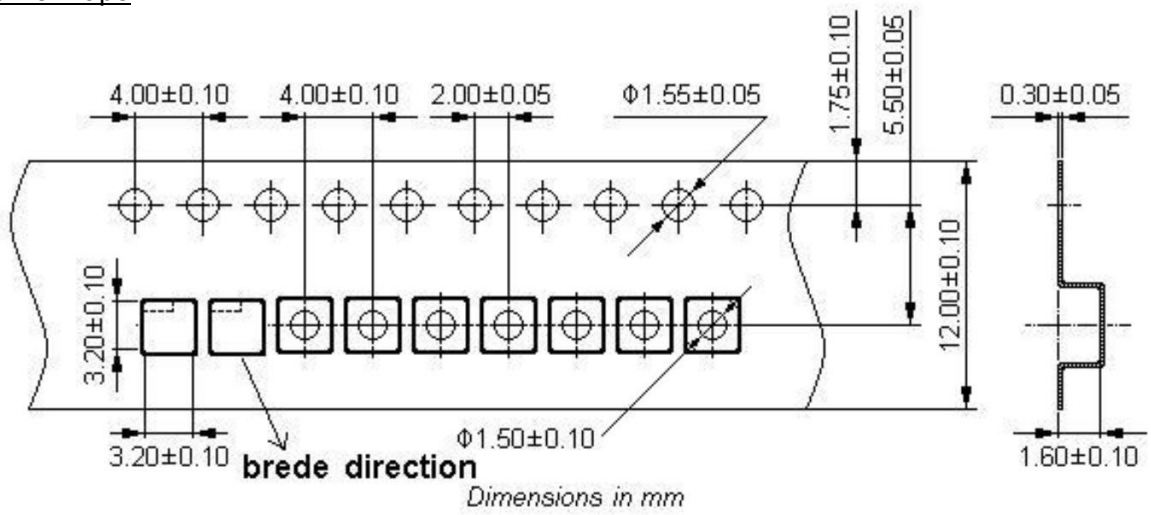


Recommended Land Pattern

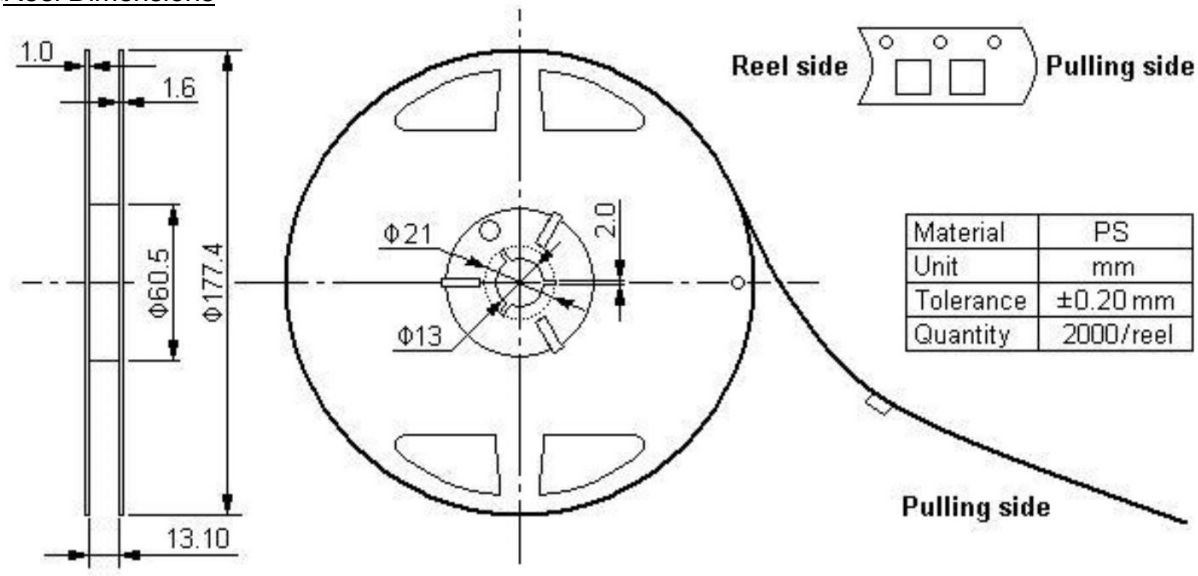


Packing Information

Carrier Tape



Reel Dimensions

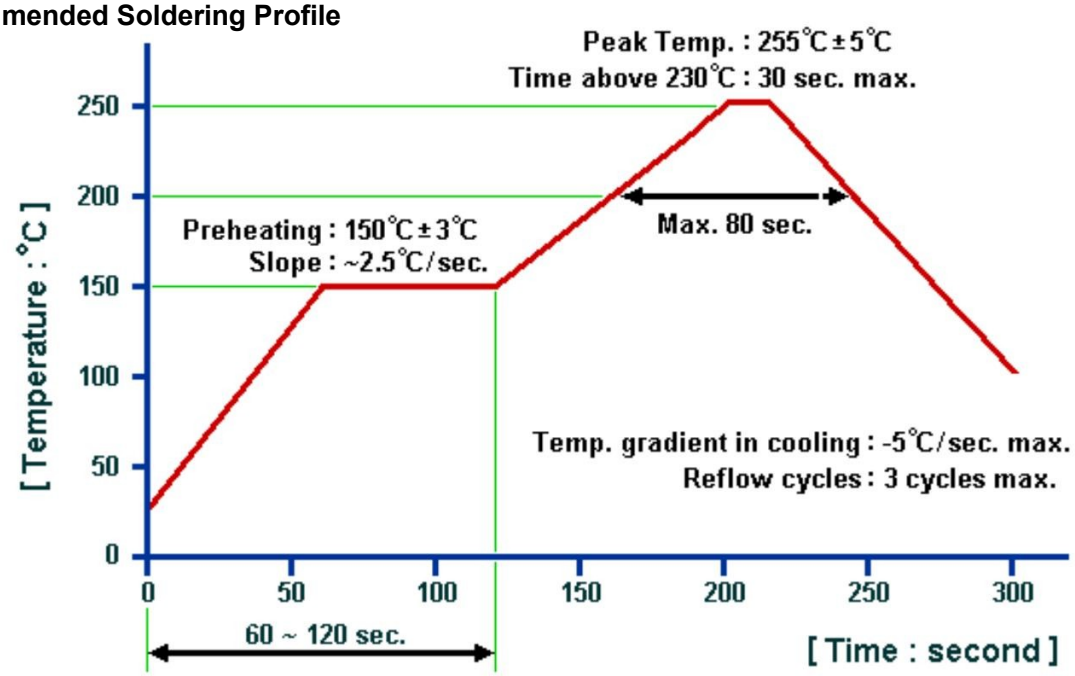


Material	PS
Unit	mm
Tolerance	±0.20 mm
Quantity	2000/reel

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



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1. The specifications of this device are subject to change or obsolescence without notice.
2. Typically, equipment utilizing this device requires emissions testing and government approval, which is the responsibility of the equipment manufacturer.
3. Our liability is only assumed for the Surface Acoustic Wave (SAW) component(s) per se, not for applications, processes and circuits implemented within components or assemblies.
4. For questions on technology, prices and delivery, please contact our sales offices or e-mail winnsky@winnsky.com