

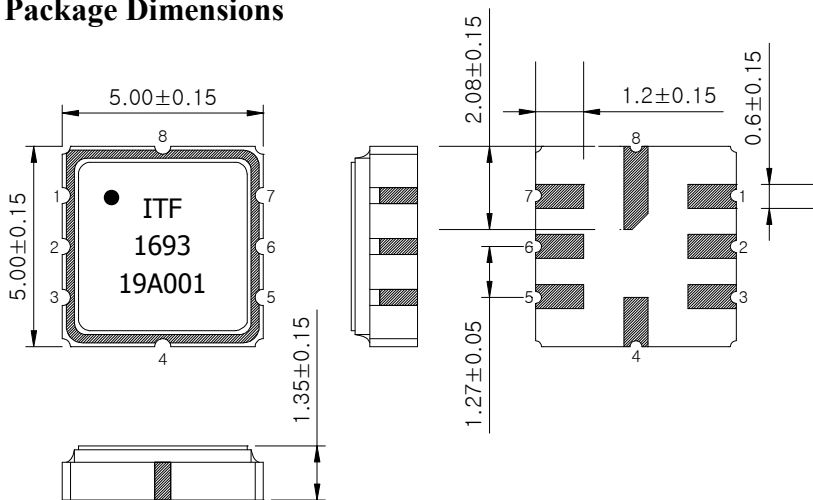
SAW Bandpass Filter F1693



Features

- RF bandpass filter
- Usable bandwidth 0.2 MHz
- Ceramic Surface Mounted Device (SMD) Package (5.0mm * 5.0mm)
- RoHS Compliant

Package Dimensions



Dimensions shown are nominal in millimeters

Body : Al₂O₃ Ceramic

Lid : Kovar, Ni Plated

Terminations : Au plating 0.3 ~ 1.0 um, Over a 1.27 ~ 8.89 um
Ni Plating

Pin Configuration	
2	Input
6	Output
1, 3, 4, 5, 7, 8	Ground

Maximum Ratings

Parameter	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-40	25	85
Storage Temperature Range	°C	-45	-	125
Maximun DC Voltage	V	-	-	6
Power Handling Capability	dBm	-	-	10

Electrostatics Sensitive Device (ESD)

	ITF Co., Ltd. 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809	Part No.	F1693	
		Rev. Date	2019-03-22	
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Specifications

$F_c = 169.5 \text{ MHz}$

		Minimum	Typical	Maximum
Center Frequency (F_c)	MHz	-	169.5	-
Insertion Loss ($F_c \pm 0.1 \text{ MHz}$)	dB	-	2.3	3.0
Amplitude Ripple ($F_c \pm 0.1 \text{ MHz}$)	dB	-	0.7	1.5
Absolute Attenuation				
10.0 ~ 155.0 MHz	dB	40	42	-
155.0 ~ 168.5 MHz		15	16	-
171.4 ~ 171.8 MHz		16	22	-
171.8 ~ 172.8 MHz		7	10	-
172.8 ~ 185.0 MHz		16	22	-
185.0 ~ 300.0 MHz		40	42	-

Notes :

- 1) All specifications are based on the matching schematic shown below, measured by Agilent Network analyzer and full 2 port calibration.
- 2) Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances

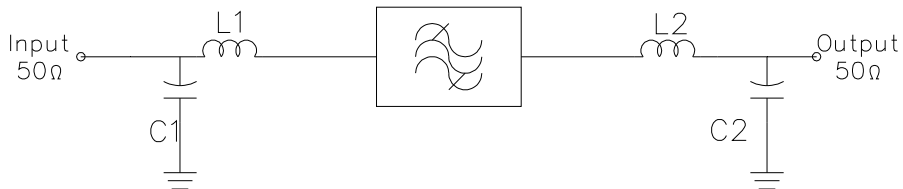
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Matching Schematic

(Actual matching values may vary due to PCB layout and parasitics)



$$L1 = L2 = 180\text{nH}, \quad C1 = C2 = 15\text{pF}$$

Marking Configuration

- 1)
● ITF²⁾
1693³⁾
19A001⁴⁾


1) Pad Number 1 Index

2) Manufacturer name

3) Part Number

4) Lot Number

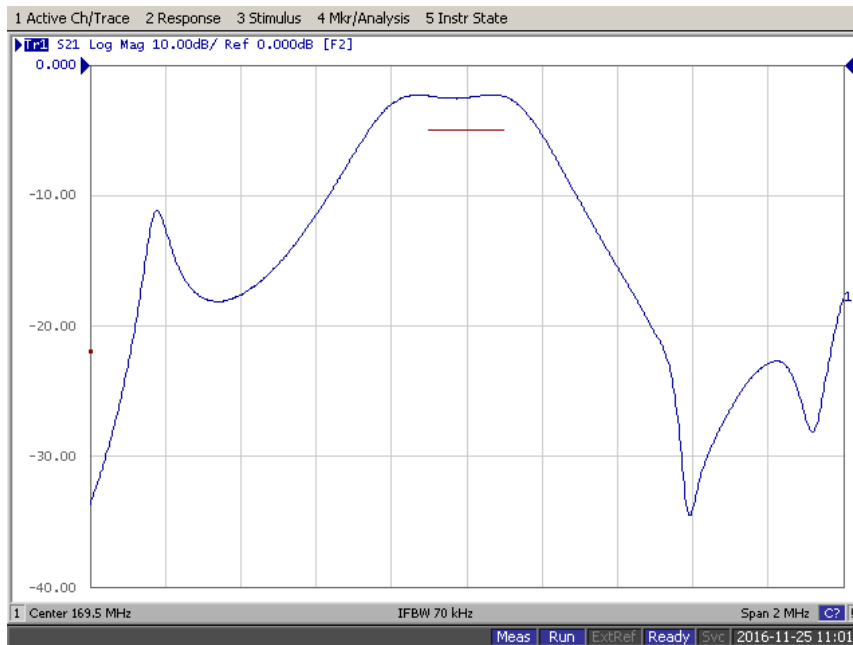
* Ink or Laser Marking available

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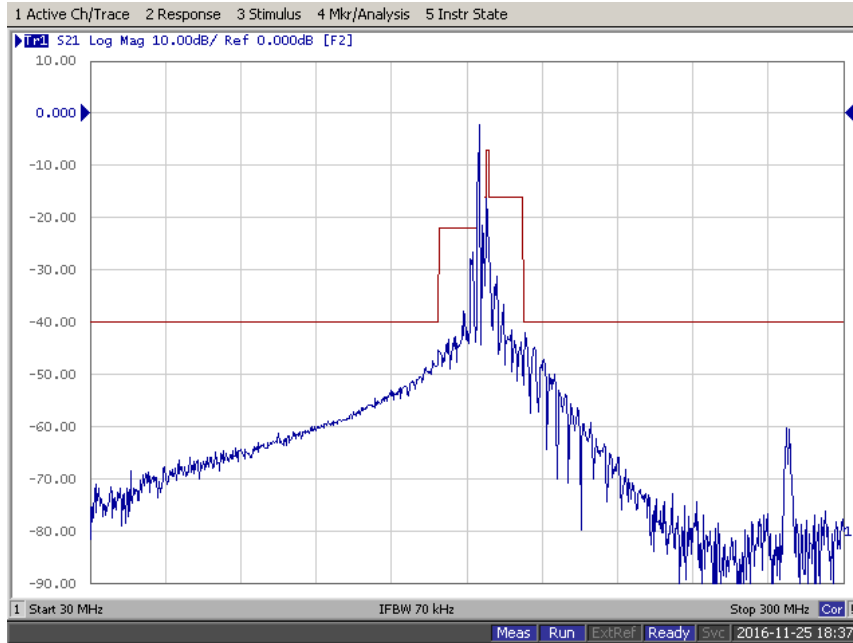



Typical Performance (at 25°C)



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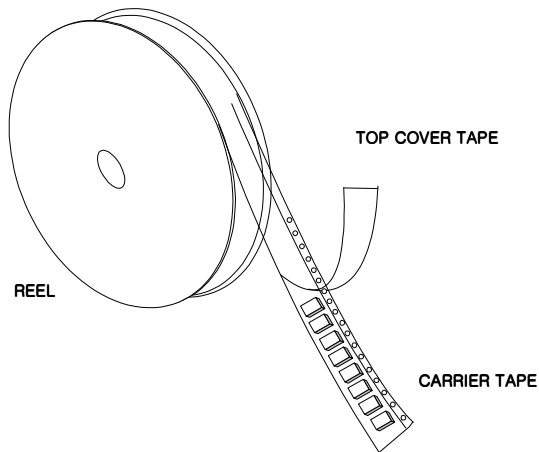
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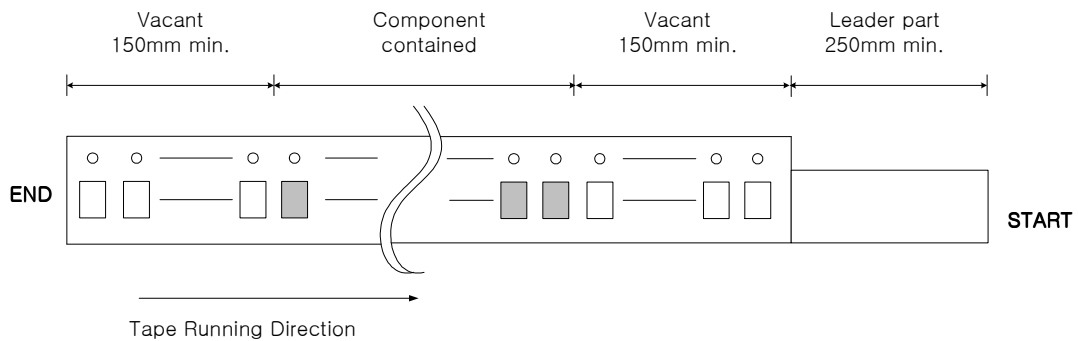
Packing Specification

1. Reeling Quantity : 1000 pcs / reel
2. Taping Structure : The tape shall be wound around the reel in the direction shown below.



Tape Specification

1. Leader part and vacant position specification

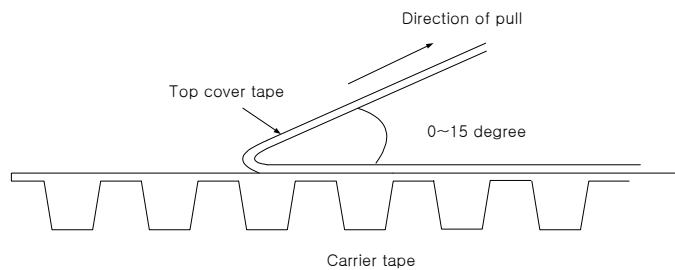


2. Tensile strength of carrier tape

4.4N/mm width

3. Top cover tape adhesion

- 1) pull off angle : 0~15°
- 2) speed : 300mm/min
- 3) force : 20~70g

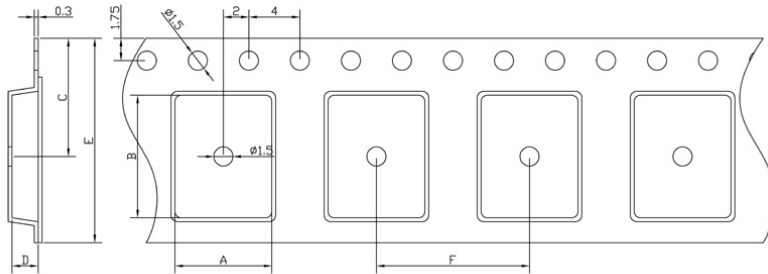


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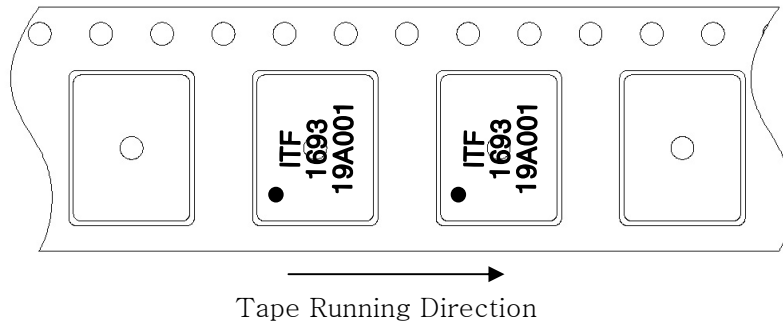


Carrier Tape Dimensions [unit : mm]

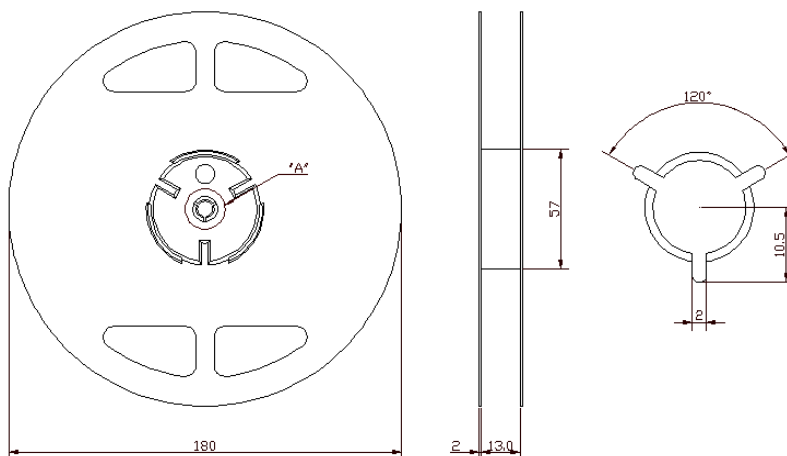


A	5.50 ± 0.1
B	5.50 ± 0.1
C	7.25 ± 0.1
D	1.95 ± 0.1
E	12.00 ± 0.1
F	8.00 ± 0.1

Part Direction



Reel Dimensions [unit : mm]



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