

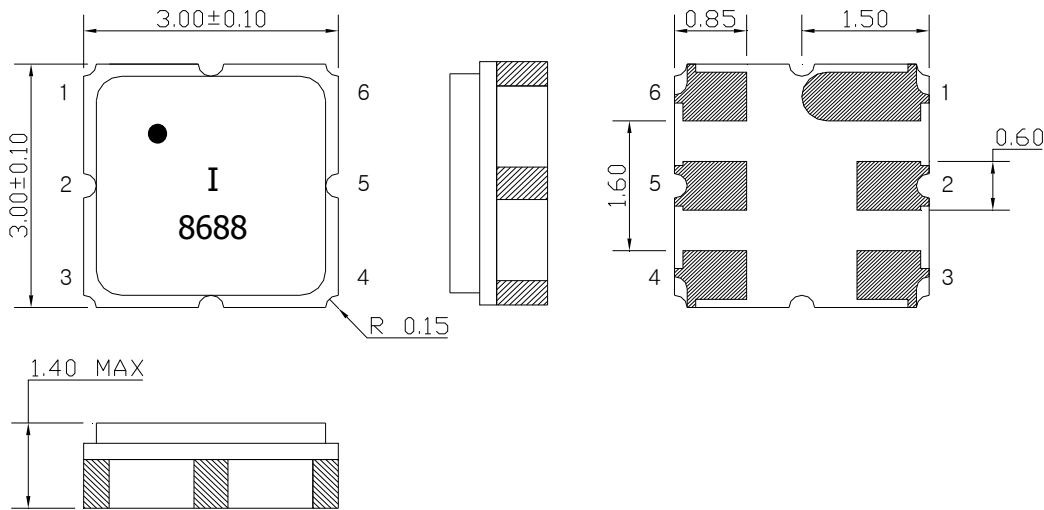
SAW Bandpass Filter F8688



Features

- RF bandpass filter
- Usable bandwidth 1.2 MHz
- Ceramic Surface Mounted Device (SMD) Package (3.0mm × 3.0mm)
- RoHS/RoHS2 (2015/863/EU) 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
5	Output
1, 3, 4, 6	Ground

Maximum Ratings

Parameter	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-35	25	105
Storage Temperature Range	°C	-35	-	105
Power Handling Capability	dBm	-	-	-

Electrostatics Sensitive Device (ESD)

	ITF Co., Ltd. 102-901, 22, Samjak-ro, Ojeong-gu, Bucheon-si, Gyeonggi-do, Korea, 14501	Part No.	F8688	
		Rev. Date	2019-12-12	
		Rev.	NRTF05-AS05	1/7

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Specifications

Fc = 868.6 MHz

		Minimum	Typical	Maximum
Center frequency (Fc)	MHz	-	868.6	-
Minimum insertion attenuation (α_{min})	dB	-	2.7	3.5
Pass band (relative to α_{min}) 868.00 ~ 869.20 MHz	dBc	-	1.0	2.5
Relative attenuation (relative to α_{min})				
10.0 ~ 820.0 MHz		42	47	-
820.0 ~ 859.0 MHz		27	32	-
859.0 ~ 866.6 MHz		20	27	-
866.6 ~ 867.2 MHz		10	20	-
870.4 ~ 871.4 MHz	dB	10	16	-
871.4 ~ 875.0 MHz		20	26	-
875.0 ~ 890.0 MHz		25	32	-
890.0 ~ 950.0 MHz		37	42	-
950.0 ~ 1500.0 MHz		42	47	-
1500.0 ~ 2500.0 MHz		52	57	-
Input/Output impedance	Ohm	-	50	-

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

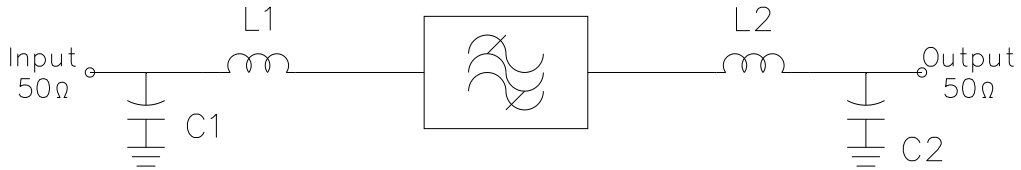
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Matching Schematic

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



$$L1 = L2 = 15\text{nH}, \quad C1 = C2 = 4.3\text{pF}$$

Marking Configuration

- 1)
I 2)
8688 3)

1) Pad Number 1 Index

2) Manufacturer name

3) Marking Number

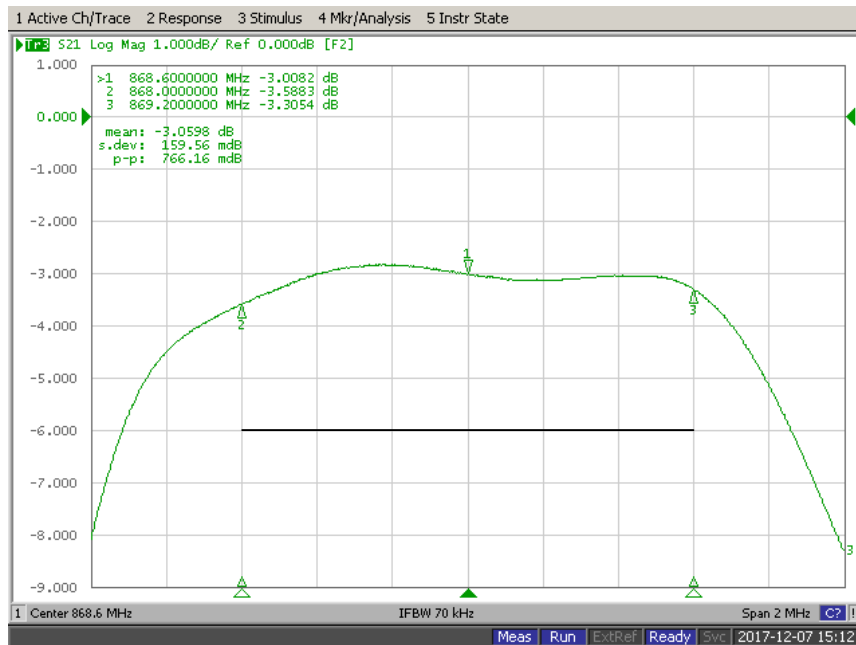
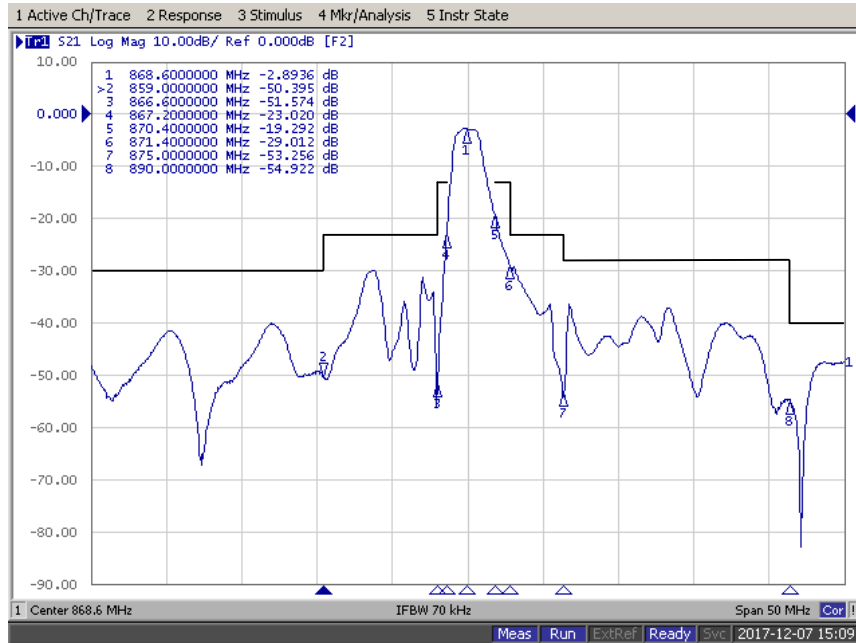
* Ink or Laser Marking available


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Typical Performance (at 25°C)

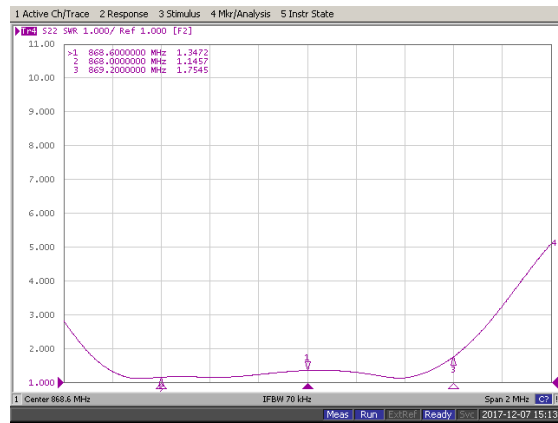
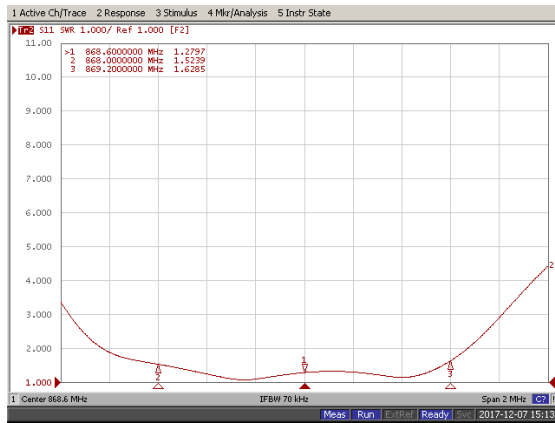


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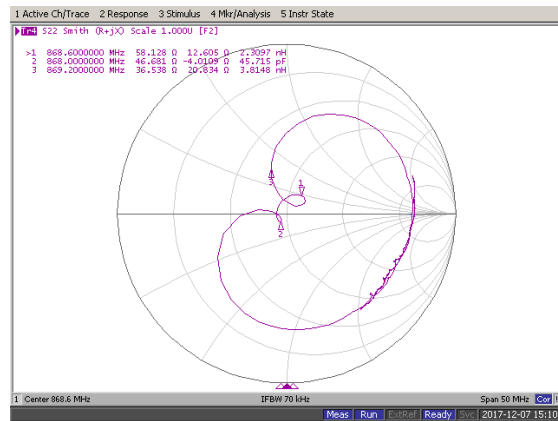
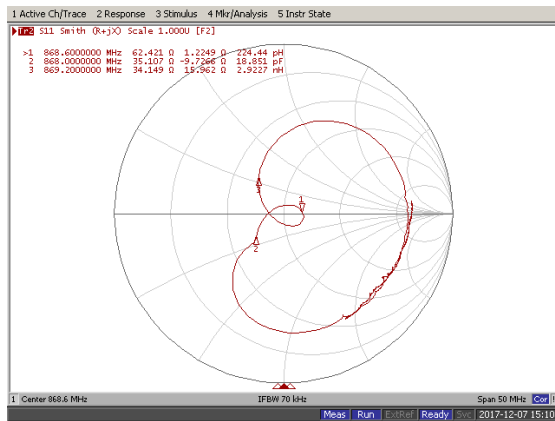
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Input / Output VSWR Charts



Input / Output Smith Charts



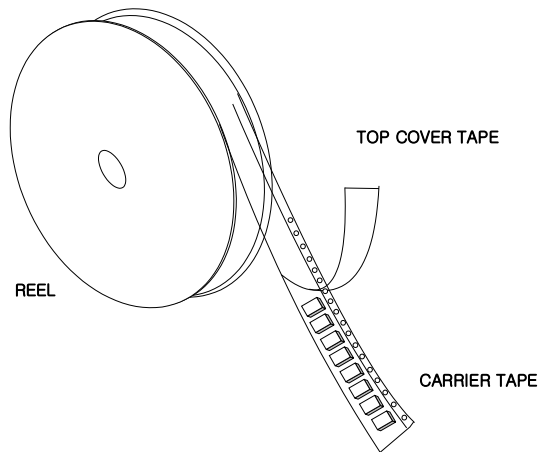
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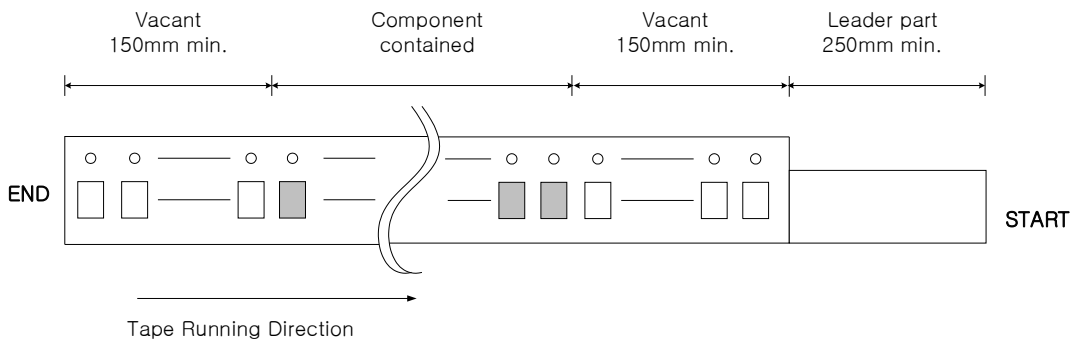
Packing Specification

1. Reeling Quantity : 1000 pcs / reel or 3000 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

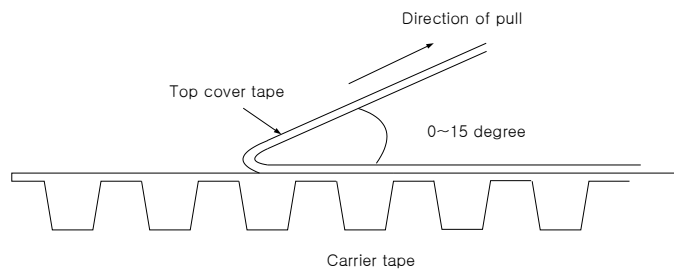


2. Tensile strength of carrier tape

4.4N/mm width

3. Top cover tape adhesion

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

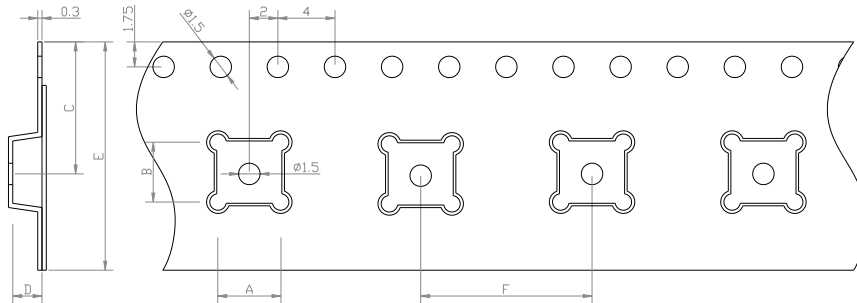


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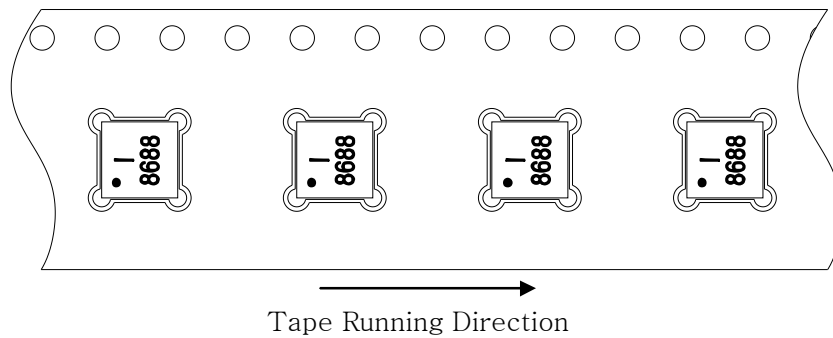


Carrier Tape Dimensions [unit : mm]

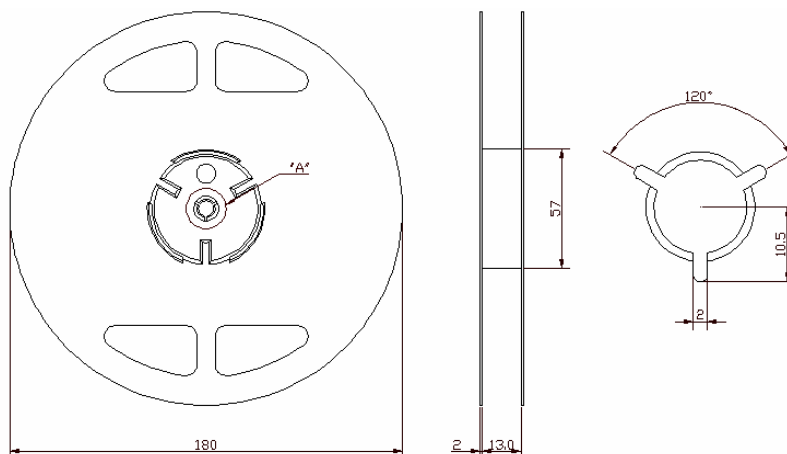


A	3.40 ± 0.1
B	3.40 ± 0.1
C	7.25 ± 0.1
D	1.70 ± 0.1
E	12.00 ± 0.1
F	8.00 ± 0.1

Part Direction



Reel Dimensions [unit : mm]



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