

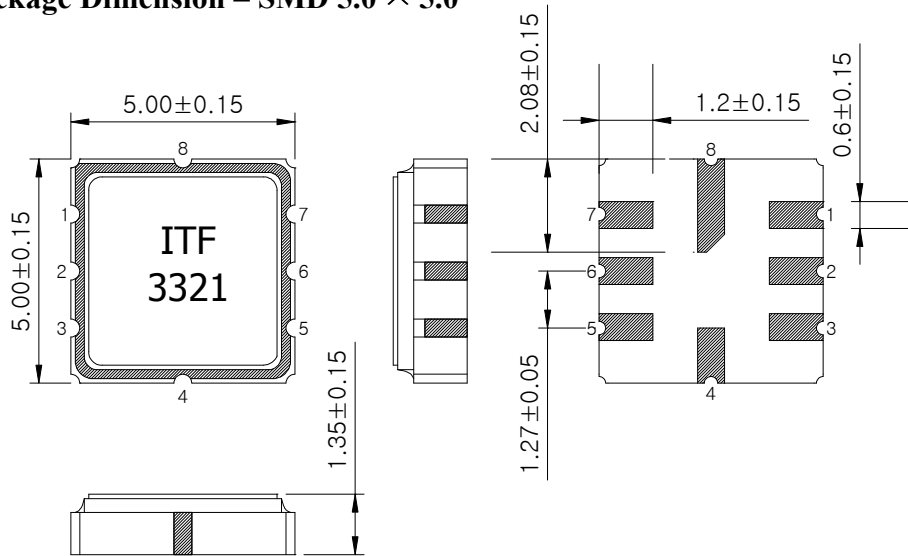
SAW Bandpass Filter F3321



Features

- RF bandpass filter
- High attenuation
- Usable bandwidth 6MHz
- No matching 50Ω single-ended operation
- Ceramic Surface Mounted Device (SMD) Package (5.0 mm * 5.0 mm)
- RoHS Compliant

Package Dimension – SMD 5.0 × 5.0



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	Case ground

Maximum Ratings

Parameter	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-30	25	85
Storage Temperature Range	°C	-30	25	85
Power Handling Capability	dBm		0	

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.	NSMA01-F3321	
		Rev. Date	2011-1-14	
		Rev.	AS 01	1/7

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Specifications

Fc = 332 MHz


Terminating source impedance : 50Ω

Terminating load impedance : 50Ω

	Minimum	Typical	Maximum	Unit
Center Frequency (Fc)	-	332	-	MHz
Insertion Loss (In Fc +/- 3 MHz)	-	2.0	3.5	dB
Amplitude Ripple (In Fc +/- 3 MHz)	-	1.0	1.5	dBp-p
VSWR (In Fc +/- 3 MHz)	-	2.0	2.5	
Relative Attenuation				
DC ~ 312 MHz	35.0	40.0	-	dB
352 ~ 800 MHz	35.0	40.0	-	
Temperature Range (Operational)	-30	25	85	°C
Input RF Power (In Fc +/- 3 MHz)	-	0	-	dBm
Input/Output Impedance		50		Ohms

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)



Marking Configuration


ITF ¹⁾

3321 ²⁾

1) Pad Number 1 Index

2) Manufacturer name

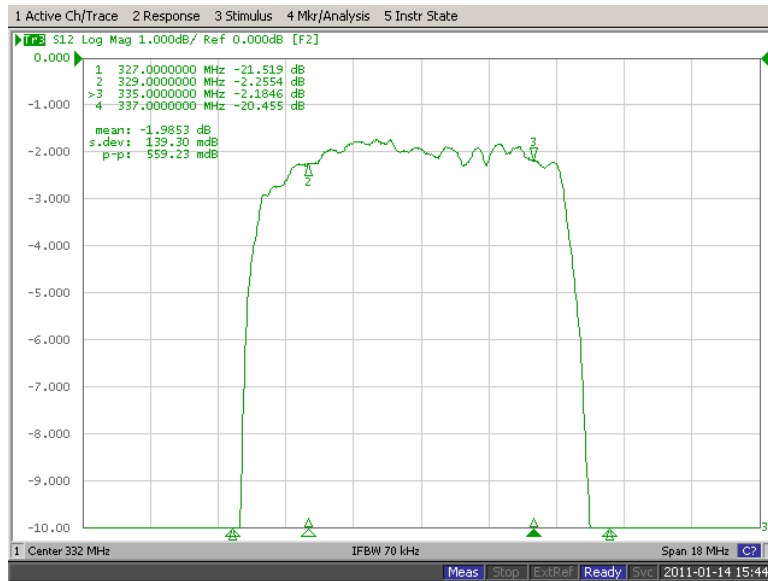
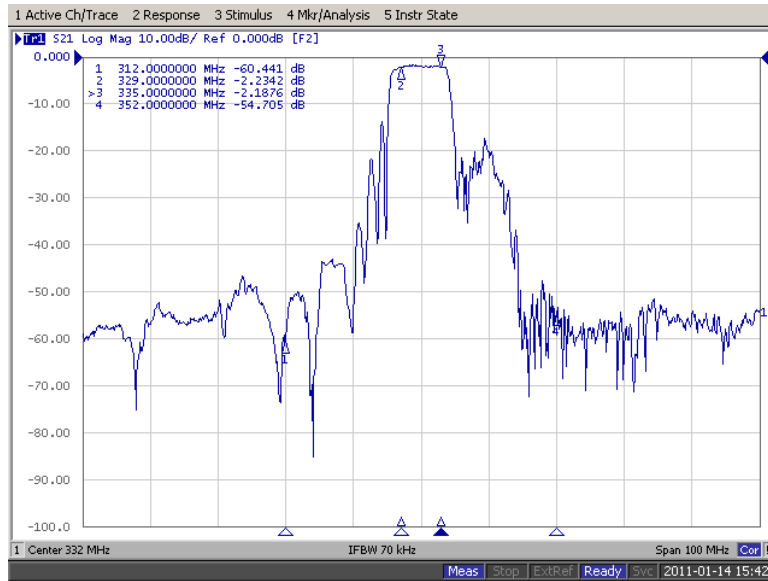
3) Marking Number

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Typical Performance (at 25°C)



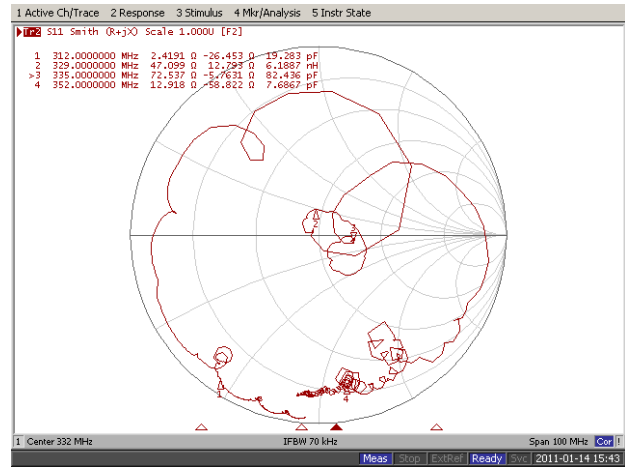
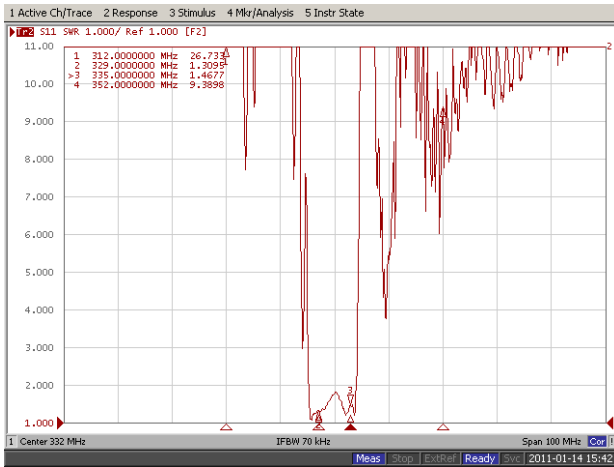
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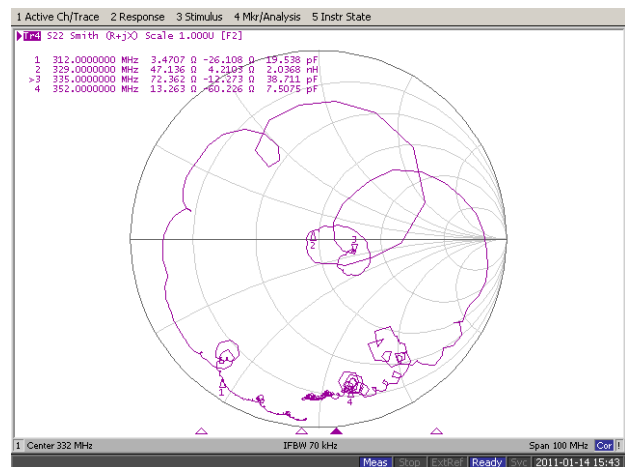
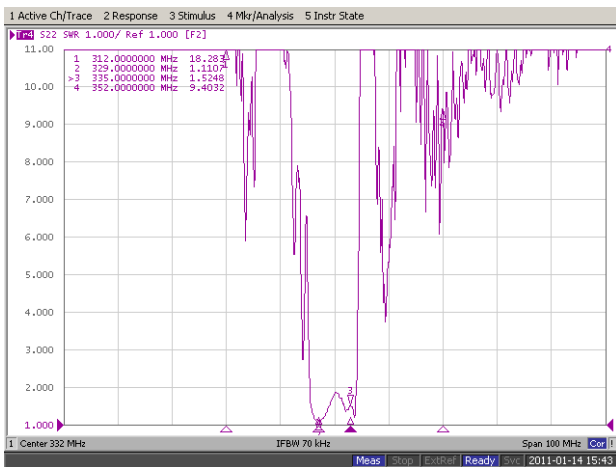
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Input / Output VSWR Charts



Input / Output Smith Charts

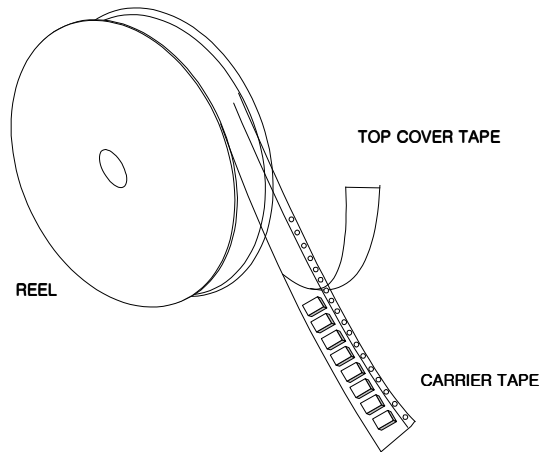


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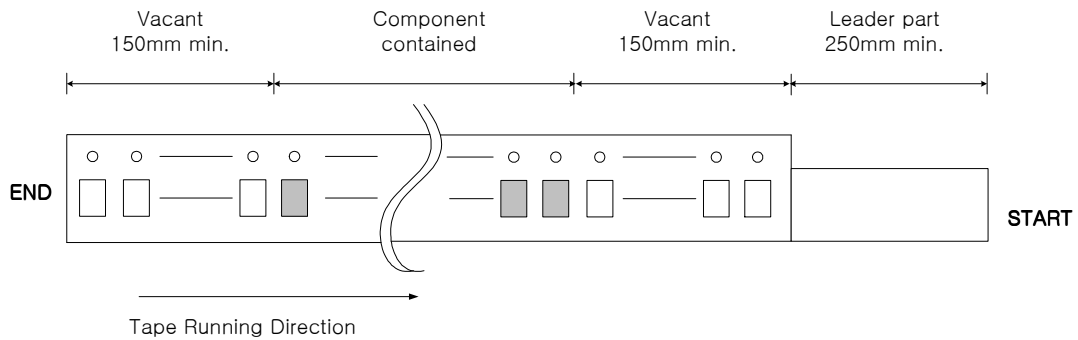
Packing Specification

1. Reeling Quantity : 1000 pcs / reel
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

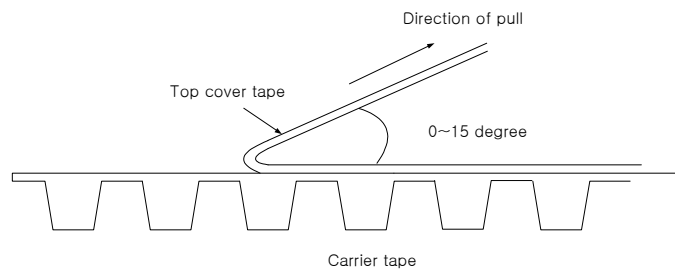


2. Tensile strength of carrier tape

4.4N/mm width

3. Top cover tape adhesion

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

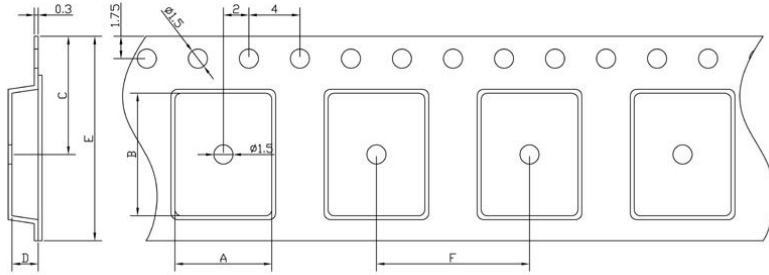


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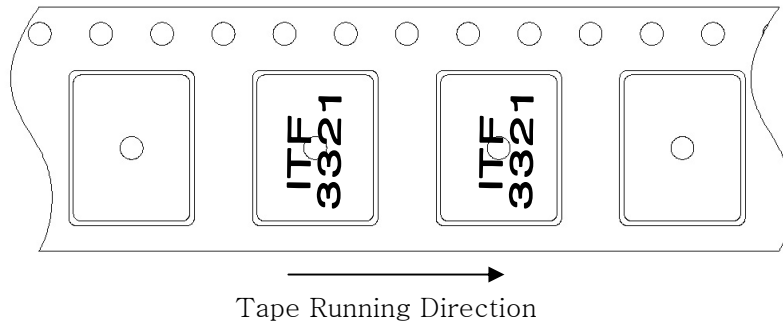


Carrier Tape Dimensions [unit : mm]

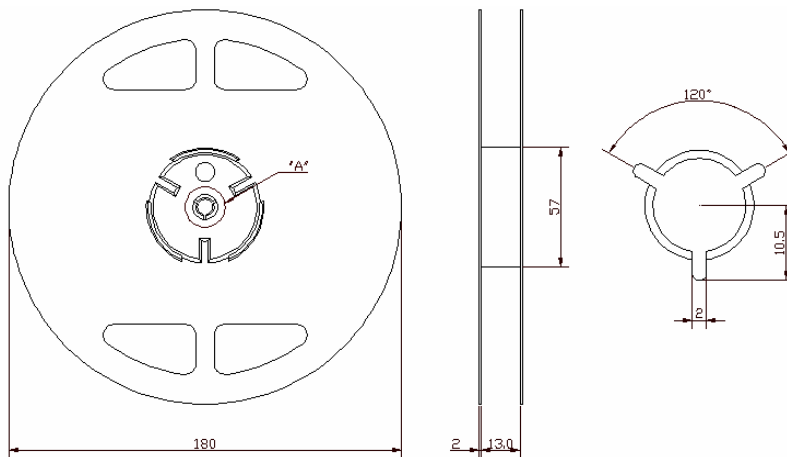


A	5.50 ± 0.1
B	5.50 ± 0.1
C	7.25 ± 0.1
D	1.95 ± 0.1
E	12.00 ± 0.1
F	8.00 ± 0.1

Part Direction



Reel Dimensions [unit : mm]



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