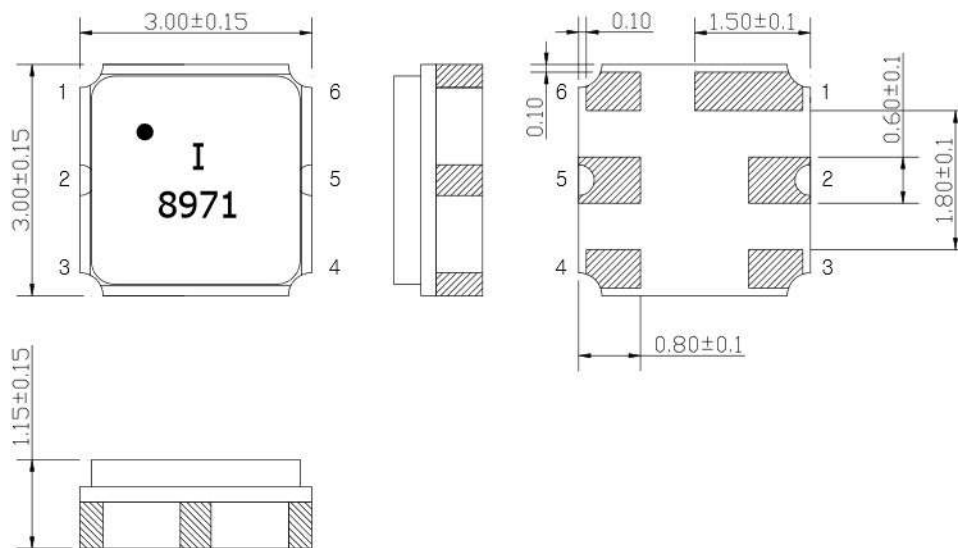


# SAW Bandpass Filter F8971

## Features

- EGSM applications
- Usable bandwidth of 35 MHz
- No impedance matching require for operation at 50  $\Omega$
- Ceramic Surface Mounted Device Package ( 3.0 mm \* 3.0 mm )
- Single-ended Operation
- RoHS Compliant

## Package Dimensions



Dimensions shown are nominal in millimeters

Body : Al<sub>2</sub>O<sub>3</sub> Ceramic

Lid : Kovar, Ni Plated

Terminations : Au plating 0.3 ~ 1.0  $\mu$ m, Over a 1.27 ~ 8.89  $\mu$ m  
Ni Plating


### Pin Configurations

2	Input
5	Output
1, 3, 4, 6	Case ground

## Maximum Ratings

Parameters	Unit	Minimum	Typical	Maximum
Operating Temperature Range	$^{\circ}$ C	-25	25	75
Storage Temperature Range	$^{\circ}$ C	-40	-	85
Power Handling Capability	dBm	-	-	5

Electrostatics Sensitive Device (ESD)

	<b>ITF Co., Ltd.</b> 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809	Part No.	F8971	
		Rev. Date	2008-09-23	
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# SAW Bandpass Filter F8971

## Specifications

	Minimum	Typical	Maximum	Unit
Center Frequency ( Fc )	-	897.5	-	MHz
Insertion Loss (In Fc +/- 17.5 MHz)	-	2.1	3.0	dB
Amplitude Ripple (In Fc +/- 17.5 MHz)	-	1.0	2.0	dBp-p
VSWR (In Fc +/- 17.5 MHz)	-	2.0	2.6	
Relative Attenuation				
DC ~ 860.0 MHz	17.0	19.0	-	dB
925.0 MHz ~ 935.0 MHz	5.0	12.0	-	
935.0 MHz ~ 960.0 MHz	20.0	24.0	-	
980.0 MHz ~ 2000.0 MHz	20.0	22.0	-	
Temperature Range (Operational)	-20	25	75	°C
Input RF Power (In Fc +/- 17.5 MHz)			5	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
- 3) All attenuation measurements are measured relative to insertion loss

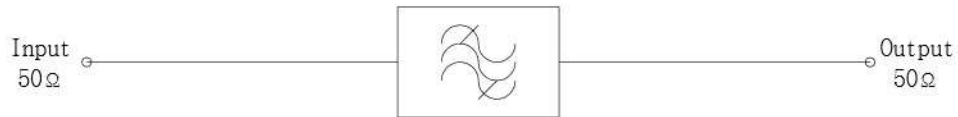
	<b>ITF Co., Ltd.</b> 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809	Part No.	F8971	
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# SAW Bandpass Filter F8971

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## Matching Schematic

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



## Marking Configuration


●<sup>1)</sup>  
I<sup>2)</sup>  
9473<sup>3)</sup>

1) Pad Number 1 Index

2) Manufacturer name

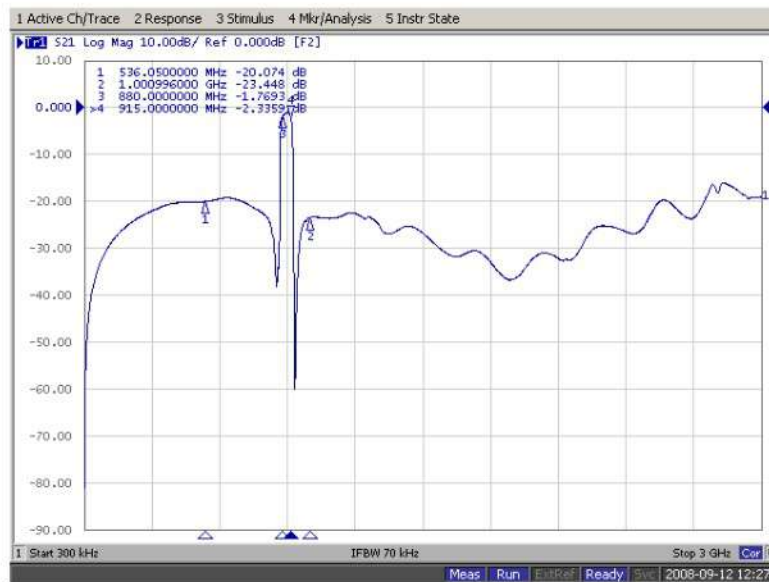
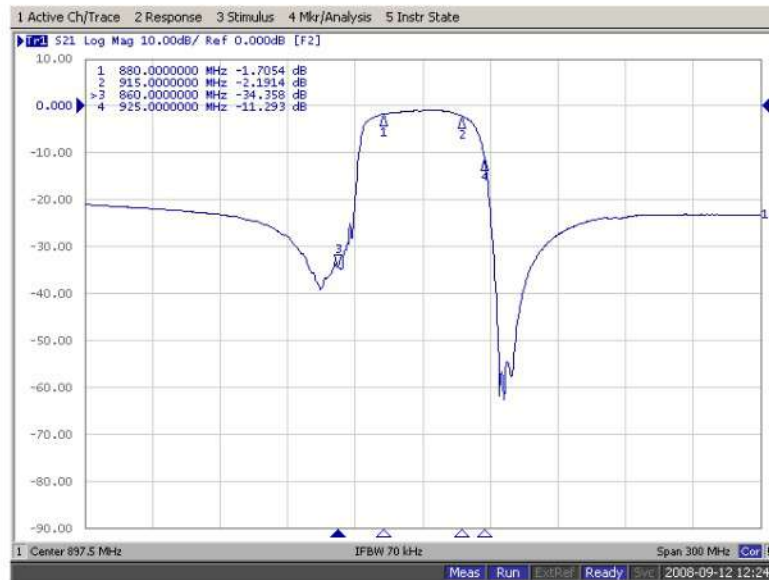
3) Marking Number


\* Ink or Laser Marking available

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# SAW Bandpass Filter F8971

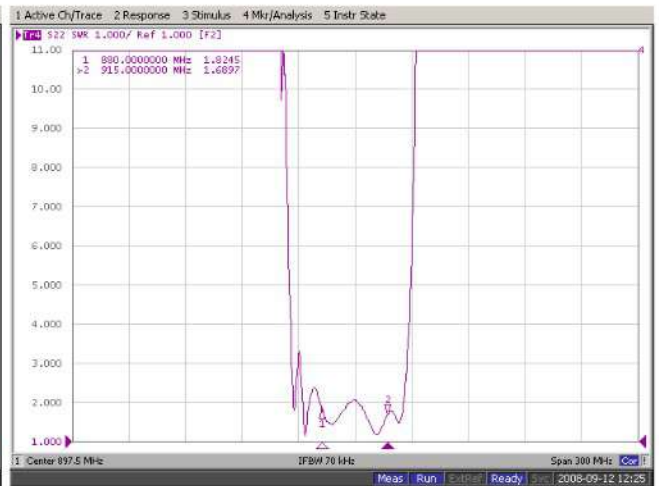
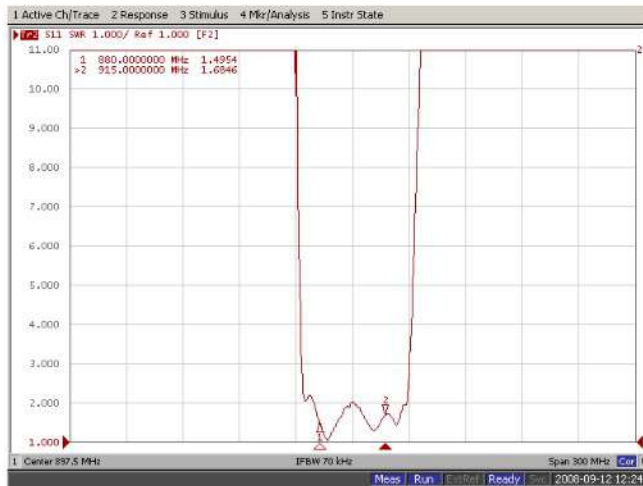
## Typical Performance ( at 25°C )



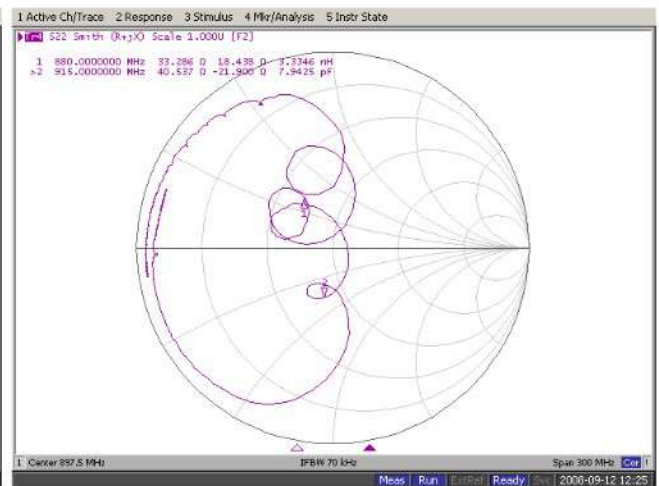
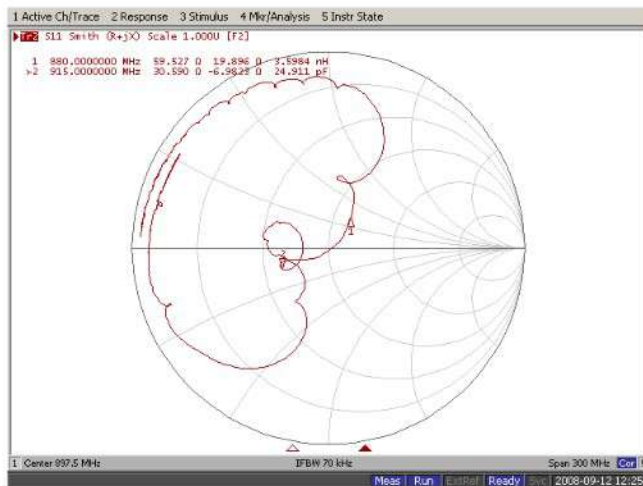
	<b>ITF Co., Ltd.</b> 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809	Part No.	F8971	
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# SAW Bandpass Filter F8971

## Input / Output VSWR Charts



## Input / Output Smith Charts



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Gyeonggi-Do, Korea 421-809

Part No.

F8971

Rev. Date

2008-09-23

Rev.

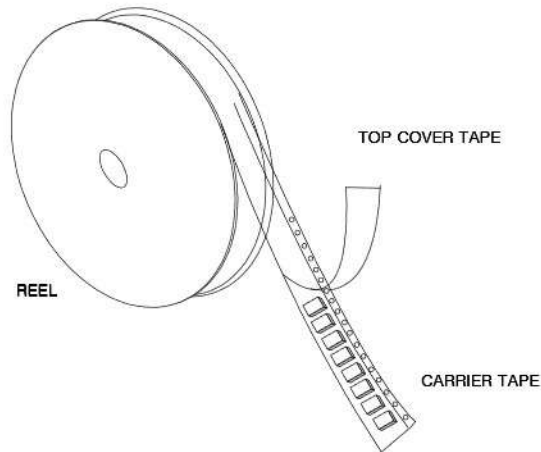
NC8007-AS01

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# SAW Bandpass Filter F8971

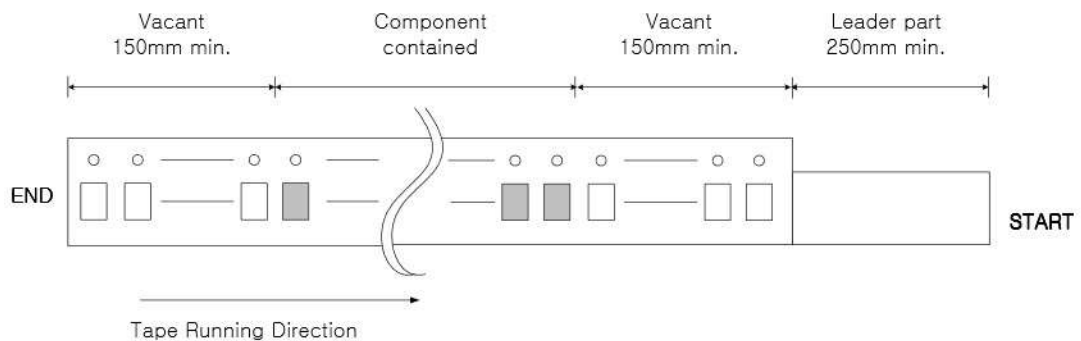
## Packing Specification

1. Reeling Quantity : 3000 pcs / 13" reel ( or 1000 pcs / 7" 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

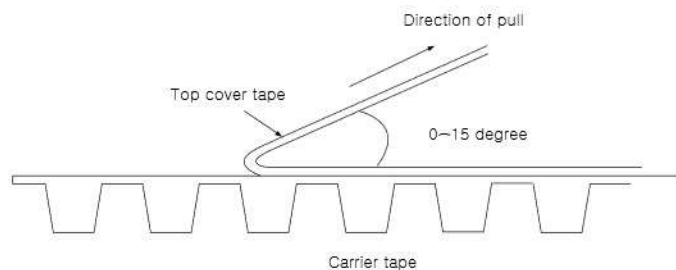



2. Tensile strength of carrier tape

4.4N/mm width

3. Top cover tape adhesion

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

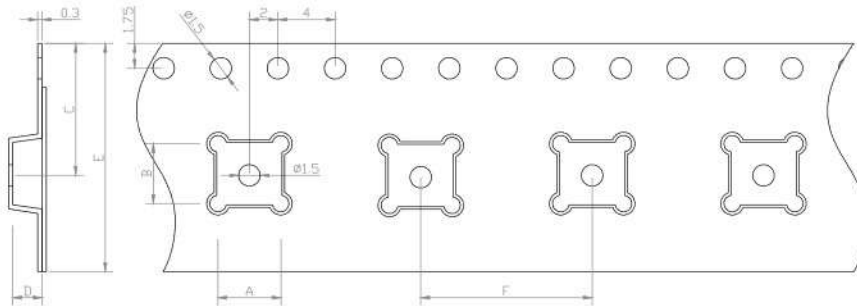


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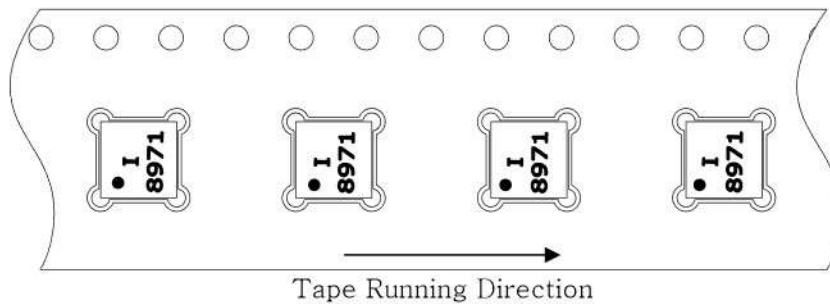
# SAW Bandpass Filter F8971

## Carrier Tape Dimensions [unit : mm]

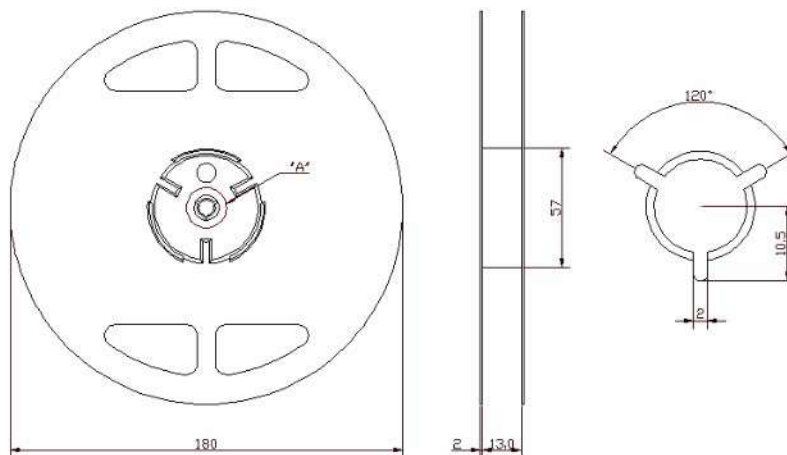



A	3.40 ± 0.1
B	3.40 ± 0.1
C	7.25 ± 0.1
D	1.70 ± 0.1
E	12.00 ± 0.1
F	8.00 ± 0.1

## Part Direction



## Reel Dimensions [unit : mm]



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