

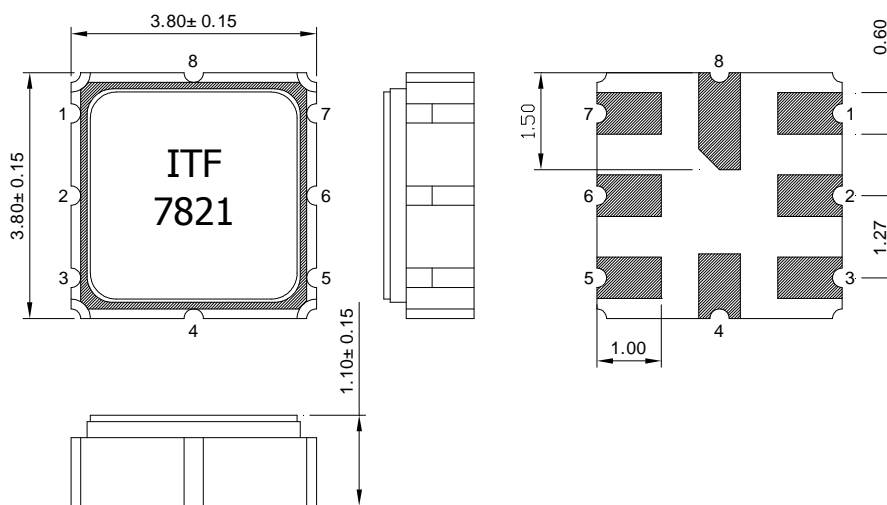
# SAW Bandpass Filter F7821



## Features

- RF bandpass filter
- High attenuation
- No matching 50Ω single-ended operation
- Ceramic Surface Mounted Device (SMD) Package ( 3.8 mm \* 3.8 mm )
- RoHS Compliant

## Package Dimension – SMD 3.8 × 3.8



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 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	℃	-20	25	70
Storage Temperature Range	℃	-40	25	85
Power Handling Capability	dBm		10	

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.	F7821	
		Rev. Date	2011-04-06	
		Rev.	NCMC04-AS02	1/7

# SAW Bandpass Filter F7821



## Specifications

Fc = 782.0 MHz


Terminating source impedance : 50Ω

Terminating load impedance : 50Ω

	Minimum	Typical	Maximum	Unit
Center Frequency ( Fc )	-	782	-	MHz
Insertion Loss (In Fc +/- 5 MHz)	-	1.4	2.5	dB
Amplitude Ripple (In Fc +/- 5 MHz)	-	0.5	1.5	dBp-p
VSWR (In Fc +/- 5 MHz)	-	1.2	2.0	
Relative Attenuation				
10 ~ 700 MHz	30	41	-	dB
746 ~ 756 MHz	40	47	-	
840 ~ 890 MHz	35	44	-	
Temperature Range (Operational)	-20	25	70	°C
Input RF Power (In Fc +/- 5 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

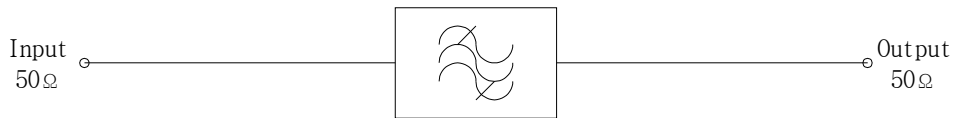
 Integrated Technology Future	<b>ITF Co., Ltd.</b> 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809	Part No.	F7821	
		Rev. Date	2011-04-06	
		Rev.	NCMC04-AS02	2/7

# SAW Bandpass Filter F7821



## Matching Schematic

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



## Marking Configuration


ITF <sup>1)</sup>

7821 <sup>2)</sup>

1) Manufacturer name

2) Marking Number

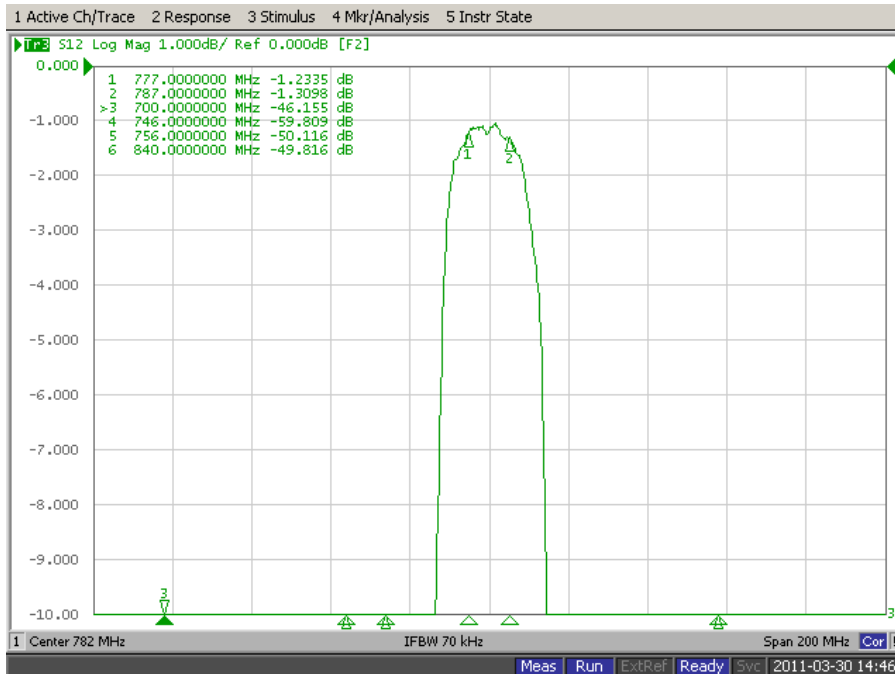
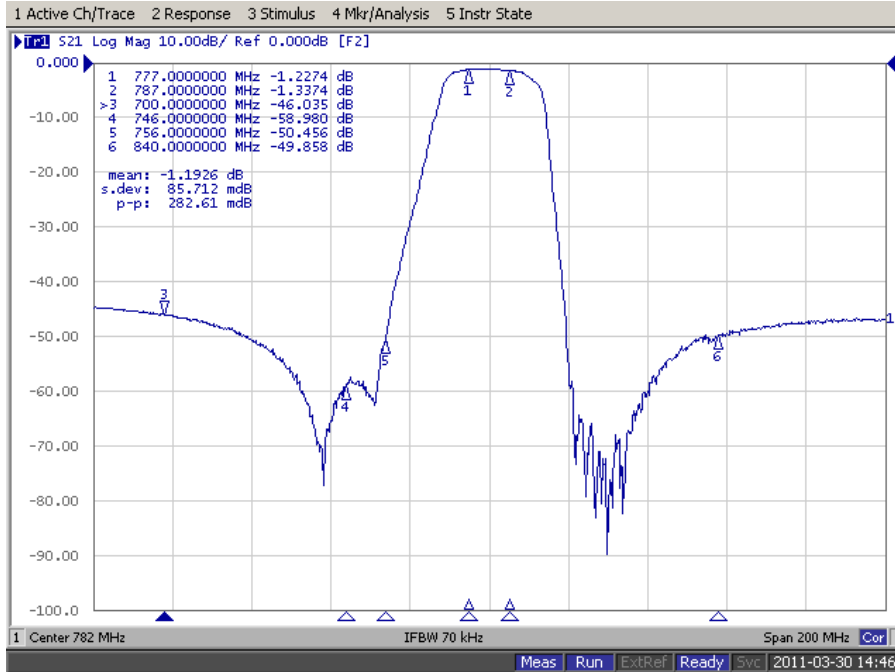
\* Ink or Laser Marking available

 Integrated Technology Future	<b>ITF Co., Ltd.</b> 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809	Part No.	F7821	
		Rev. Date	2011-04-06	
		Rev.	NCMC04-AS02	3/7

# SAW Bandpass Filter F7821



## Typical Performance ( at 25°C )

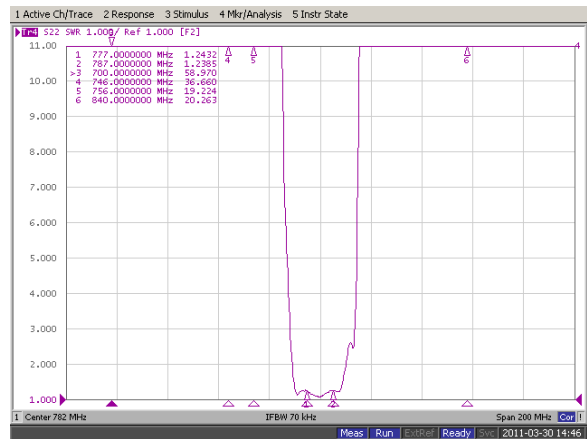
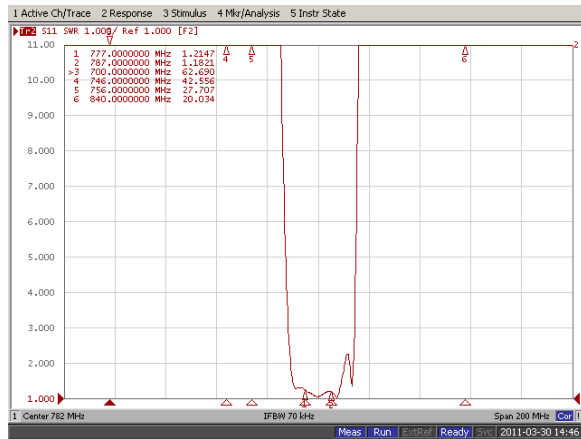


	<b>ITF Co., Ltd.</b> 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809	Part No.	F7821	
		Rev. Date	2011-04-06	
		Rev.	NMCM04-AS02	4/7

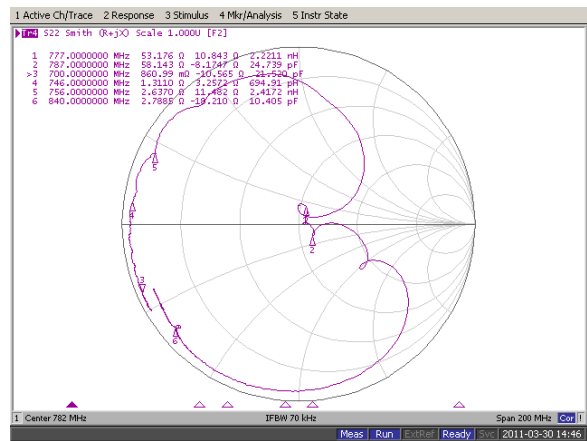
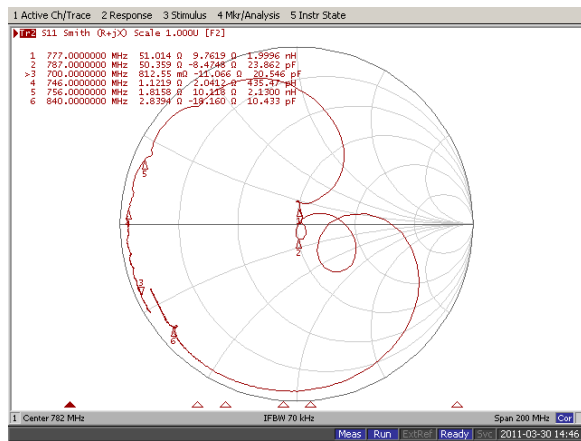
# SAW Bandpass Filter F7821



## Input / Output VSWR Charts



## Input / Output Smith Charts



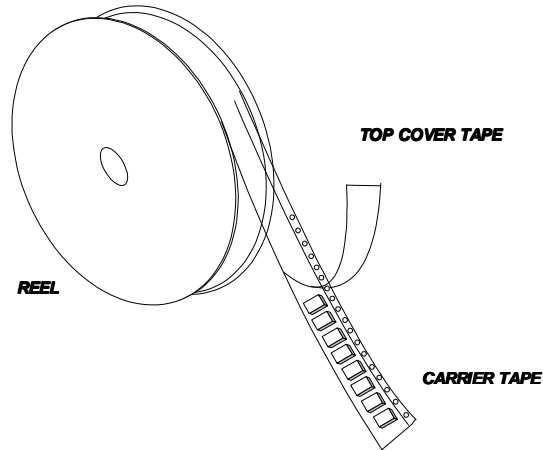
	<b>ITF Co., Ltd.</b> 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809	Part No.	F7821	
		Rev. Date	2011-04-06	
		Rev.	NCMC04-AS02	5/7

# SAW Bandpass Filter F7821



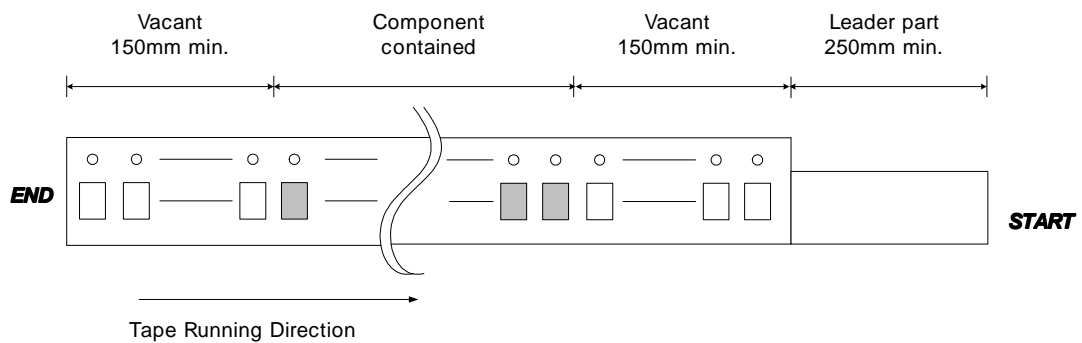
## Packing Specification

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

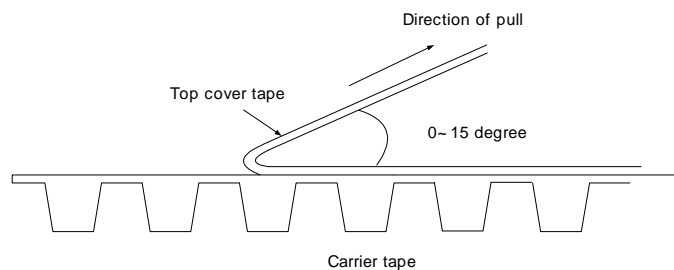


2. Tensile strength of carrier tape

4.4N/mm width

3. Top cover tape adhesion

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

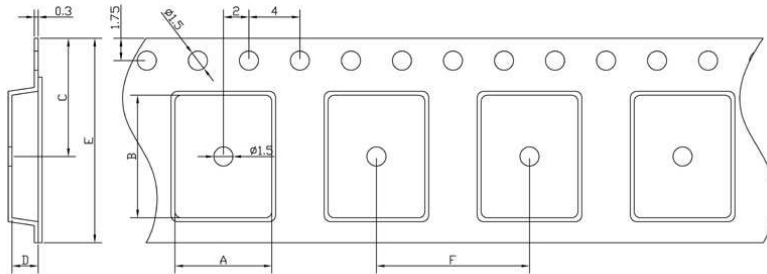


	<b>ITF Co., Ltd.</b> 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809	Part No.	F7821	
		Rev. Date	2011-04-06	
		Rev.	NCMC04-AS02	6/7

# SAW Bandpass Filter F7821

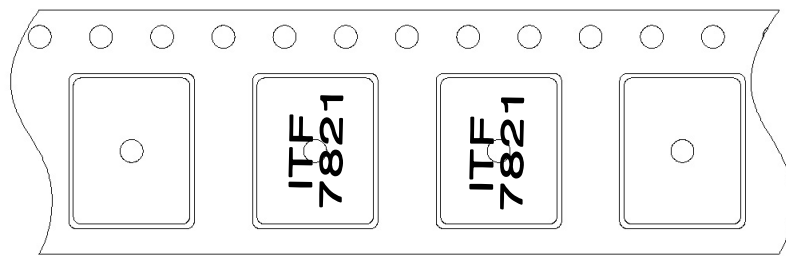


## Carrier Tape Dimensions [unit : mm]



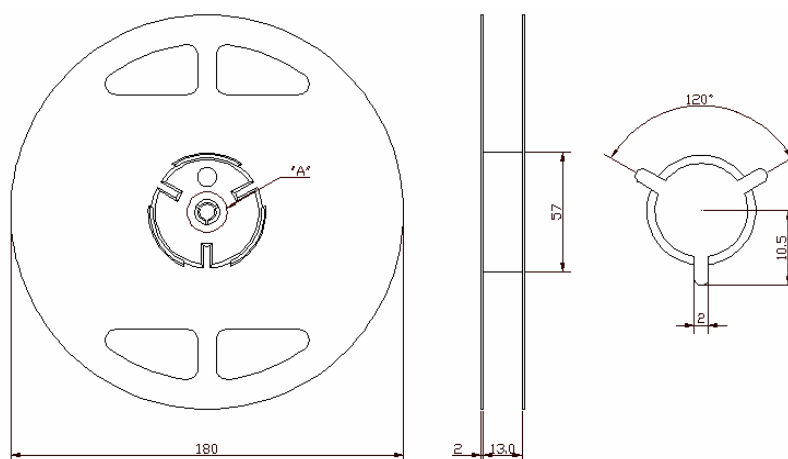
A	4.30 ± 0.1
B	4.30 ± 0.1
C	7.25 ± 0.1
D	1.70 ± 0.1
E	12.00 ± 0.1
F	8.00 ± 0.1


## Part Direction



→  
Tape Running Direction

## Reel Dimensions [unit : mm]



 Integrated Technology Future	<b>ITF Co., Ltd.</b> 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809	Part No.	F7821	
		Rev. Date	2011-04-06	
		Rev.	NCMC04-AS02	7/7