

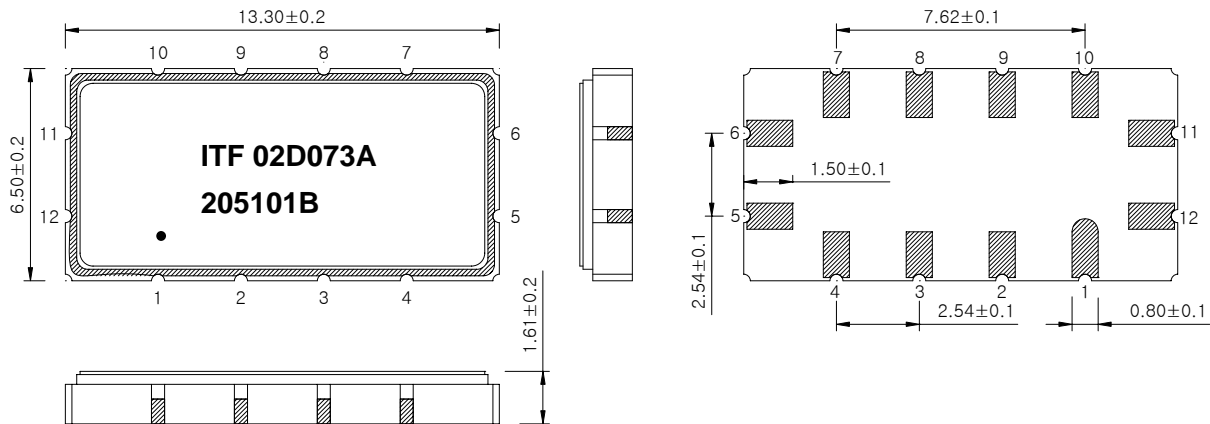
# SAW Bandpass Filter 205101B



## Features

- IF bandpass filter
- High attenuation
- 50 ohms single-ended operation
- SMD Package 13.3mm × 6.5mm × 1.6mm

## Package Dimension



## Package S1365

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

11	Input
5	Output
6, 12	Ground
1, 2, 3, 4, 7, 8, 9, 10	Case ground

## Maximum Ratings

Parameter	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	-10	25	60
Storage Temperature Range	°C	-40	-	85

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.	205101B	
		Rev. Date	2004-07-14	
		Rev.	NR3006-AS32	1/7

# SAW Bandpass Filter 205101B



## Electrical Specification

$F_c = 70.0\text{MHz}$


Terminating source impedance :  $50\Omega$  and matching network

Terminating load impedance :  $50\Omega$  and matching network

		Minimum	Typical	Maximum
Center Frequency at room temp.	MHz	69.955	70.0	70.044
Insertion Loss	dB	-	5.0	6.0
3dB Bandwidth	MHz	0.030	0.035	-
40dB Bandwidth	MHz	-	0.170	0.200
Absolute Group Delay at $F_c$	usec	-	15	-
Group Delay Variation at 3dB	usec	-	5	-
Relative Attenuation 0.3 MHz ... 69.8 MHz 70.2 MHz ... 71.0 MHz 71.0 MHz ... 75.0 MHz	dB	50 35 50	55 40 55	-
Temperature Coefficient of Frequency	ppm/ $^{\circ}\text{C}^2$	-	-0.03	-

### Notes :

- 1) All specifications are based on the matching schematic shown below, measured by Agilent Network analyzer and full 2 port calibration.
- 2) All attenuation measurements are measured relative to insertion loss

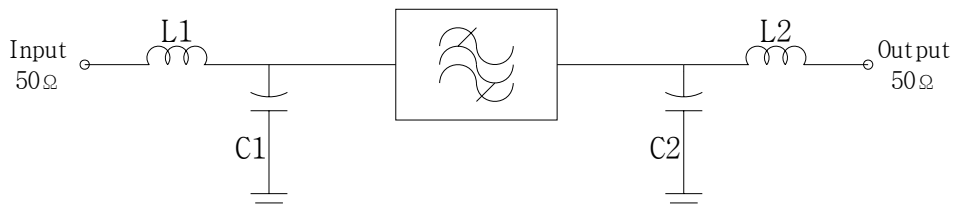
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# SAW Bandpass Filter 205101B



## Matching Schematic

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



L1, L2 = 680 nH


C1, C2 = 0.5 pF

## Marking Configuration

ITF<sup>1)</sup> 02D073<sup>2)</sup> A<sup>3)</sup>

205101B<sup>4)</sup>

- 1) Manufacturer name
- 2) Lot Number
- 3) Group Name ( \*\*refer to the next page )
- 4) Part Number


 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.	205101B	
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# SAW Bandpass Filter 205101B



## Marking Example

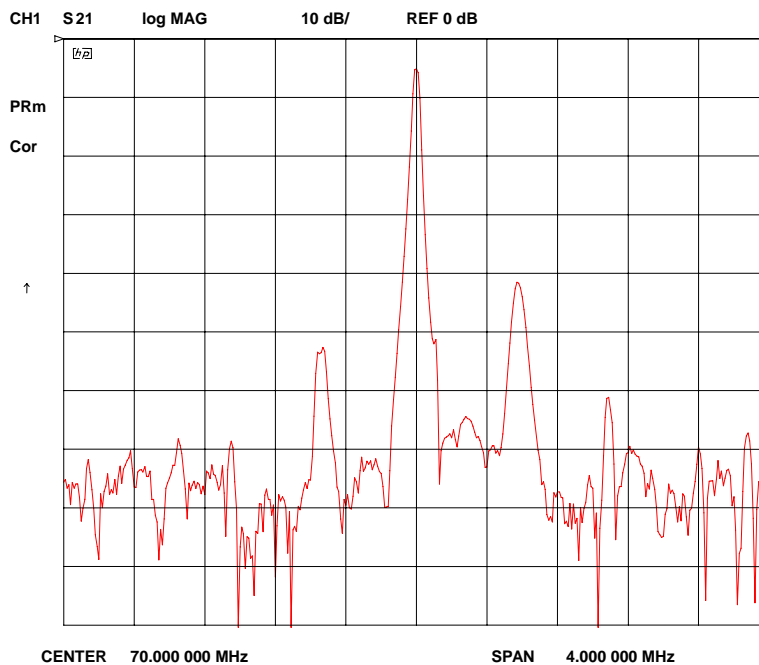
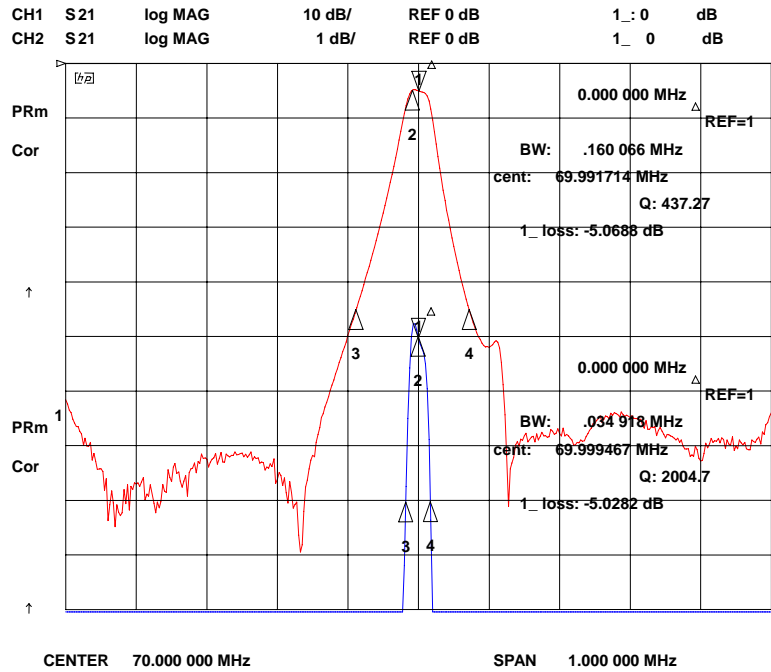
Center Frequency Range ( MHz) at room temp.	Marking
69.955~69.964	ITF 02D073A 205101B
69.965~69.974	ITF 02D073B 205101B
69.975~69.984	ITF 02D073C 205101B
69.985~69.994	ITF 02D073D 205101B
69.995~70.004	ITF 02D073E 205101B
70.005~70.014	ITF 02D073F 205101B
70.015~70.024	ITF 02D073G 205101B
70.025~70.034	ITF 02D073H 205101B
70.035~70.044	ITF 02D073I 205101B


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# SAW Bandpass Filter 205101B



## Typical Performance (at +25°C)



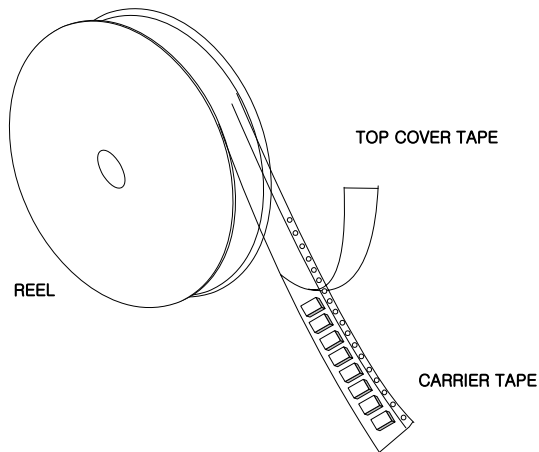
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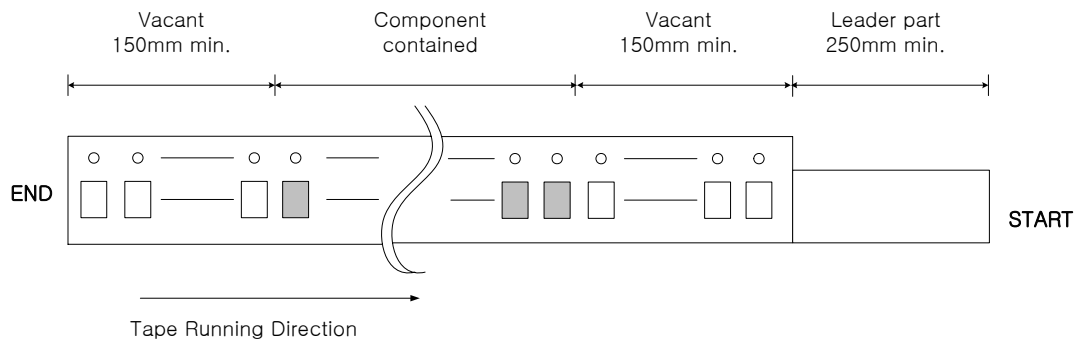
## Packing Specification

1. Reeling Quantity : 2000 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

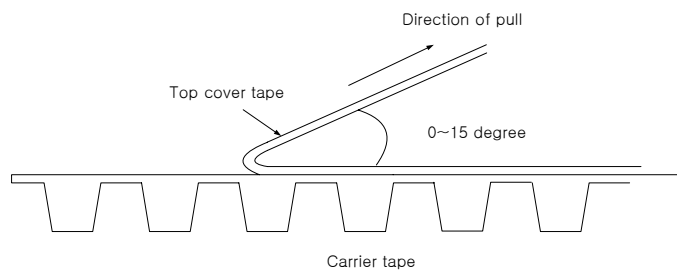


2. Tensile strength of carrier tape

4.4N/mm width

3. Top cover tape adhesion

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

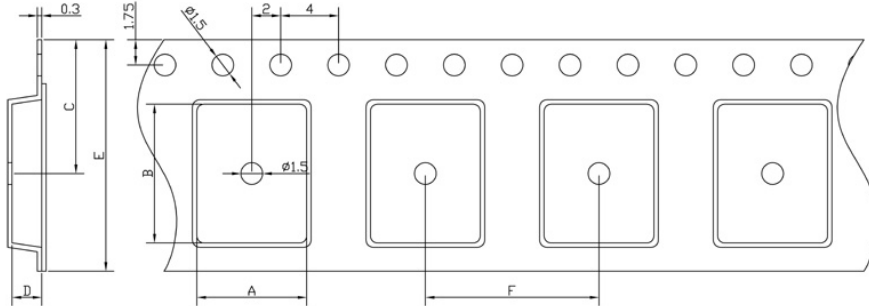


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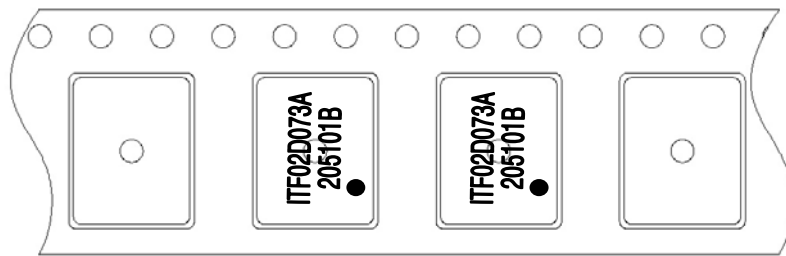


## Carrier Tape Dimensions [unit : mm]



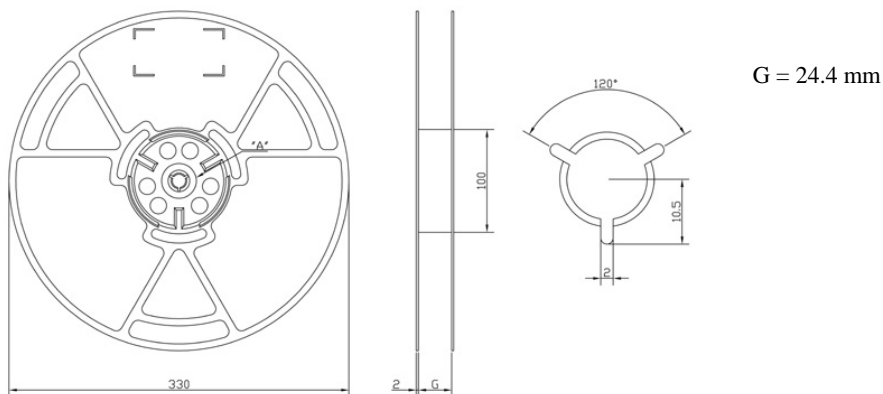
A	7.00 ± 0.1
B	13.80 ± 0.1
C	13.25 ± 0.1
D	1.95 ± 0.1
E	24.00 ± 0.1
F	12.00 ± 0.1

## Part Direction



→  
Tape Running Direction

## Reel Dimensions [unit : mm]



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