

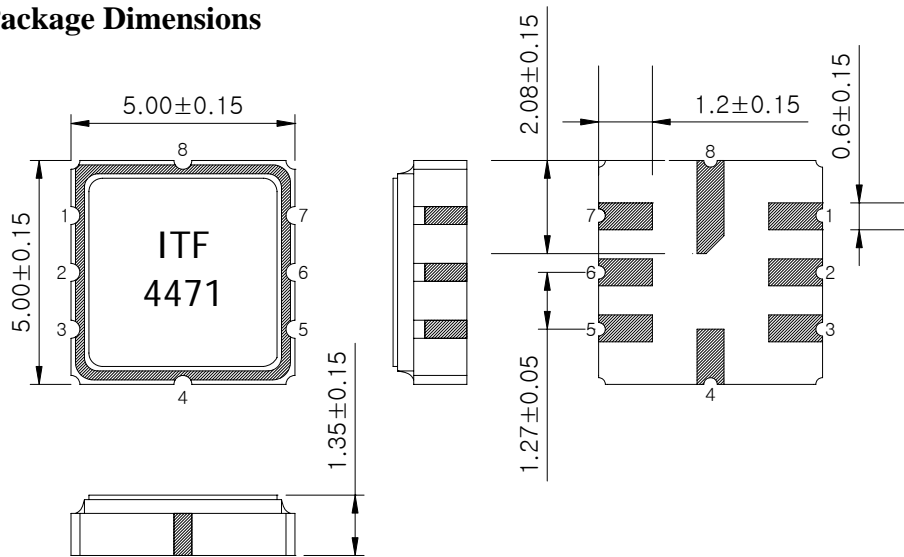
SAW Bandpass Filter F4471



Features

- Narrow bandpass filter
- High attenuation
- Usable bandwidth 25 kHz
- 50Ω single-ended operation
- Ceramic Surface Mounted Device (SMD) Package

Package Dimensions



Dimensions shown are nominal in millimeters

Body : Al_2O_3 Ceramic

Lid : Kovar, Ni Plated


Terminations : Au plating 0.3 ~ 1.0 μm , Over a 1.27 ~ 8.89 μm
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	$^{\circ}\text{C}$	-10	25	60
Storage Temperature Range	$^{\circ}\text{C}$	-40	-	85
Power Handling Capability	dBm	-	-	-

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.	F4471	
		Rev. Date	2004-04-16	
		Rev.	NR4001-AS02	1/7

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Specifications

$F_c = 447.725\text{MHz}$

Terminating source impedance : 50Ω and matching network

Terminating load impedance : 50Ω and matching network

		Minimum	Typical	Maximum
Center Frequency (F_c)	MHz	-	447.725	-
Insertion Loss ($F_c \pm 12.5$ kHz)	dB	-	3.8	5.5
Amplitude Ripple ($F_c \pm 12.5$ kHz)	dB	-	-	-
Absolute Group Delay at F_c	usec	-	3.5	-
Group Delay Variation ($F_c \pm 12.5$ kHz)	usec	-	0.5	-
VSWR ($F_c \pm 12.5$ kHz)		-	1.5	2.2
Attenuation				
$F_o \pm 12.5$ kHz	dB	-	3.8	5.5
$F_o \pm 750.0$ kHz ~ $F_o \pm 2.0$ MHz	dB	30	35	-
$F_o \pm 2.0$ MHz ~	dB	55	65	-
Temperature Coefficient of Frequency	ppm/ $^{\circ}\text{C}^2$	-	-0.032	-

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

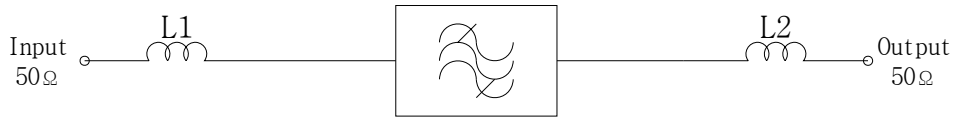
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Matching Schematic

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



$$L1 = L2 = 39\text{nH}$$

Marking Configuration


ITF¹⁾

4471²⁾

1) Manufacturer name

2) Marking Number

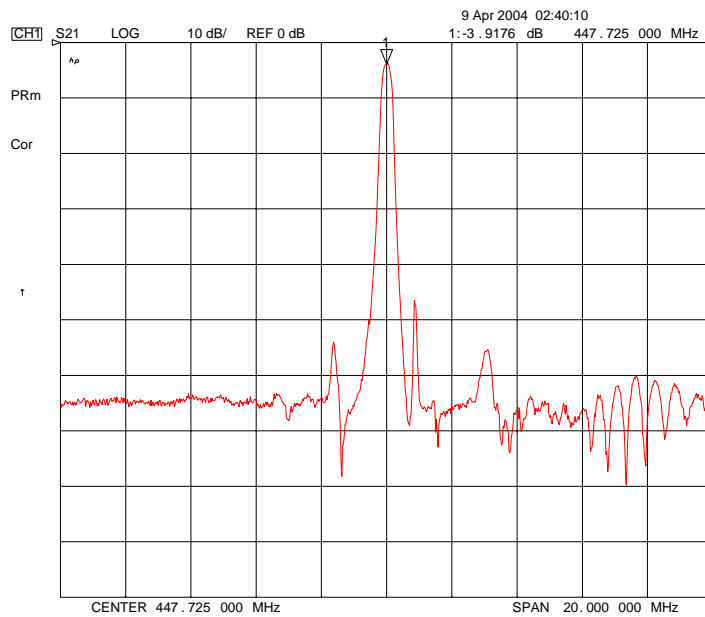
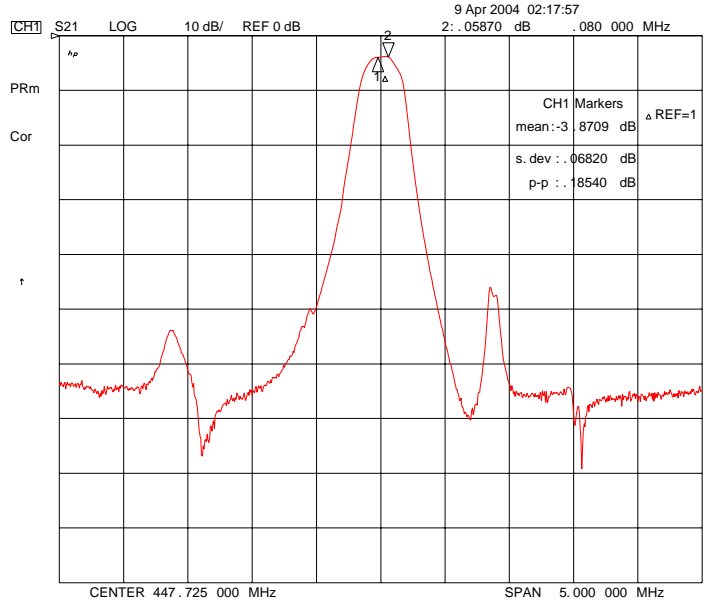
* Ink or Laser Marking available

 Integrated Technology Future	ITF Co., Ltd. 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809	Part No.	F4471	
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Typical Performance (at 25°C)

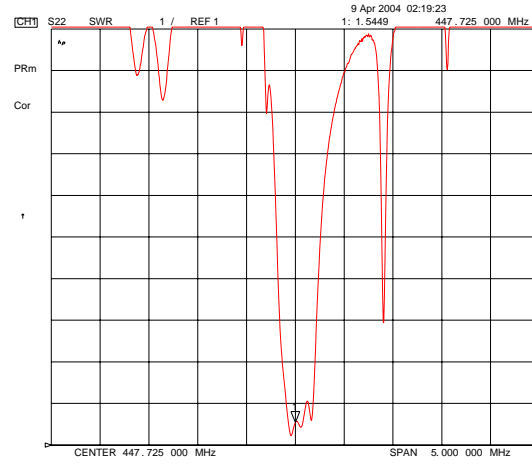
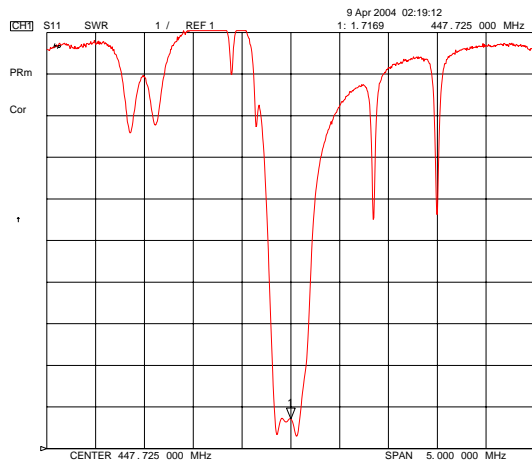


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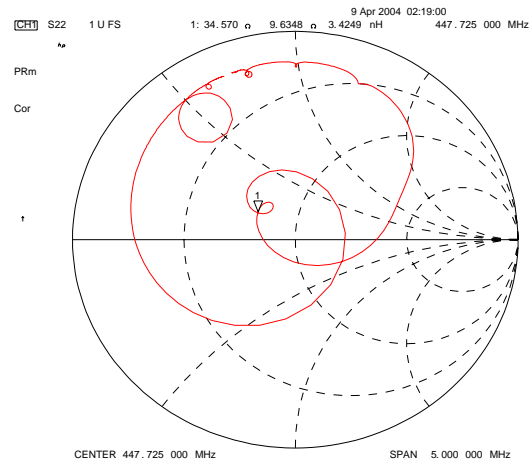
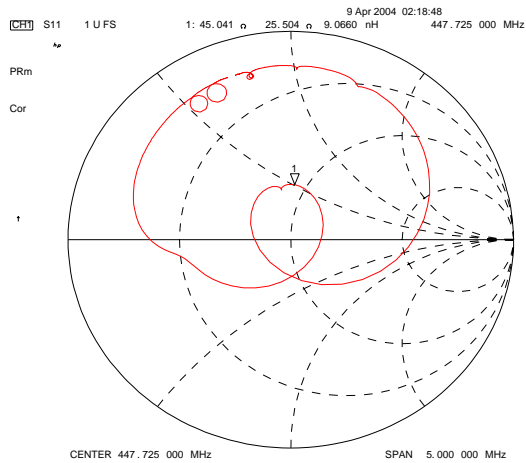
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Input / Output VSWR Charts



Input / Output Smith Charts



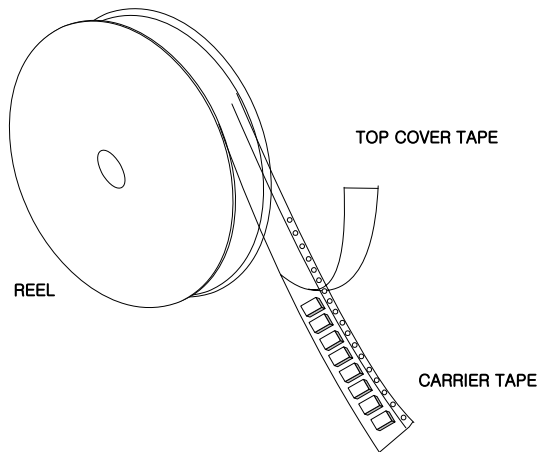
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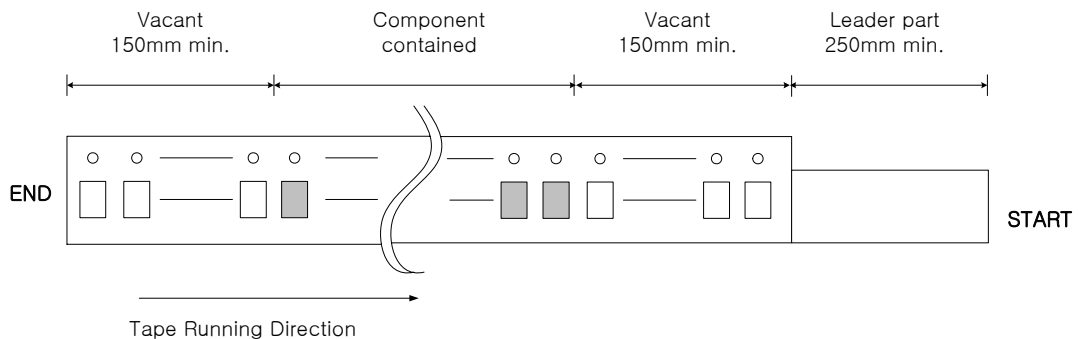
Packing Specification

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

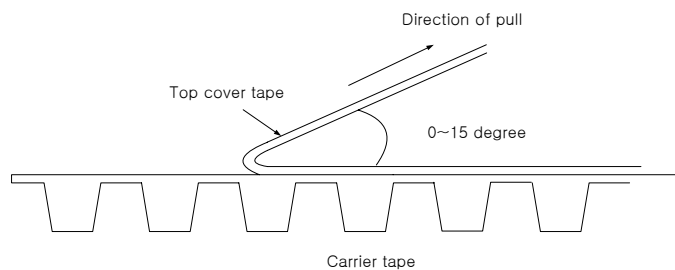


2. Tensile strength of carrier tape

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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