

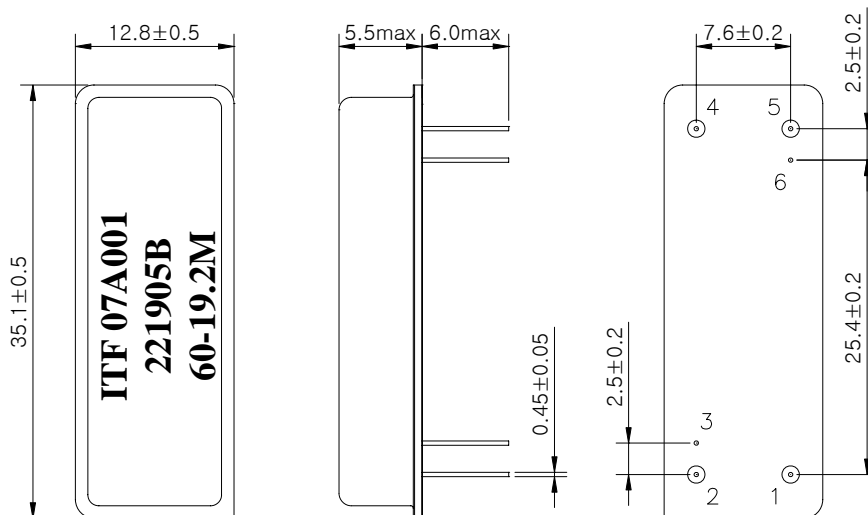
SAW Bandpass Filter 221905B



1. Features

- IF Bandpass Filter
- High Attenuation
- Single-Ended Operation
- DIP Package
- Maximum Storage Temperature Range : -40°C ~ 85°C
- Electrostatics Sensitive Device (ESD)

2. Package Dimension



Package : D3512

Dimensions shown are nominal in millimeters
 Base : Fe(SPCC), Au plating over Ni plated
 Cap : Cu & Cr Alloy, Ni Plated
 Termination : Kovar, Au Plated

Pin Configuration	
1	Input
5	Output
2, 4	Ground
3, 6	Case ground

	ITF Co., Ltd. 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809	Part No.	221905B	
		Rev. Date	2007-9-29	
		Rev.	NM7049-CS01	1/5

SAW Bandpass Filter 221905B



3. Specifications

Fo = 60.0 MHz

Terminating source impedance : 50Ω and matching network

Terminating load impedance : 50Ω and matching network

		Minimum	Typical	Maximum
Center Frequency	MHz	-	60.0	-
Insertion Loss	dB	-	23.3	25.0
1dB Bandwidth	MHz	19.1	19.19	-
3dB Bandwidth	MHz	-	19.56	-
50dB Bandwidth	MHz	-	21.39	21.5
Amplitude Ripple (fo±9.22 MHz)	dB	-	0.6	1.0
Group Delay Variation (fo±9.22 MHz)	nsec	-	30	80
Absolute Delay	usec	-	1.93	-
Ultimate Rejection	dB	50	55	-
Temperature Coefficient of Frequency	ppm/°C	-	-72	-

Notes :

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

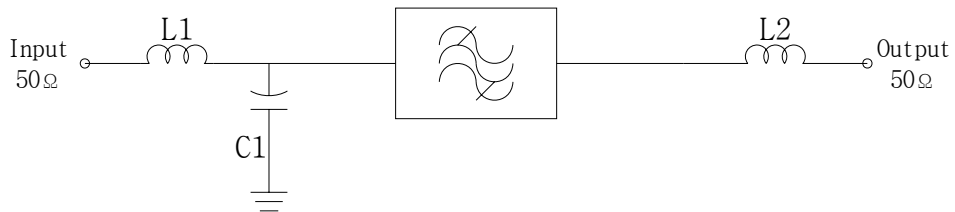
	ITF Co., Ltd. 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809	Part No.	221905B	
		Rev. Date	2007-9-29	
		Rev.	NM7049-CS01	2/5

SAW Bandpass Filter 221905B



4. Matching Schematic

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



L1=220nH, L2=220nH

C1=5.6pF

5. Marking Configuration

ITF¹⁾ 07A001²⁾

221905B³⁾

60⁴⁾ -19.2M⁵⁾


1) Manufacturer name

2) Lot Number

3) Part Number

4) Center Frequency

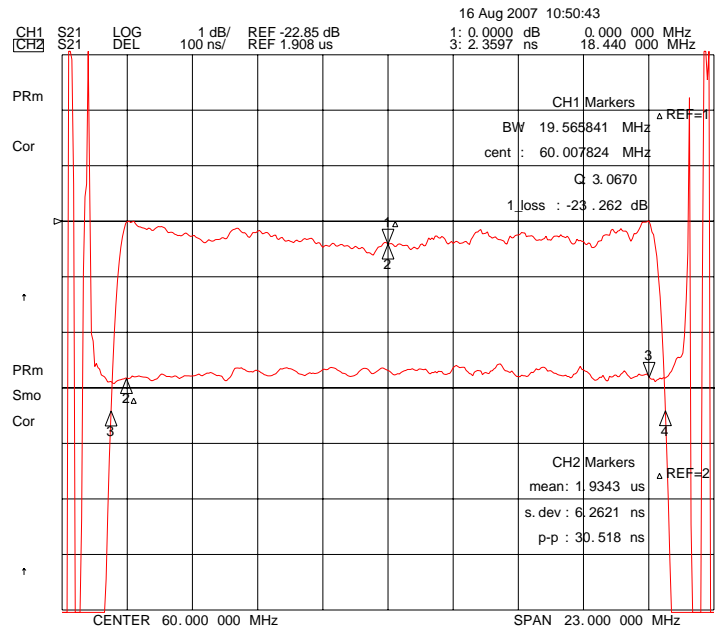
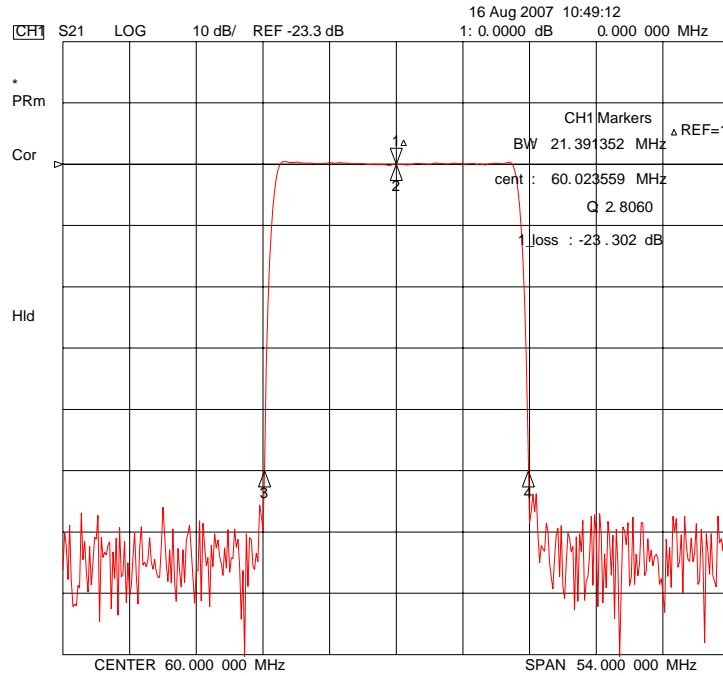
5) 1dB-Bandwidth

 Integrated Technology Future	ITF Co., Ltd. 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809	Part No.	221905B	
		Rev. Date	2007-9-29	
		Rev.	NM7049-CS01	3/5

SAW Bandpass Filter 221905B



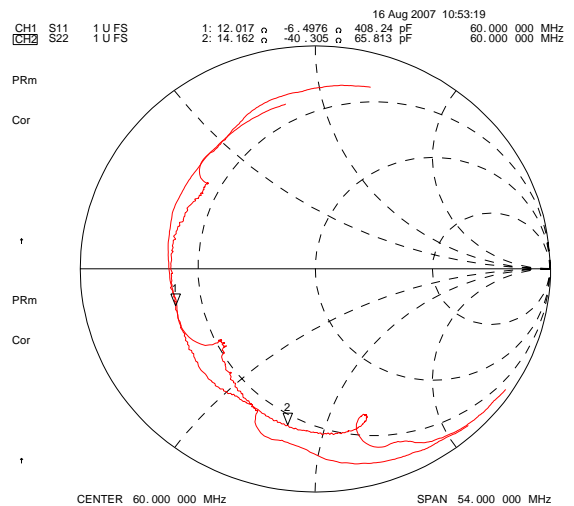
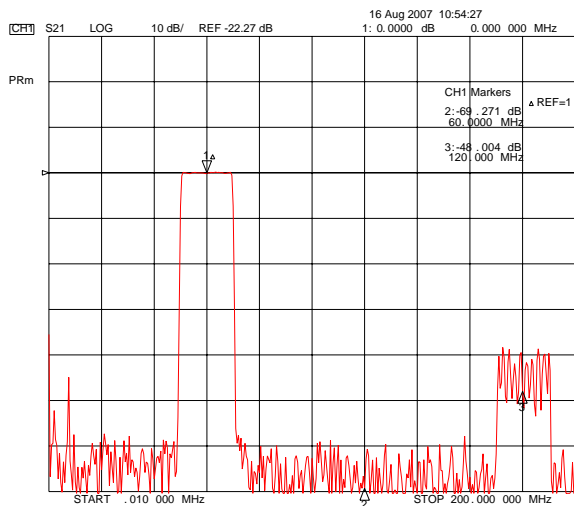
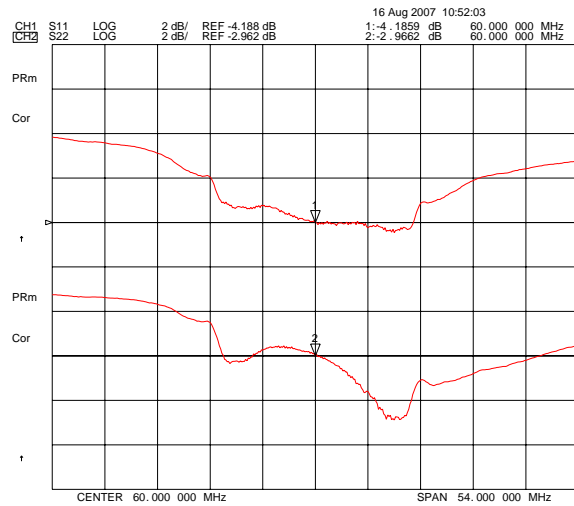
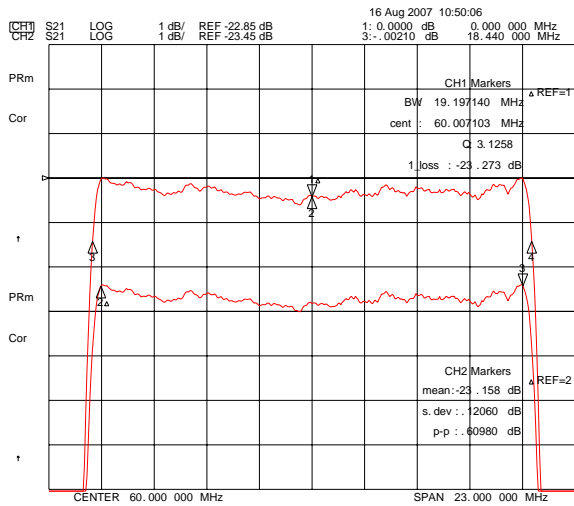
6. Typical Performance (at +25°C)



ITF Co., Ltd.
 102-901, Bucheon Technopark 364,
 Samjeong-Dong, Ojeong-Gu, Bucheon-City,
 Gyeonggi-Do, Korea 421-809

Part No.	221905B	
Rev. Date	2007-9-29	
Rev.	NM7049-CS01	4/5

SAW Bandpass Filter 221905B



ITF Co., Ltd.
 102-901, Bucheon Technopark 364,
 Samjeong-Dong, Ojeong-Gu, Bucheon-City,
 Gyeonggi-Do, Korea 421-809

Part No.	221905B	
Rev. Date	2007-9-29	
Rev.	NM7049-CS01	5/5