

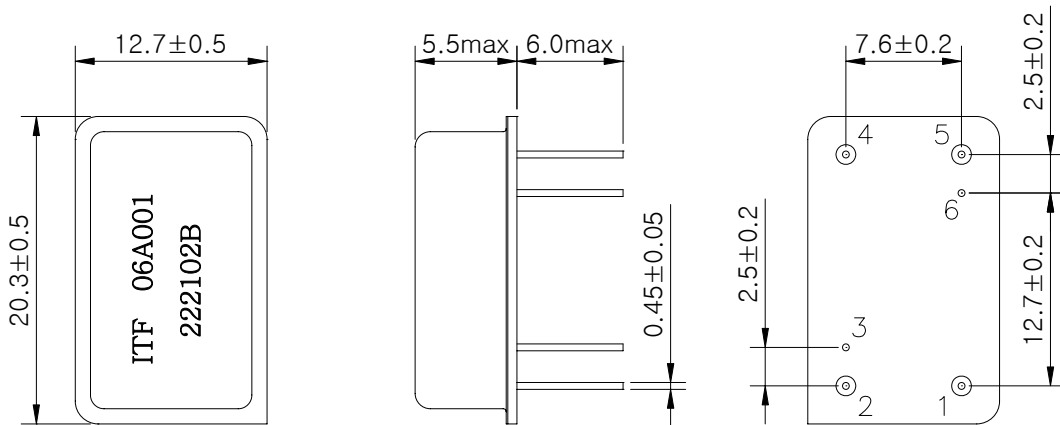
# Bandpass Filter 222102B



## 1. Features

- IF bandpass filter
- Low-Loss Filter
- Single-ended operation
- DIP Package
- Maximum Storage Temperature Range : -40°C ~ 85°C
- Electrostatics Sensitive Device (ESD)

## 2. Package Dimension



**Package : D2012**


Pin Configuration	
1	Input
5	Output
Other	ground

Dimensions shown are nominal in millimeters

Base : Fe(SPCC), Au plating over Ni plated

Cap : Cu and Cr Alloy, Ni plated

Terminations : Kover, Au plated

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		Rev. Date	2006-09-05	
		Rev.	NJ6011-CS02	1/5

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## 3. Specifications


F<sub>o</sub> =60.0 MHz

Terminating source impedance : 50Ω and matching network

Terminating load impedance : 50Ω and matching network

Operating temperature range : -10℃ ~ +70℃		Minimum	Typical	Maximum
Center Frequency	MHz	-	60.0	-
Insertion Loss	dB	-	14.5	17.0
1dB Bandwidth	MHz	20.0	20.7	-
3dB Bandwidth	MHz		21.5	-
40dB Bandwidth	MHz	-	24.8	25.0
Amplitude Ripple (F <sub>o</sub> +/- 9.75MHz)	dB	-	0.6	1.0
Group Delay Variation (F <sub>o</sub> +/- 9.75 MHz)	nsec	-	40	80
Absolute Delay	usec	-	1.29	-
Ultimate Rejection	dB	40	45	
Temperature Coefficient of Frequency	ppm/°C	-	-86	-

Room temperature : + 25℃		Minimum	Typical	Maximum
Center Frequency	MHz	-	60.0	-
Insertion Loss	dB	-	14.5	16.5
Amplitude Ripple (F <sub>o</sub> +/- 10.0 MHz)	dB	-	0.6	1.0
Group Delay Variation (F <sub>o</sub> +/- 10.0 MHz)	nsec	-	40	80

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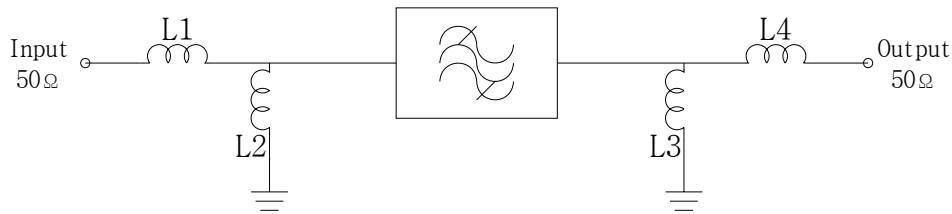


## Notes :

- 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
- 3) Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
- 4) All attenuation measurements are measured relative to insertion loss

## 4. Matching Schematic

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




$$L1 = L4 = 120\text{nH}$$
$$L2 = 180\text{ nH}, \quad L3 = 220\text{nH}$$

## 5. Marking Configuration

ITF<sup>1)</sup>06A001<sup>2)</sup>  
222102B<sup>3)</sup>

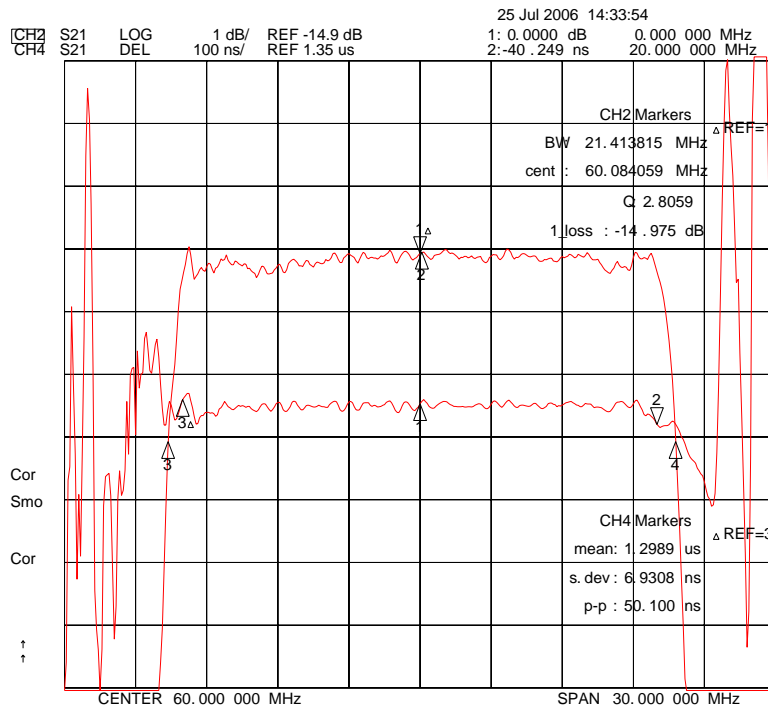
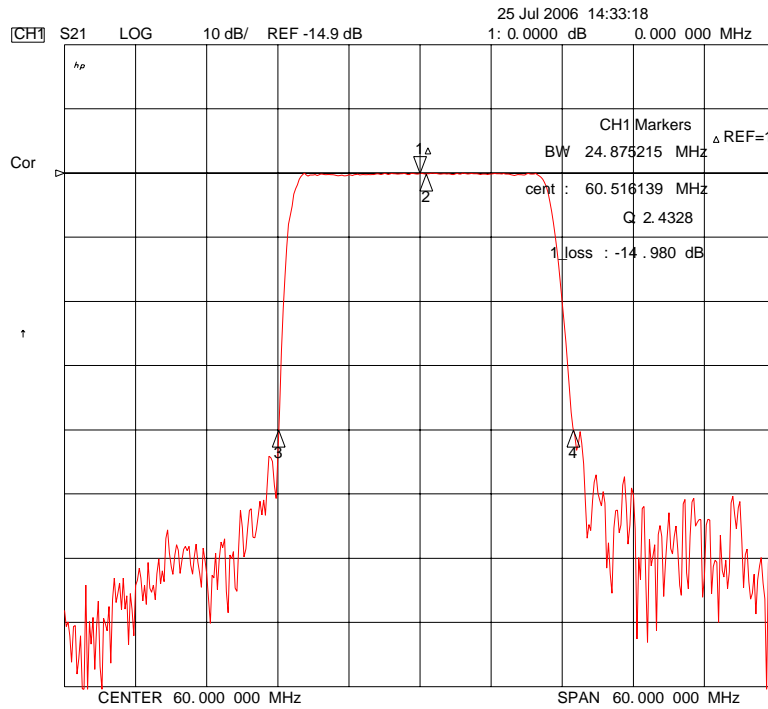
- 1) Manufacturer name
- 2) Lot Number
- 3) Part Number

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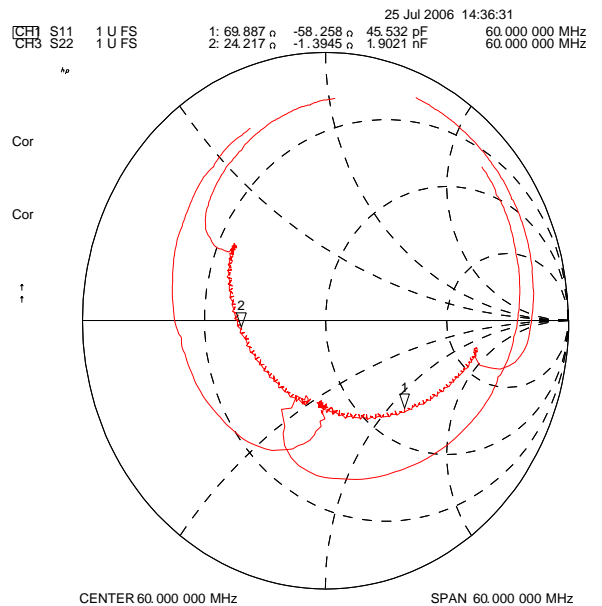
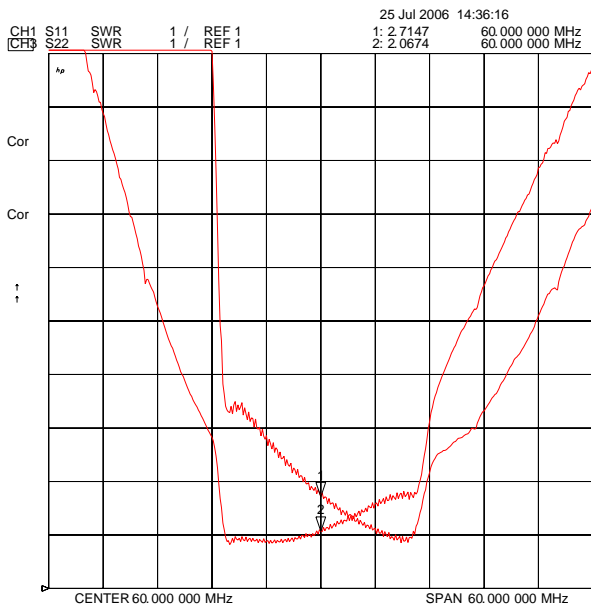
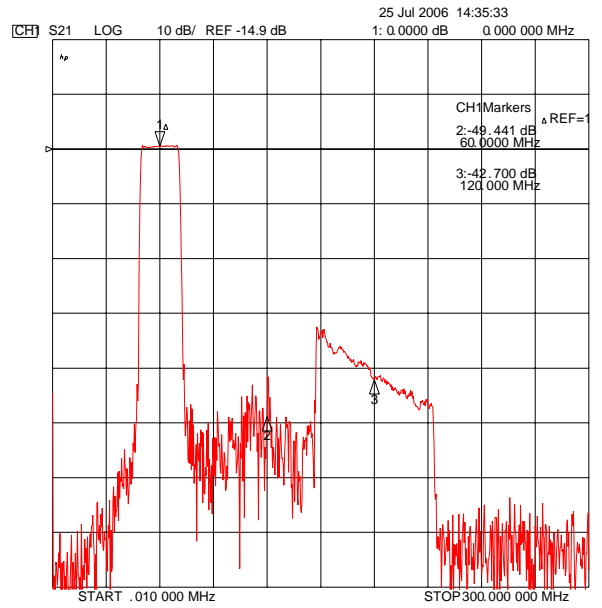
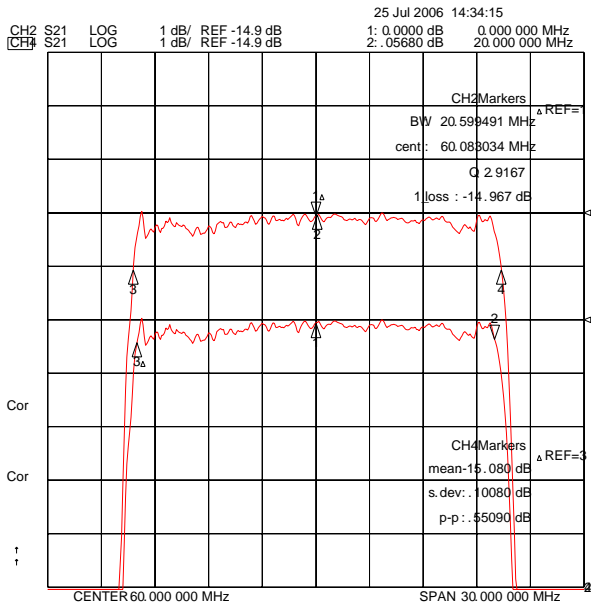


## 6. Typical Performance ( at +25°C )



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