

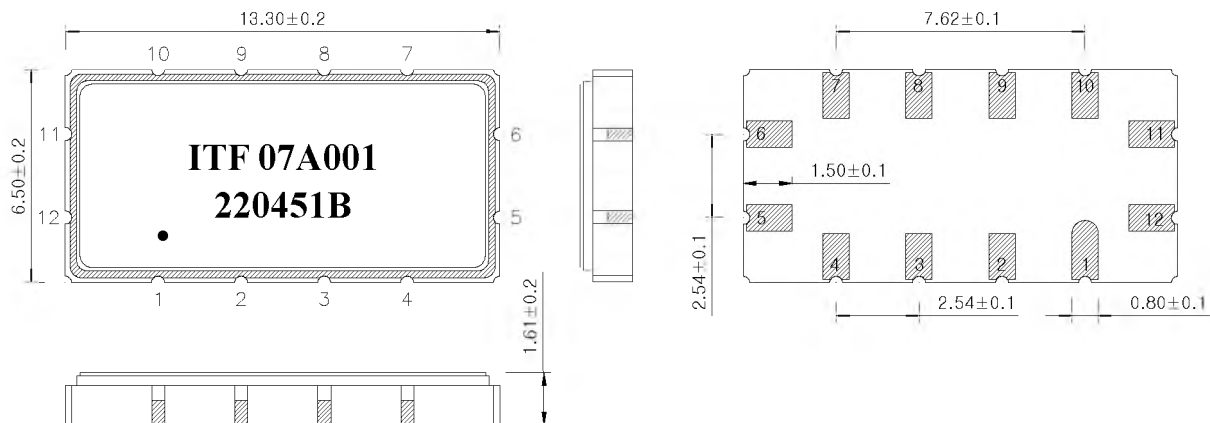
Bandpass Filter 220451B



1. Features

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

2. Package Dimension



Package : S1365

Dimensions shown are nominal in millimeters

Body : Al₂O₃

Lid : Kovar, Ni Plated

Termination : Au plating 0.3 ~ 1.0um, over a 1.27 ~ 8.89um Ni Plating

Pin Configuration	
11	Input
5	Output
6, 12	Ground
Other	Case ground

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3. Specifications

$F_0 = 62.5 \text{ MHz}$

Terminating source impedance : 50Ω and matching network

Terminating load impedance : 50Ω and matching network

Operating temperature range : $-30^\circ\text{C} \sim +50^\circ\text{C}$		Minimum	Typical	Maximum
Center Frequency (F_c)	MHz	-	62.5	-
Insertion Loss	dB	-	14.0	17.0
1dB Bandwidth	MHz	4.0	4.23	-
3dB Bandwidth	MHz	-	4.7	-
5dB Bandwidth	MHz	-	4.98	5.2
40dB Bandwidth	MHz	-	6.6	7.0
Amplitude Ripple ($F_0 \pm 1.92 \text{ MHz}$)	dB	-	0.4	1.0
Group Delay Variation ($F_0 \pm 1.92 \text{ MHz}$)	nsec	-	60	100
Absolute Delay	usec	-	1.68	-
Temperature Coefficient of Frequency (TCF)	ppm/ $^\circ\text{C}$	-	- 18	-

Room temperature : $+25^\circ\text{C}$		Minimum	Typical	Maximum
Center Frequency	MHz	-	62.5	-
Insertion Loss	dB	-	14.0	16.5
Amplitude Ripple ($F_0 \pm 2.0 \text{ MHz}$)	dB	-	0.65	1.0
Group Delay Variation ($F_0 \pm 2.0 \text{ MHz}$)	nsec	-	60	100
Relative Attenuation $F_c \pm 4.0 \text{ MHz}$	dB	50	55	-

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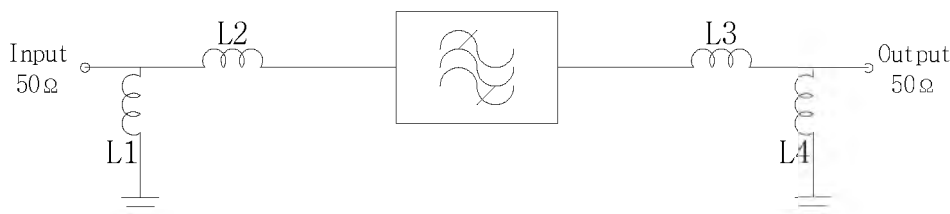


Notes :

- 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)



$$L1 = 47 \text{ nH}, \quad L4 = 33 \text{ nH}$$

$$L2 = L3 = 27 \text{ nH}$$

5. Marking Configuration

ITF¹⁾ 07A001²⁾

220451B³⁾

●⁴⁾

1) Manufacturer name

2) Lot Number

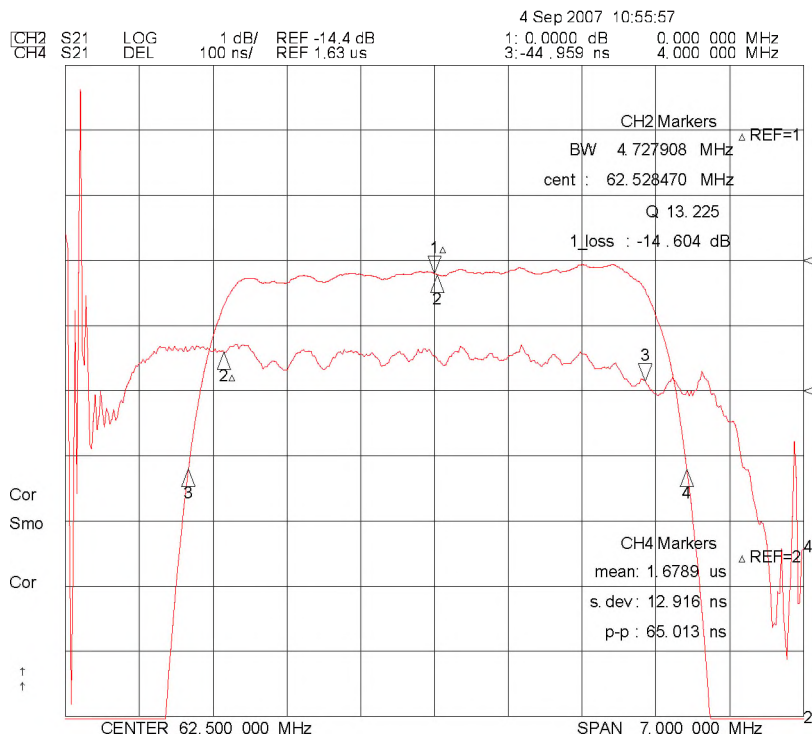
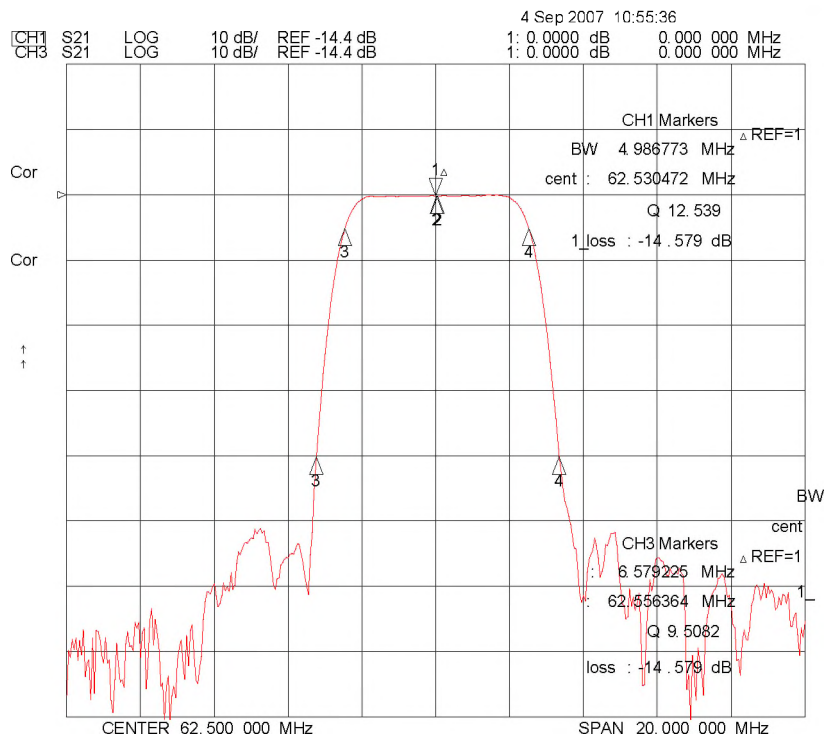
3) Part Number

4) Pad Number 1 Index

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6. Typical Performance (at +25°C)



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