

# Thin-Film RF/Microwave Filters

## BP1206 Thin Film Band Pass Filter

### General Information



#### ITF TECHNOLOGY

The BP1206 Band Pass Filter is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

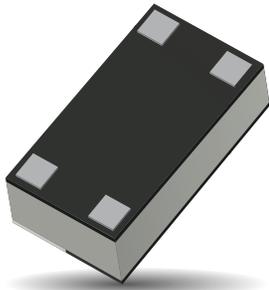
The ITF Filter is offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

#### FEATURES

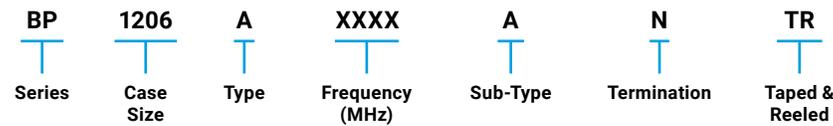
- Small size: 1206
- Band: Up to 6100 MHz
- Characteristic impedance: 50Ω
- Operating / Storage temp: -40°C – 85°C
- Power Handling: 8W (continuous)
- Low profile
- Rugged construction
- Taped and reeled
- RoHS compliant

#### APPLICATIONS

- Base station
- 5G / 6G LTE
- Antenna matching
- Mobile communications
- Satellite TV receivers
- Vehicle location systems
- Wireless LAN's
- Radar



#### HOW TO ORDER



EVB P/N : 544-7083

#### FINAL QUALITY INSPECTION

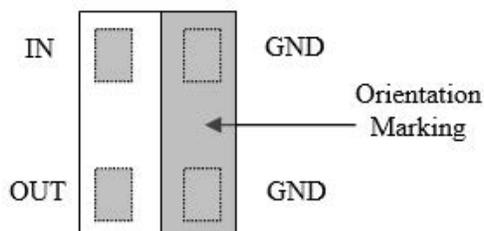
Finished parts are 100% tested for electrical parameters and visual/ mechanical characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance : 125°C, IR, 4 hours

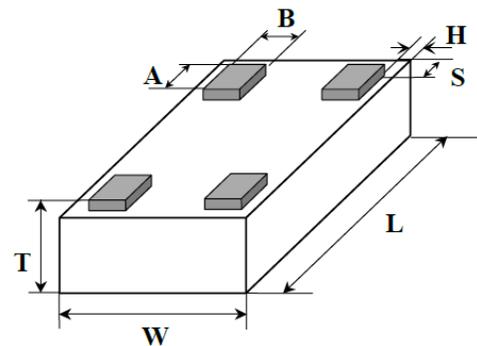
#### TERMINATION

Nickel/ Lead-free Solder coating (Sn100) compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

#### TERMINALS (TOP VIEW)



#### DIMENSIONS (BOTTOM VIEW)

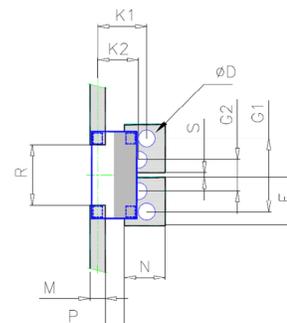


#### mm (inches)

<b>L</b>	3.10±0.10 (0.122±0.004)
<b>W</b>	1.60±0.10 (0.063±0.004)
<b>T</b>	0.60±0.30 (0.024±0.012)

<b>A</b>	0.39±0.10 0.015±0.004
<b>B</b>	0.33±0.10 0.013±0.004
<b>H, S</b>	0.05±0.05 (0.002±0.002)

#### RECOMMENDED PAD LAYOUT (MM)



M	0.54 ±0.025
R	2.16 ±0.04
S	0.16 ±0.04
K1	1.74 ±0.05
K2	1.45 ±0.05
G1	2.61 ±0.05
G2	1.12 ±0.05
P	0.68 ±0.04
N	1.45 ±0.05
F	1.72 ±0.05
D	∅0.6 ±0.05

# Thin-Film RF/Microwave Filters

## BP1206 Thin Film Band Pass Filter

### Electrical Performance Table



#### ELECTRICAL PERFORMANCE

Part Number	Passband				Stopband Rejection					
	Frequency		I.L dB (max)	R.L dB (Typ)	Low Band		High Band			
					Band MHz	Rejection dB	Band MHz	Rejection dB	Band MHz	Rejection dB
	BP1206A1500ANTR	1250	1750	-1.5	-15	550	-40	2500-6000	-40	---
BP1206A2250ANTR	1850	2650	-1.5	-15	1000	-40	3500-5000	-35	5000-8000	-40
BP1206A3300ANTR	2600	4000	-1.4	-15	1500	-30	5200-12000	-35	---	---
BP1206A3400ANTR	2800	4000	-1.2	-15	1400	-30	6000-12000	-33	---	---
BP1206A4600ANTR	3700	5500	-1.1	-15	2000	-35	8000-14000	-30	14000-16000	-35
BP1206A4650ANTR	3600	5700	-1.4	-15	2000	-37	8000-14000	-32	14000-16000	-35
BP1206A5300ANTR	4500	6100	-1.5	-15	2000	-45	8500-12000	-30	12500-18000	-25

# Thin-Film RF/Microwave Filters

## BP1206 Thin Film Band Pass Filter

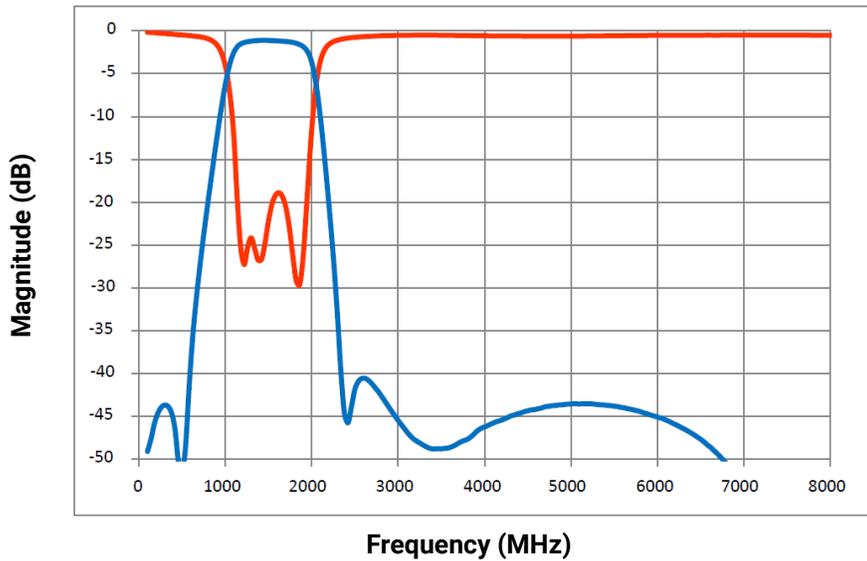
### BP1206A1500ANTR



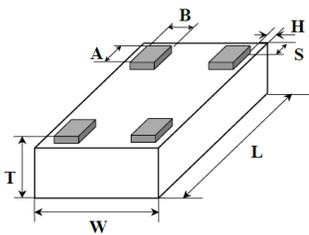
#### ELECTRICAL CHARACTERISTICS

Description	Value
Center frequency	1500 MHz
Impedance	50 ohm
I. loss 1.25 - 1.75 GHz	-1.5 dB
In-band return loss	-15 dB
Rejection @ 550 MHz	-40 dB
Rejection @ 2.5 - 6 GHz	-40 dB
Power handling (CW)	8 Watt
Operating temperature range	-40/+85 °C
Package	1206

#### TYPICAL ELECTRICAL PERFORMANCE



#### DIMENSIONS (BOTTOM VIEW)

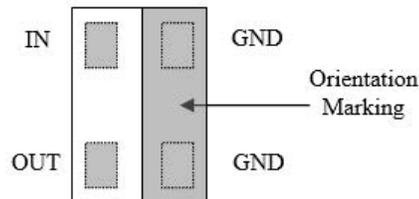


mm (inches)

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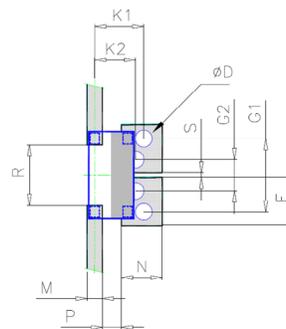
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#### TERMINALS (TOP VIEW)



EVB P/N : 544-7083

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\* The recommended distance to the ground plane is 0.254mm (0.01")

\*\* PCB: Taconic Orcer RF-35P

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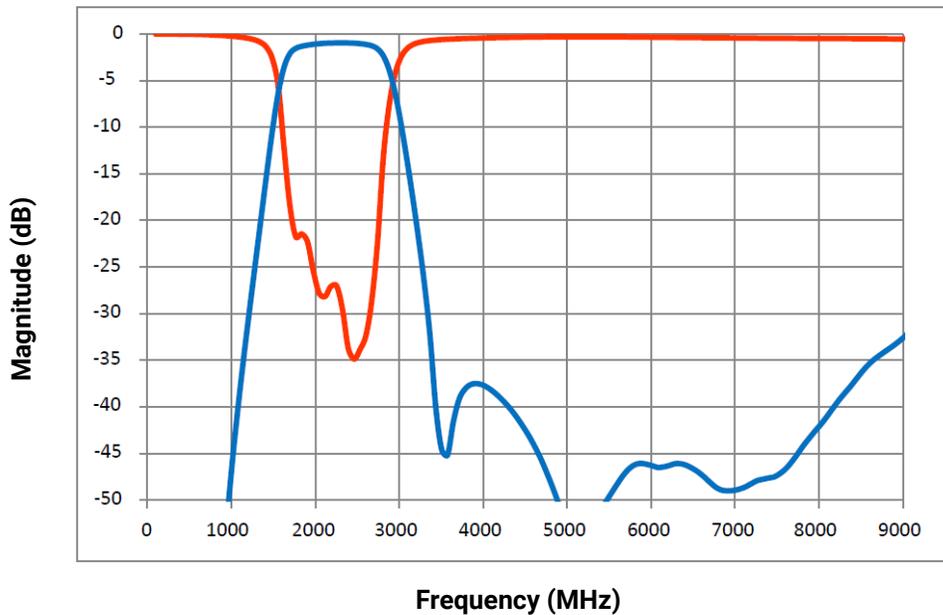
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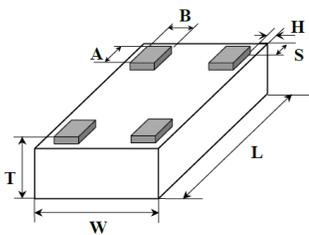
#### ELECTRICAL CHARACTERISTICS

Description	Value
Center frequency	2250 MHz
Impedance	50 ohm
I. loss 1.85 – 2.65 GHz	-1.5 dB
In-band return loss	-15 dB
Rejection @ 1000 MHz	-40 dB
Rejection @ 3.5 – 5.0 GHz	-35 dB
Rejection @ 5.0 – 8.0 GHz	-40 dB
Power handling (CW)	8 Watt
Operating temperature range	-40/+85 °C
Package	1206

#### TYPICAL ELECTRICAL PERFORMANCE



#### DIMENSIONS (BOTTOM VIEW)

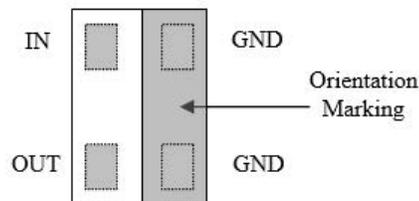


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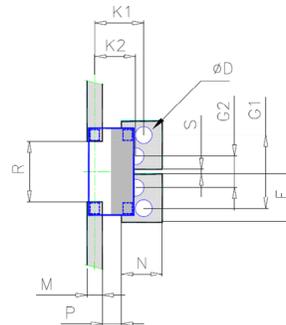
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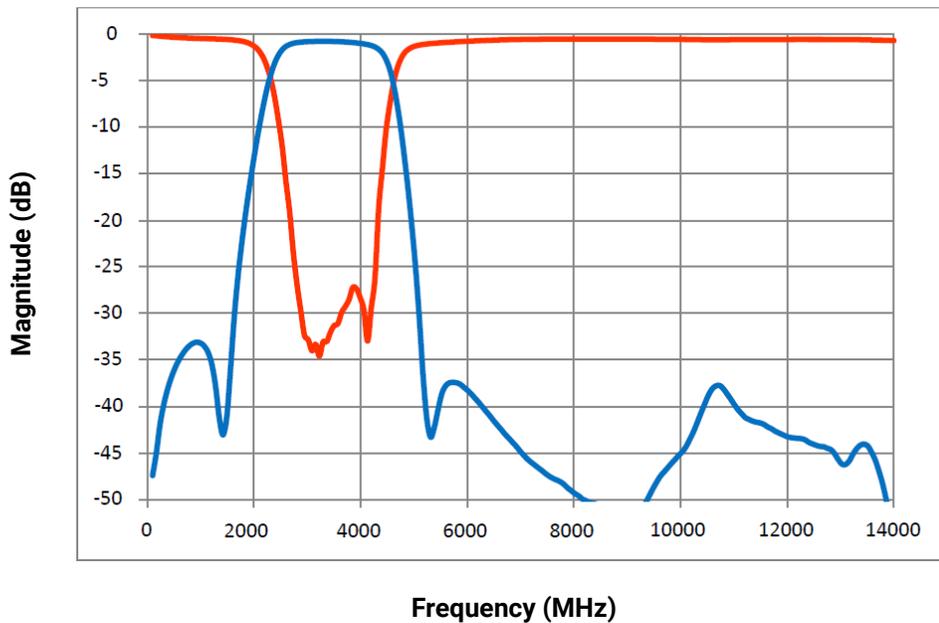
### BP1206A3300ANTR



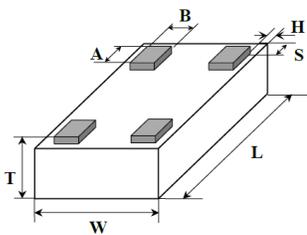
#### ELECTRICAL CHARACTERISTICS

Description	Value
Center frequency	3300 MHz
Impedance	50 ohm
I. loss 2.6 – 4.0 GHz	-1.4 dB
In-band return loss	-15 dB
Rejection @ 1500 MHz	-30 dB
Rejection @ 5.2 - 12 GHz	-35 dB
Power handling (CW)	8 Watt
Operating temperature range	-40/+85 °C
Package	1206

#### TYPICAL ELECTRICAL PERFORMANCE



#### DIMENSIONS (BOTTOM VIEW)

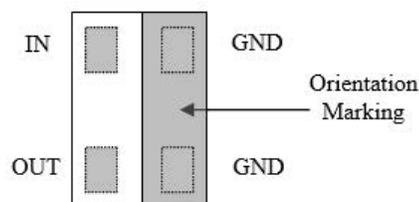


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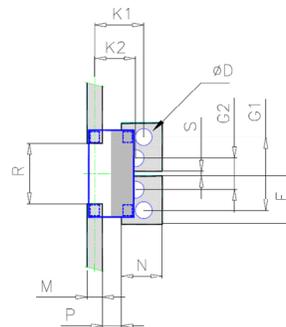
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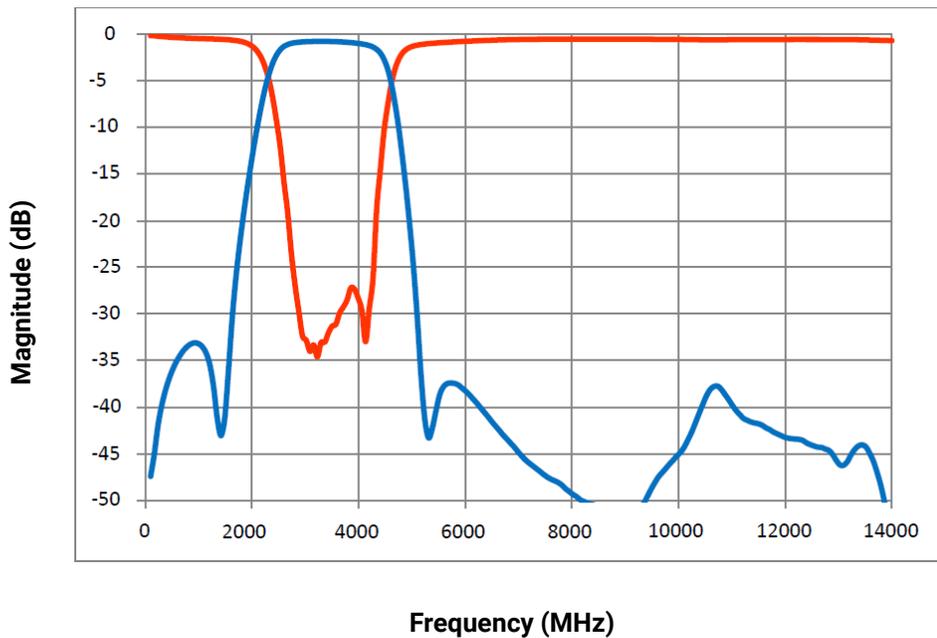
### BP1206A3400ANTR



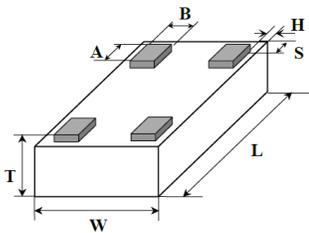
#### ELECTRICAL CHARACTERISTICS

Description	Value
Center frequency	3400 MHz
Impedance	50 ohm
I. loss 2.8 – 4.0 GHz	-1.2 dB
In-band return loss	-15 dB
Rejection @ 1400 MHz	-30 dB
Rejection @ 6.0 - 12 GHz	-33 dB
Power handling (CW)	8 Watt
Operating temperature range	-40/+85 °C
Package	1206

#### TYPICAL ELECTRICAL PERFORMANCE



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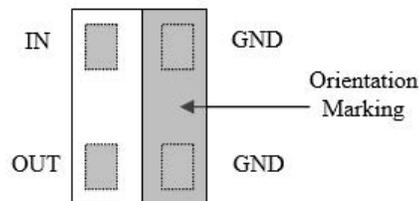


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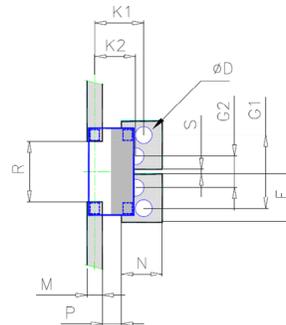
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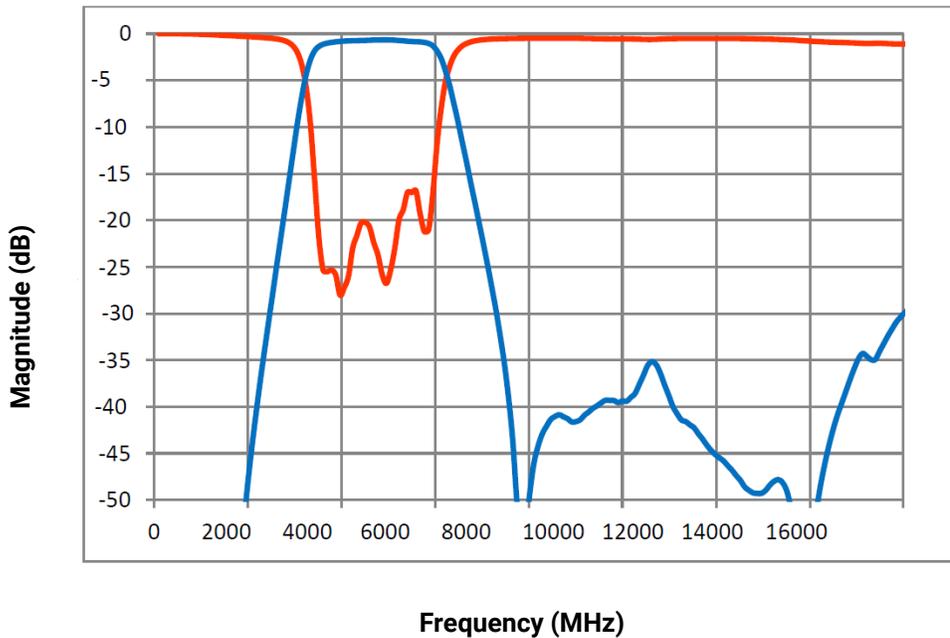
### BP1206A4600ANTR



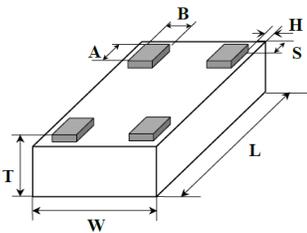
#### ELECTRICAL CHARACTERISTICS

Description	Value
Center frequency	4600 MHz
Impedance	50 ohm
I. loss 3.7 - 5.5 GHz	-1.1 dB
In-band return loss	-15 dB
Rejection @ 2000 MHz	-35 dB
Rejection @ 8.0 - 14 GHz	-30 dB
Rejection @ 14 - 16 GHz	-35 dB
Power handling (CW)	8 Watt
Operating temperature range	-40/+85 °C
Package	1206

#### TYPICAL ELECTRICAL PERFORMANCE



#### DIMENSIONS (BOTTOM VIEW)

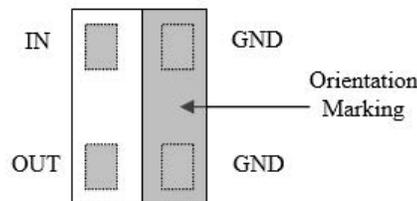


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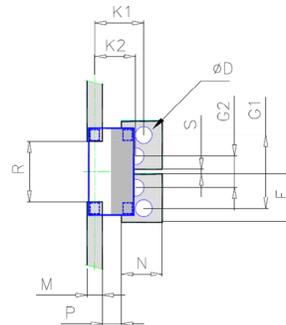
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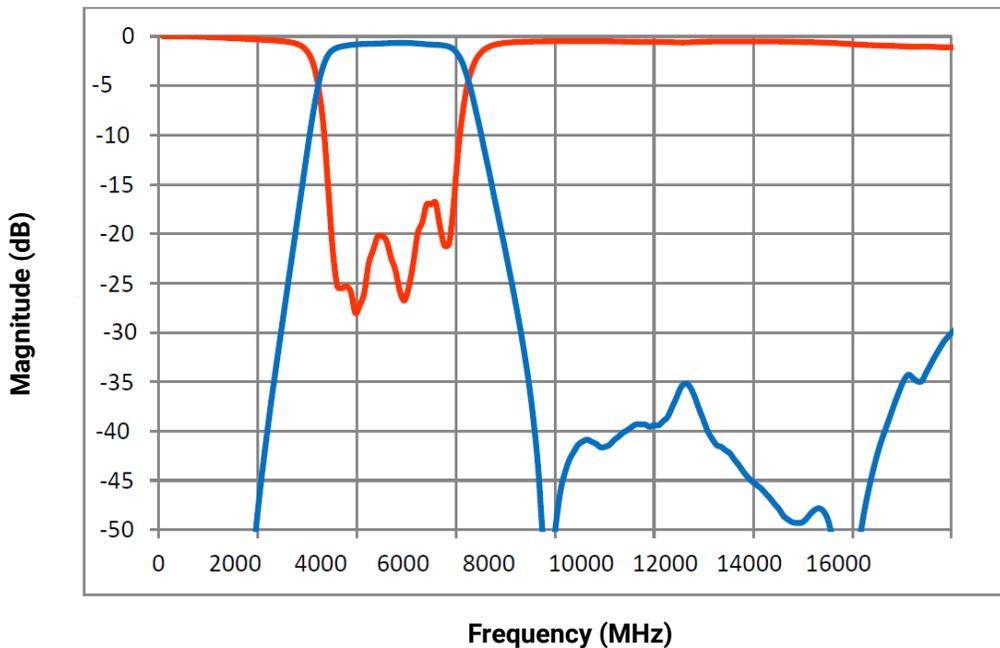
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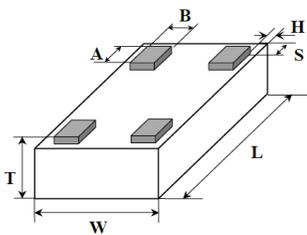
#### ELECTRICAL CHARACTERISTICS

Description	Value
Center frequency	4650 MHz
Impedance	50 ohm
I. loss 3.6 – 5.7 GHz	-1.4 dB
In-band return loss	-15 dB
Rejection @ 2000 MHz	-37 dB
Rejection @ 8.0 - 14 GHz	-32 dB
Rejection @ 14 - 16 GHz	-35 dB
Power handling (CW)	8 Watt
Operating temperature range	-40/+85 °C
Package	1206

#### TYPICAL ELECTRICAL PERFORMANCE



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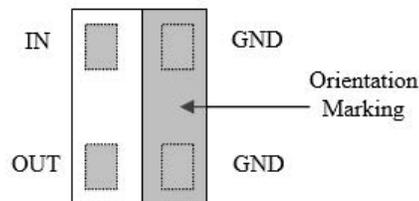


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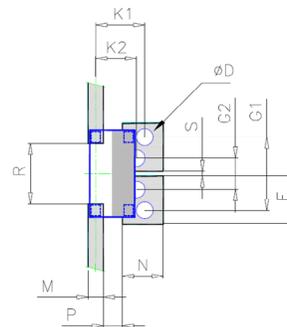
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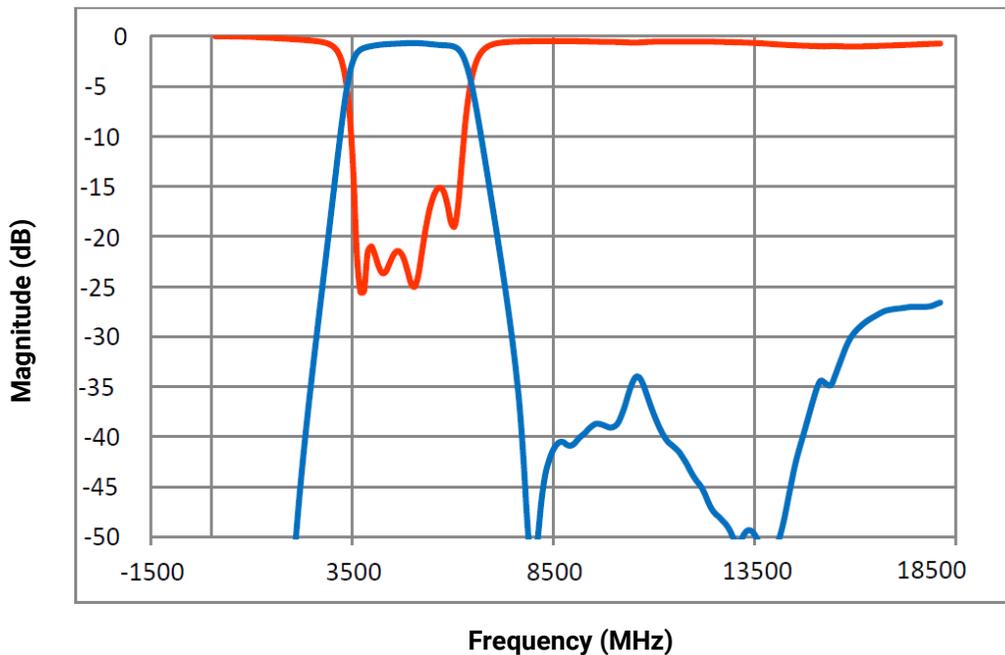
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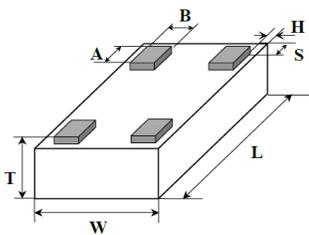
#### ELECTRICAL CHARACTERISTICS

Description	Value
Center frequency	5300 MHz
Impedance	50 ohm
I. loss 4.5 – 6.1 GHz	-1.5 dB
In-band return loss	-15 dB
Rejection @ 2000 MHz	-45 dB
Rejection @ 8.5 - 12 GHz	-30 dB
Rejection @ 12.5 - 18 GHz	-25 dB
Power handling (CW)	8 Watt
Operating temperature range	-40/+85 °C
Package	1206

#### TYPICAL ELECTRICAL PERFORMANCE



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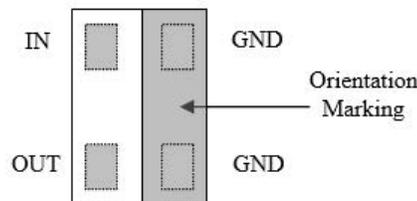


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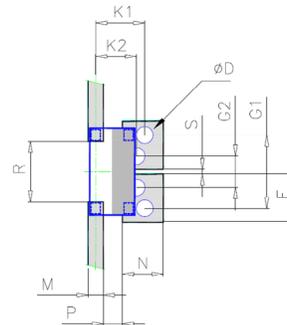
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