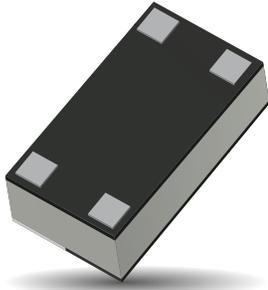


# Thin-Film RF/Microwave Filters

## BP2816 8W Band Pass Filter

### General Information



#### ITF TECHNOLOGY

The ITF LGA 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: 7x4x1mm (LxWxT)
- Band: 240 - 1260 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

- VHF \ UHF applications
- Mobile communications
- MRI application
- Radar
- Vehicle location systems
- Wireless LAN's

#### HOW TO ORDER



#### FINAL QUALITY INSPECTION

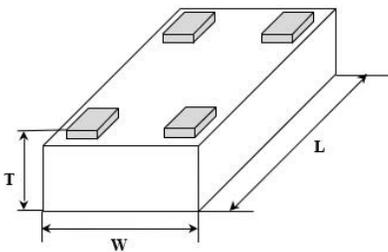
Finished parts are 100% tested for electrical parameters and visual/ mechanical characteristics. Each production lot is evaluated on a sample basis for:

- 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.

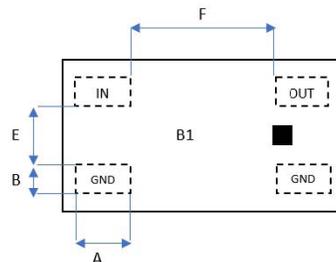
#### DIMENSIONS (BOTTOM VIEW)



mm (inches)

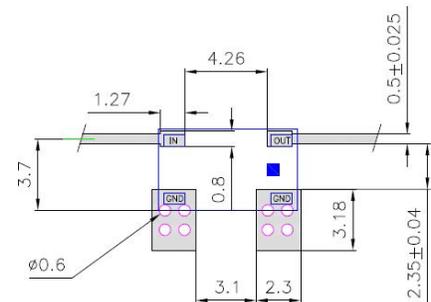
<b>L</b>	7.2 ± 0.3
<b>W</b>	4.2 ± 0.2
<b>T</b>	1.2 max
<b>A</b>	1.1 ± 0.1

#### TERMINALS (TOP VIEW)



<b>B</b>	0.6 ± 0.1
<b>E</b>	2.4 ± 0.1
<b>F</b>	4.43 ± 0.1

#### RECOMMENDED PAD LAYOUT (MM)



\* The recommended distance to the PCB Ground Plane is 0.254 mm (0.010")

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

# Thin-Film RF/Microwave Filters

## BP2816 8W 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
	BP2816A0280SNTR	240	320	-1.5	-15	140	-35	480 - 640	-35	640 - 1000
BP2816A0300SNTR	270	300	-1.5	-15	140	-35	600 - 1000	-35	1000 - 1600	-38
BP2816A0312SNTR	225	400	1.3	-15	100	-40	450 - 660	-20	675 - 990	-37
BP2816A0350SNTR	280	420	-1.5	-15	160	-35	600 - 1000	-35	1000 - 2500	-45
BP2816A0480SNTR	370	590	-1.3	-15	200	-40	800 - 1500	-38	1501 - 3000	-45
BP2816A0660SNTR	520	800	-1.4	-12	330	-40	1100 - 1680	-35	1690 - 3500	-37
BP2816A0768SNTR	668	868	-2.5	-15	500	-30	1100 - 1400	-37	---	---
BP2816A1010SNTR	760	1260	-1.3	-15	450	-33	1600 - 2000	-35	2000 - 4500	-40

# Thin-Film RF/Microwave Filters

## BP2816 8W Band Pass Filter

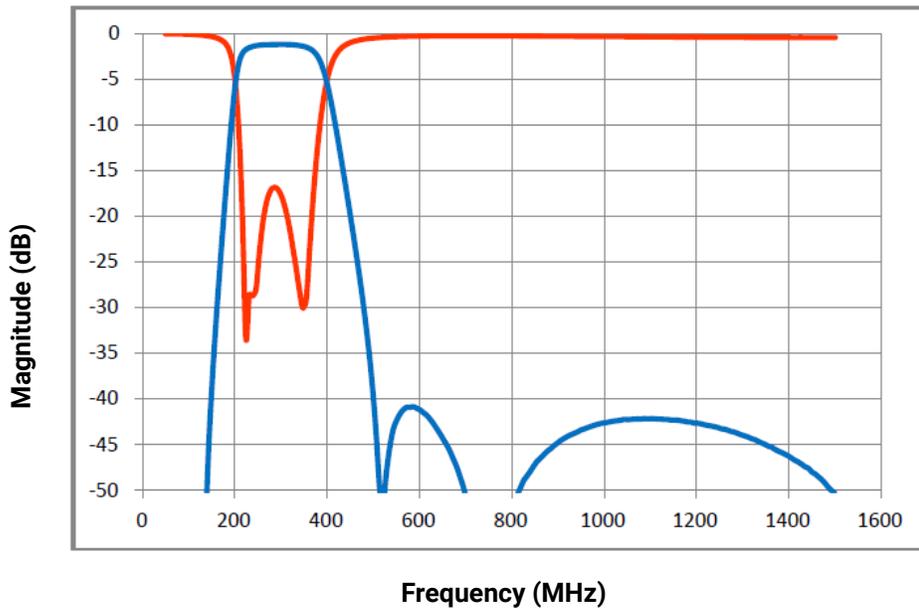
### BP2816A0280SNTR



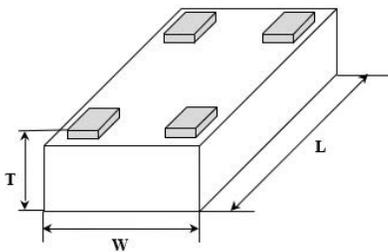
#### ELECTRICAL CHARACTERISTICS

Description	Value
Center frequency	280 MHz
Impedance	50 ohm
I. loss 240 - 320 MHz	-1.5 dB
In-band return loss	-15 dB
Rejection @ 140 MHz	-35 dB
Rejection @ 480 - 640 MHz	-35 dB
Rejection @ 640 - 1000 MHz	-40 dB
Power handling (CW)	8 Watt
Operating temperature range	-40/+85 °C
Package	2816

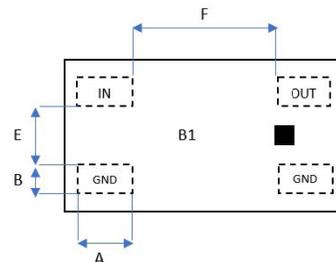
#### TYPICAL ELECTRICAL PERFORMANCE



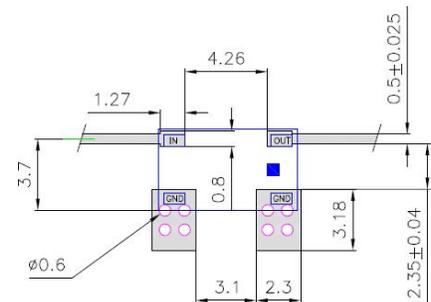
#### DIMENSIONS (BOTTOM VIEW)



#### TERMINALS (TOP VIEW)



#### RECOMMENDED PAD LAYOUT (MM)



#### mm (inches)

L	7.2 ± 0.3
W	4.2 ± 0.2
T	1.2 max
A	1.1 ± 0.1

B	0.6 ± 0.1
E	2.4 ± 0.1
F	4.43 ± 0.1

\* The recommended distance to the PCB Ground Plane is 0.254 mm (0.010")  
 \*\* PCB: Taconic Orcer RF-35P

#### EVB P/N: JIG544-7084

# Thin-Film RF/Microwave Filters

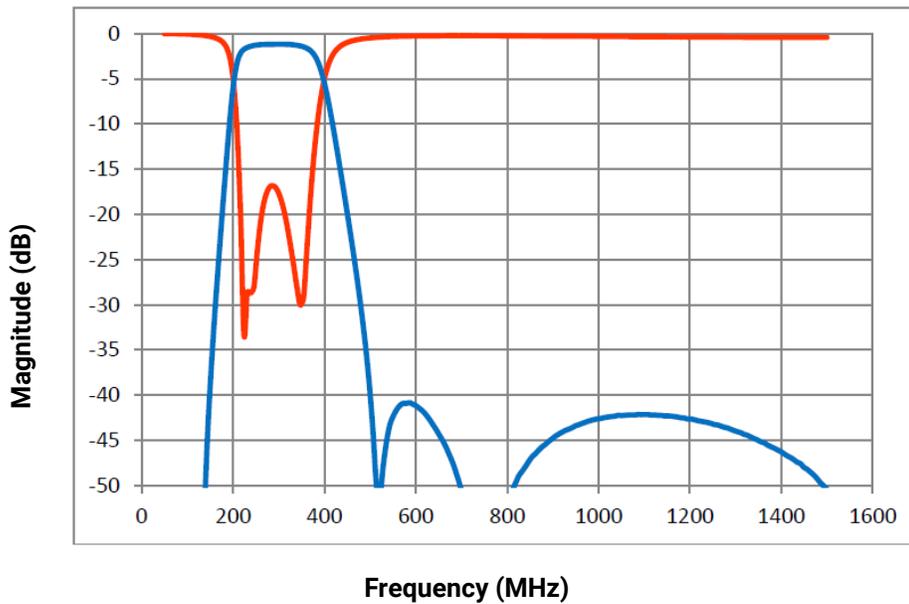
## BP2816 8W Band Pass Filter

### BP2816A0300SNTR

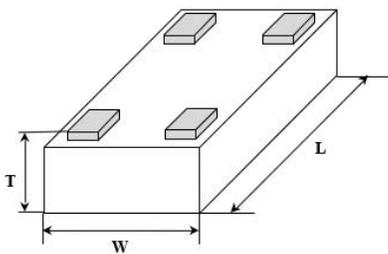
#### ELECTRICAL CHARACTERISTICS

Description	Value
Center frequency	300 MHz
Impedance	50 ohm
I. loss 270 - 330 MHz	-1.5 dB
In-band return loss	-15 dB
Rejection @ 140 MHz	-35 dB
Rejection @ 600 - 1000 MHz	-35 dB
Rejection @ 1000 - 1600 MHz	-35 dB
Power handling (CW)	8 Watt
Operating temperature range	-40/+85 °C
Package	2816

#### TYPICAL ELECTRICAL PERFORMANCE



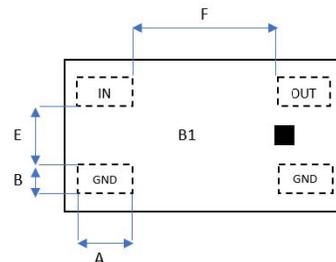
#### DIMENSIONS (BOTTOM VIEW)



#### mm (inches)

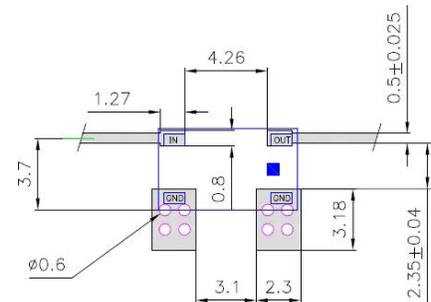
<b>L</b>	7.2 ± 0.3
<b>W</b>	4.2 ± 0.2
<b>T</b>	1.2 max
<b>A</b>	1.1 ± 0.1

#### TERMINALS (TOP VIEW)



<b>B</b>	0.6 ± 0.1
<b>E</b>	2.4 ± 0.1
<b>F</b>	4.43 ± 0.1

#### RECOMMENDED PAD LAYOUT (MM)



\* The recommended distance to the PCB Ground Plane is 0.254 mm (0.010")  
 \*\* PCB: Taconic Orcer RF-35P

#### EVB P/N: JIG544-7084

# Thin-Film RF/Microwave Filters

## BP2816 8W Band Pass Filter

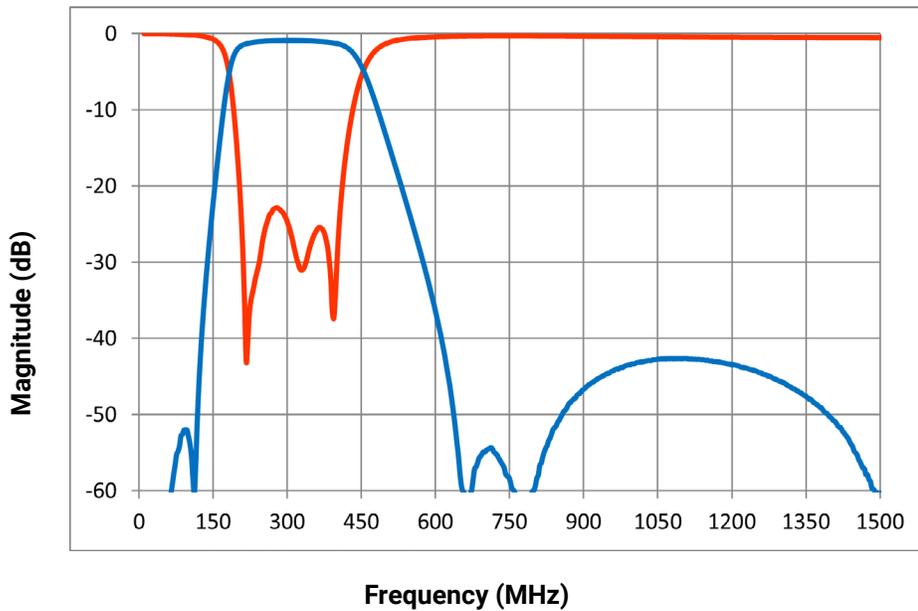
### BP2816A0312SNTR



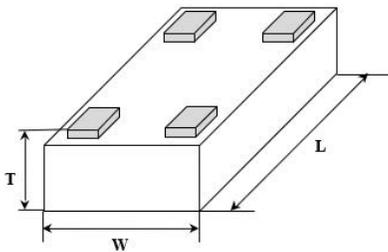
#### ELECTRICAL CHARACTERISTICS

Description	Value
Center frequency	312 MHz
Impedance	50 ohm
I. loss 270 - 330 MHz	-1.3 dB
In-band return loss	-15 dB
Rejection @ 140 MHz	-40 dB
Rejection @ 600 - 990 MHz	-50 dB
Rejection @ 990 - 1500 MHz	-40 dB
Power handling (CW)	8 Watt
Operating temperature range	-40/+85 °C
Package	2816

#### TYPICAL ELECTRICAL PERFORMANCE



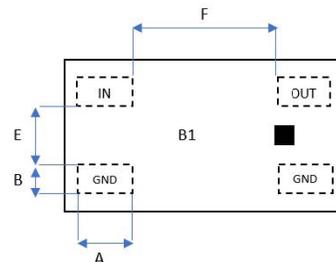
#### DIMENSIONS (BOTTOM VIEW)



##### mm (inches)

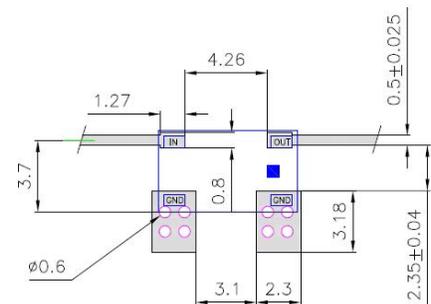
<b>L</b>	7.2 ± 0.3
<b>W</b>	4.2 ± 0.2
<b>T</b>	1.2 max
<b>A</b>	1.1 ± 0.1

#### TERMINALS (TOP VIEW)



<b>B</b>	0.6 ± 0.1
<b>E</b>	2.4 ± 0.1
<b>F</b>	4.43 ± 0.1

#### RECOMMENDED PAD LAYOUT (MM)



\* The recommended distance to the PCB Ground Plane is 0.254 mm (0.010")

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

#### EVB P/N: JIG544-7084

# Thin-Film RF/Microwave Filters

## BP2816 8W Band Pass Filter

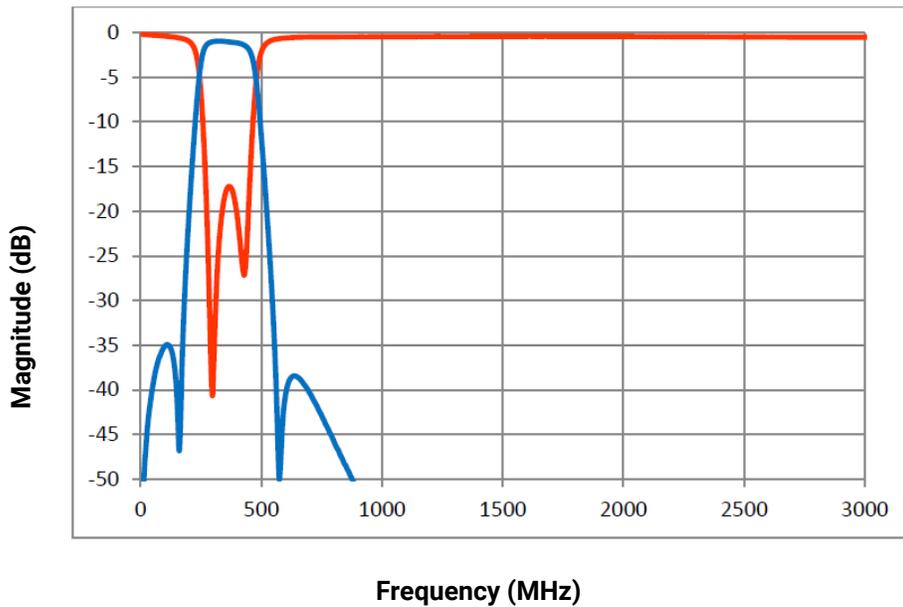
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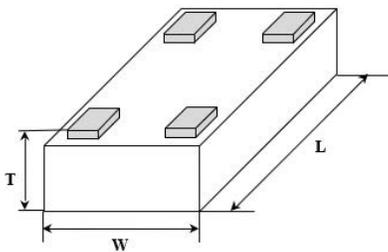
#### ELECTRICAL CHARACTERISTICS

Description	Value
Center frequency	350 MHz
Impedance	50 ohm
I. loss 280 - 420 MHz	-1.5 dB
In-band return loss	-15 dB
Rejection @ 160 MHz	-35 dB
Rejection @ 600 - 1000 MHz	-35 dB
Rejection @ 1000 - 2500MHz	-45 dB
Power handling (CW)	8 Watt
Operating temperature range	-40/+85 °C
Package	2816

#### TYPICAL ELECTRICAL PERFORMANCE



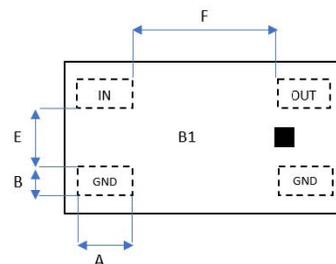
#### DIMENSIONS (BOTTOM VIEW)



#### mm (inches)

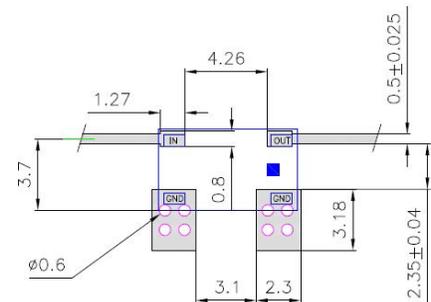
L	7.2 ± 0.3
W	4.2 ± 0.2
T	1.2 max
A	1.1 ± 0.1

#### TERMINALS (TOP VIEW)



B	0.6 ± 0.1
E	2.4 ± 0.1
F	4.43 ± 0.1

#### RECOMMENDED PAD LAYOUT (MM)



\* The recommended distance to the PCB Ground Plane is 0.254 mm (0.010")

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

#### EVB P/N: JIG544-7084



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# Thin-Film RF/Microwave Filters

## BP2816 8W Band Pass Filter

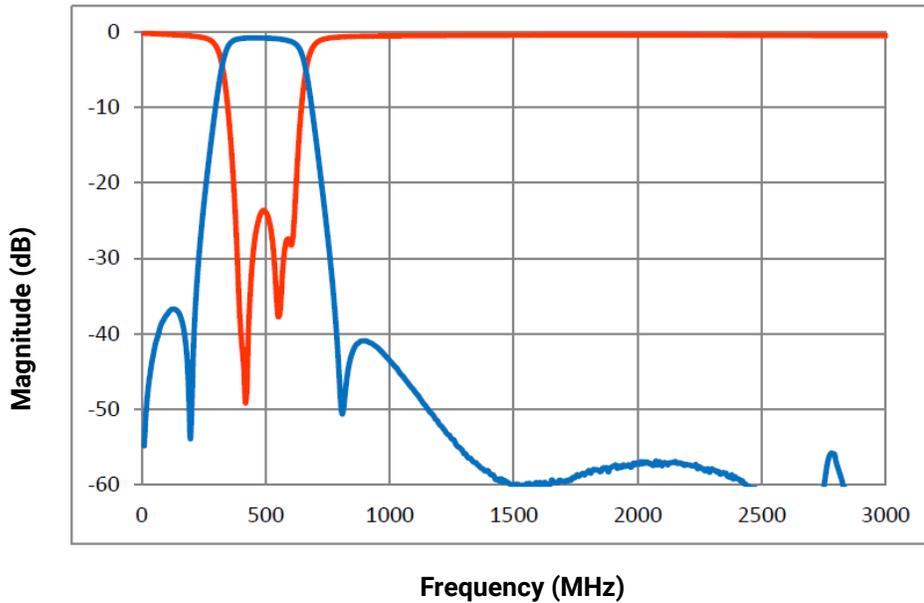
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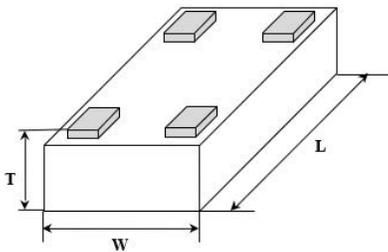
#### ELECTRICAL CHARACTERISTICS

Description	Value
Center frequency	480 MHz
Impedance	50 ohm
I. loss 370 - 590 MHz	-1.3 dB
In-band return loss	-15 dB
Rejection @ 200 MHz	-40 dB
Rejection @ 800 - 1500 MHz	-38 dB
Rejection @ 1501 - 3000 MHz	-45 dB
Power handling (CW)	8 Watt
Operating temperature range	-40/+85 °C
Package	2816

#### TYPICAL ELECTRICAL PERFORMANCE



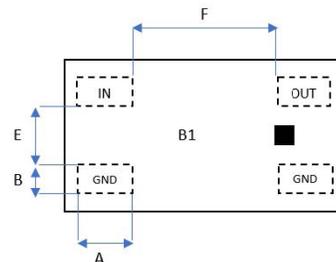
#### DIMENSIONS (BOTTOM VIEW)



mm (inches)

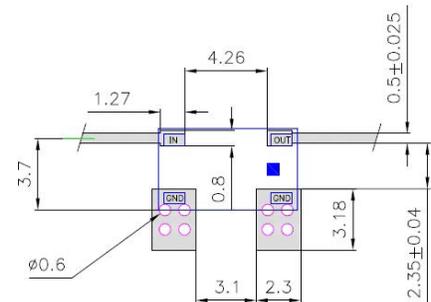
L	7.2 ± 0.3
W	4.2 ± 0.2
T	1.2 max
A	1.1 ± 0.1

#### TERMINALS (TOP VIEW)



B	0.6 ± 0.1
E	2.4 ± 0.1
F	4.43 ± 0.1

#### RECOMMENDED PAD LAYOUT (MM)



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

EVB P/N: JIG544-7084

# Thin-Film RF/Microwave Filters

## BP2816 8W Band Pass Filter

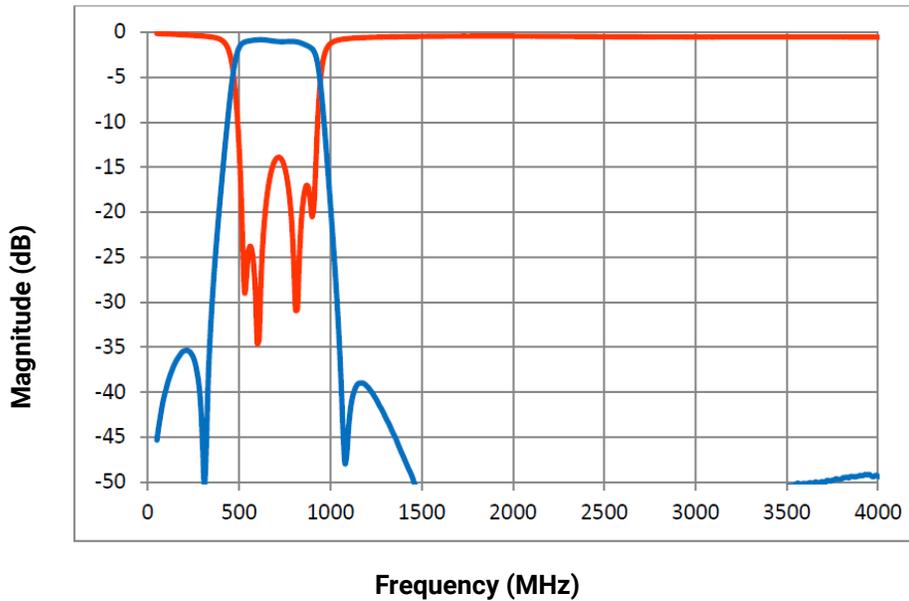
### BP2816A0660SNTR



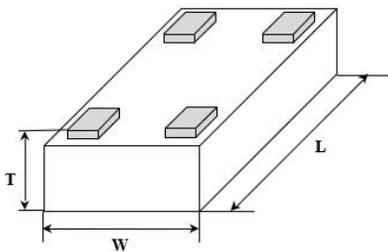
#### ELECTRICAL CHARACTERISTICS

Description	Value
Center frequency	660 MHz
Impedance	50 ohm
I. loss 520 - 800 MHz	-1.4 dB
In-band return loss	-12 dB
Rejection @ 330 MHz	-40 dB
Rejection @ 1.1 - 1.68 GHz	-35 dB
Rejection @ 1.69 - 2.52 GHz	-37 dB
Power handling (CW)	8 Watt
Operating temperature range	-40/+85 °C
Package	2816

#### TYPICAL ELECTRICAL PERFORMANCE



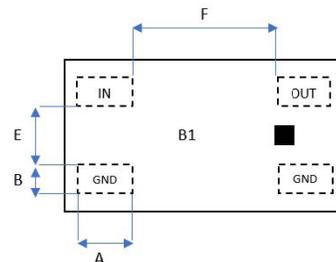
#### DIMENSIONS (BOTTOM VIEW)



#### mm (inches)

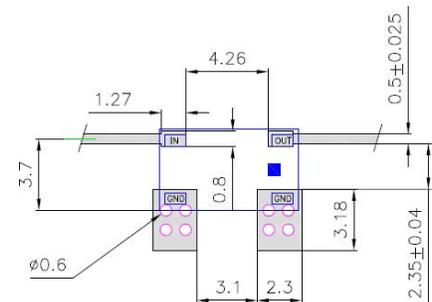
<b>L</b>	7.2 ± 0.3
<b>W</b>	4.2 ± 0.2
<b>T</b>	1.2 max
<b>A</b>	1.1 ± 0.1

#### TERMINALS (TOP VIEW)



<b>B</b>	0.6 ± 0.1
<b>E</b>	2.4 ± 0.1
<b>F</b>	4.43 ± 0.1

#### RECOMMENDED PAD LAYOUT (MM)



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

#### EVB P/N: JIG544-7084



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# Thin-Film RF/Microwave Filters

## BP2816 8W Band Pass Filter

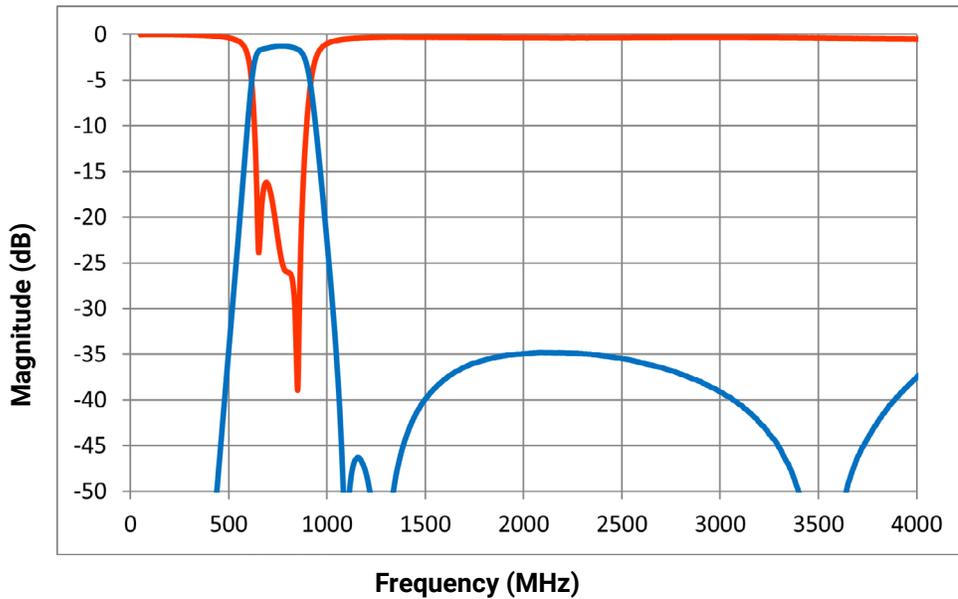
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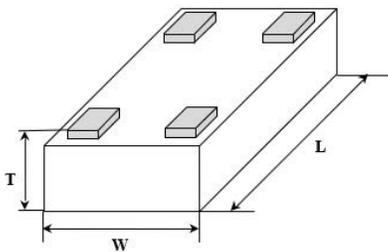
#### ELECTRICAL CHARACTERISTICS

Description	Value
Center frequency	768 MHz
Impedance	50 ohm
I. loss 520 - 800 MHz	-2.5 dB
In-band return loss	-15 dB
Rejection @ 5000 MHz	-30 dB
Rejection @ 1.1 - 1.68 GHz	-35 dB
Power handling (CW)	8 Watt
Operating temperature range	-40/+85 °C
Package	2816

#### TYPICAL ELECTRICAL PERFORMANCE



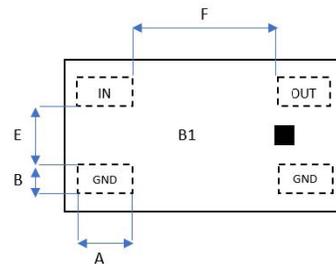
#### DIMENSIONS (BOTTOM VIEW)



#### mm (inches)

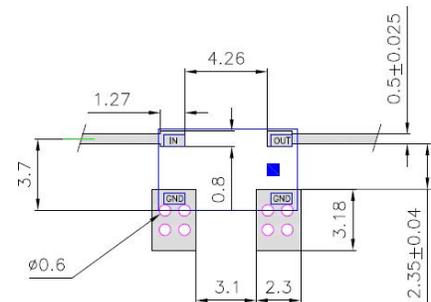
L	7.2 ± 0.3
W	4.2 ± 0.2
T	1.2 max
A	1.1 ± 0.1

#### TERMINALS (TOP VIEW)



B	0.6 ± 0.1
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F	4.43 ± 0.1

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#### EVB P/N: JIG544-7084

# Thin-Film RF/Microwave Filters

## BP2816 8W Band Pass Filter

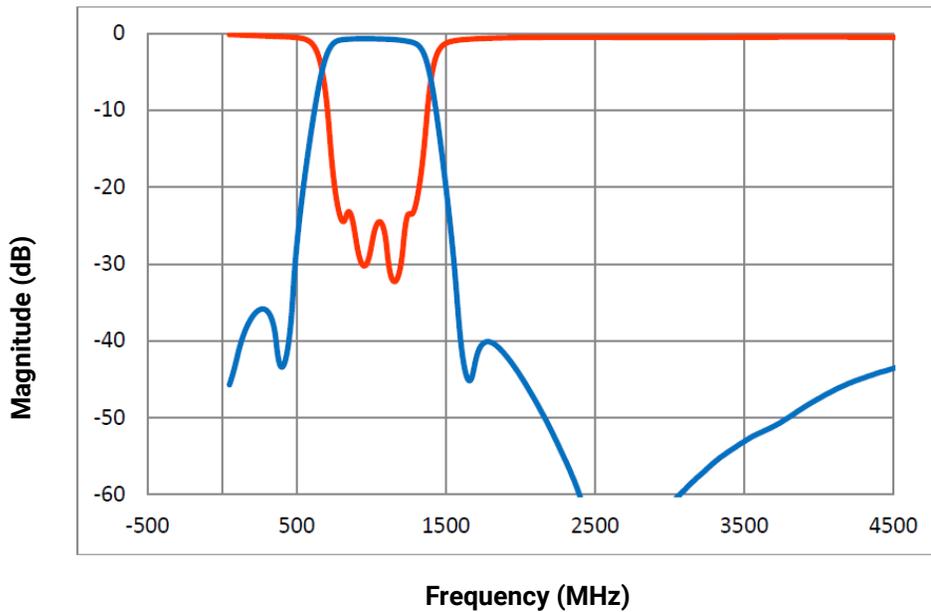
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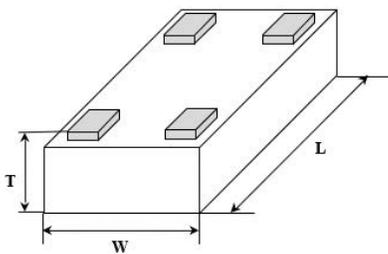
#### ELECTRICAL CHARACTERISTICS

Description	Value
Center frequency	1010 MHz
Impedance	50 ohm
I. loss 760 - 1260 MHz	-1,3 dB
In-band return loss	-15 dB
Rejection @ 450 MHz	-33 dB
Rejection @ 1.6 - 2.0 GHz	-35 dB
Rejection @ 2.0 - 4.5 GHz	-40 dB
Power handling (CW)	8 Watt
Operating temperature range	-40/+85 °C
Package	2816

#### TYPICAL ELECTRICAL PERFORMANCE



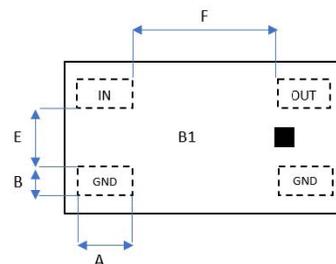
#### DIMENSIONS (BOTTOM VIEW)



mm (inches)

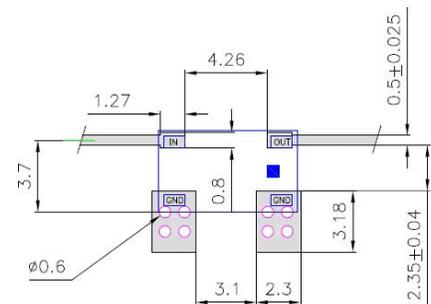
<b>L</b>	7.2 ± 0.3
<b>W</b>	4.2 ± 0.2
<b>T</b>	1.2 max
<b>A</b>	1.1 ± 0.1

#### TERMINALS (TOP VIEW)



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