

# High Frequency Ceramic Solutions

7GHz Band Pass Filter, EIA 0805, High Rejection,  
AEC-Q200 Qualified

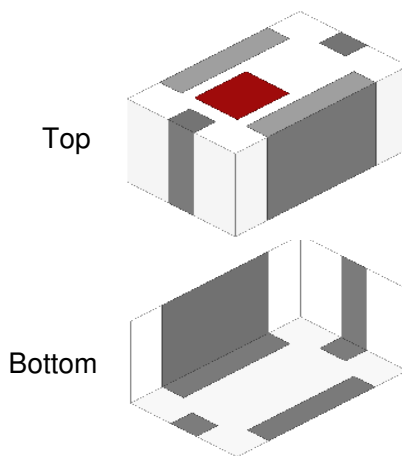
P/N 7000BP15A1600E-AEC

Detail Specification: 10/8/2021

Page 1 of 4

## General Specifications

<b>Part Number</b>	7000BP15A1600E-AEC		
<b>Frequency (MHz)</b>	6200 - 7800		
<b>Insertion loss (dB)</b>	1.75 typ. (2.0 max.)		
<b>Return Loss (dB)</b>	12 typ. (10 min.)		
<b>Group Delay (ns)</b>	0.7 typ. (1.0 max.)		
<b>Attenuation (dB)</b>	39 typ. (30 min.) @2400 - 3400MHz 39 typ. (35 min.) @3400 - 3800MHz 35 typ. (30 min.) @4200 - 5400MHz 5 typ. (3 min.) @5850MHz 30 typ. (25 min.) @8500 - 16000MHz		
<b>ESD Susceptibility (HBM)</b>	2000V min.		
<b>ESD Susceptibility (CDM)</b>	500V min.		
<b>Power Capacity (W)</b>	3 max. (CW)	<b>Recommended Storage Conditions and Period for unused Product on T&amp;R</b>	+5 to +35°C
<b>Operating Temperature</b>	-40 to +105°C		Humidity 45 - 75% RH
<b>Reel Quantity (pcs./reel)</b>	4,000		18 months max.



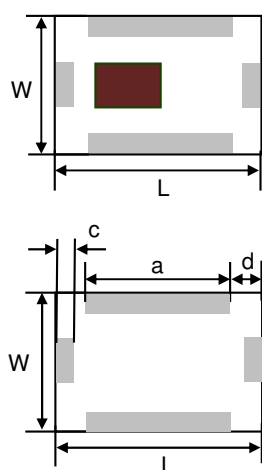
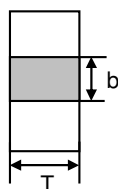
You can download measured s-parameters of this component at: <https://www.johansontechnology.com/band-pass-filters>

## Part Number Explanation

P/N Suffix	Packaging Style	Bulk (loose pcs.)	Suffix = S	E.g. 7000BP15A1600S-AEC
		T & R	Suffix = E	E.g. 7000BP15A1600E-AEC
	Evaluation Board	50Ω SMA	Suffix = EB1SMA	E.g. 7000BP15A1600-EB1SMA

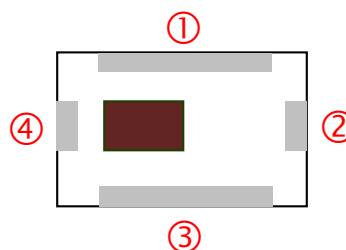
## Mechanical Dimensions

	In	mm
<b>L</b>	0.079 ± 0.006	2.00 ± 0.15
<b>W</b>	0.049 ± 0.004	1.25 ± 0.10
<b>T</b>	0.037 ± 0.004	0.95 ± 0.10
<b>a</b>	0.049 ± 0.006	1.25 ± 0.15
<b>b</b>	0.012 ± 0.006	0.30 ± 0.15
<b>c</b>	0.010 ± 0.006	0.25 ± 0.15
<b>d</b>	0.014 ± 0.006	0.35 ± 0.15



## Terminal Configuration

No.	Function
<b>1</b>	GND
<b>2</b>	INPUT / OUTPUT
<b>3</b>	GND
<b>4</b>	INPUT / OUTPUT



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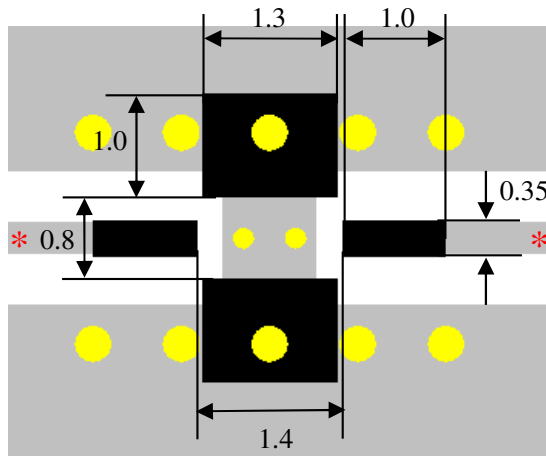
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Page 2 of 4

## Mounting Considerations



Units in mm

■ Solder Resist

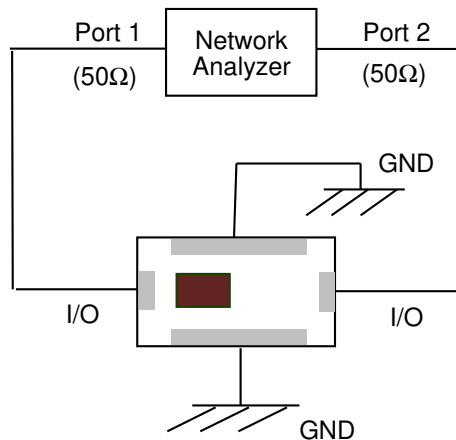
■ Land

● Through-hole ( $\phi 0.2 / \phi$ )

\*Transmission line width should be designed to match 50 $\Omega$  characteristic impedance, depending on PCB material and thickness.

Would you like the layout? Send us a message at: <https://www.johansontechnology.com/ask-a-question>

## Measuring Diagram



Port 1: Filter IN/OUT  
Port 2: Filter IN/OUT

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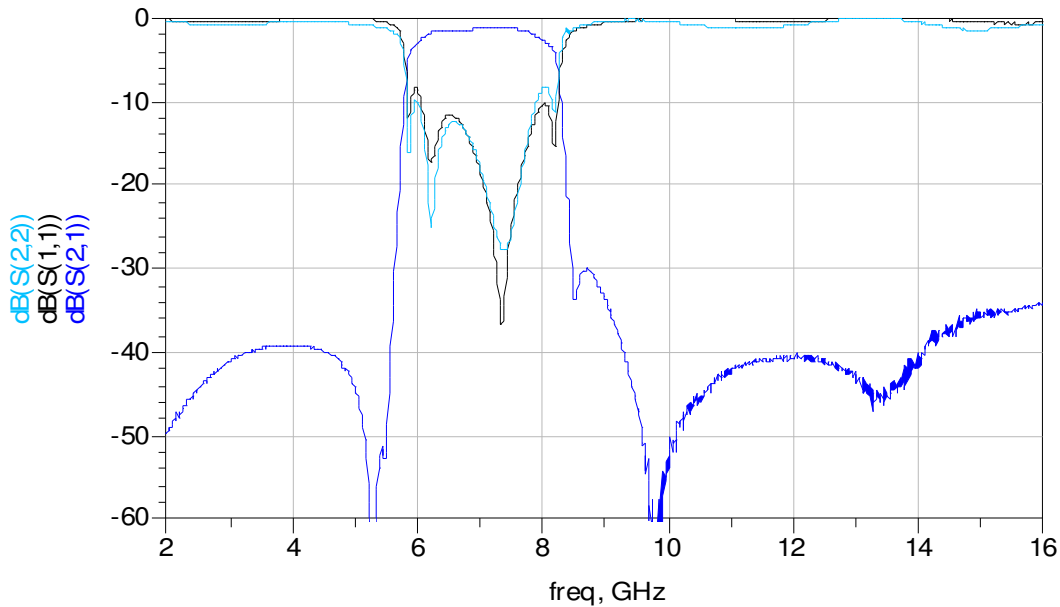
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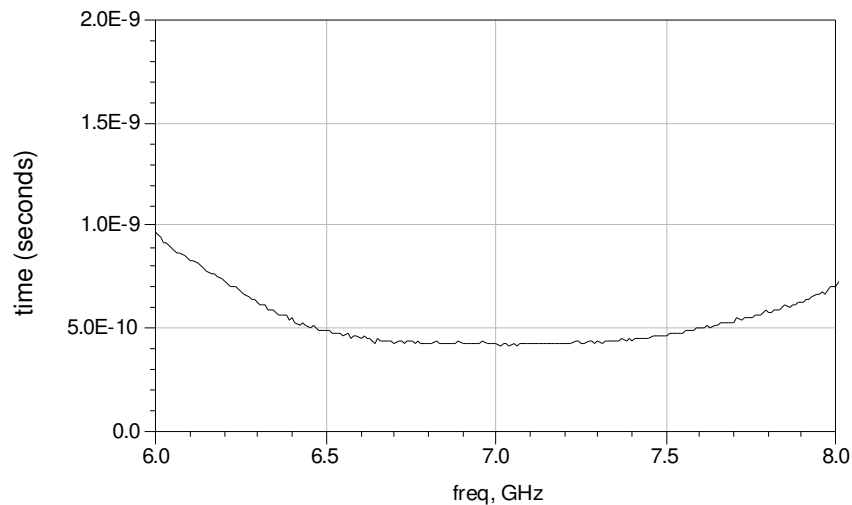
Page 3 of 4

## Typical Electrical Characteristics (T=25°C)

### Insertion Loss & Return loss



### Group Delay



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Page 4 of 4

## Application Notes, Layout Files, and more

<https://www.johansontechnology.com/band-pass-filters>

## Packaging information

<https://www.johansontechnology.com/tape-reel-packaging>

## Soldering Information

<https://www.johansontechnology.com/ipcsoldering-profile>

## MSL Info

<https://www.johansontechnology.com/msl-rating>

## Recommended Storage Condition and Max Shelf Life

<https://www.johansontechnology.com/recommended-storage-conditions>

## RoHS Compliance

<https://www.johansontechnology.com/rohs-compliance>

## Antenna layout and tuning techniques

<https://www.johansontechnology.com/tuning>

## Antenna layout review, tuning, and characterization services

<https://www.johansontechnology.com/ipc-antenna-services>

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