

DATA SHEET

Filters & Combiners

700 MHz RX Bandpass Test Filter

BPT-0703748-0-S3



- 1W filter with an RX band pass of 45 MHz in the 700 MHz RX Band
- Excellent rejection of ≥ 20 dB within 10 MHz of the pass band
- High reliability of >500K Hours MTBF

Overview

Communication Components, Inc. Dual bandpass filter allows a 45 MHz pass band in the RX portion of the 700 MHz Band, while rejecting signals within 10 MHz of the passband.

The CCI Bandpass filter provides optimal performance for the passband with low insertion loss, low Intermodulation, and high power handling. Excellent return loss delivers the best match to the antennas and base station, saving precious transmit power. The Bandpass filter is the ideal solution for providing additional rejection at the band edge.

Technical Description:

The bandpass filter consists of multiple cavity resonators to achieve 20 dB of rejection within 10 MHz of the pass band. Extensive temperature compensation is employed to insure frequency stability over the specified temperature range.

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Electrical Return Loss Input TX/RX 703-748 15 dB minimum Output TX/RX 703-748 15 dB minimum Output TX/RX 703-748 15 dB minimum Insertion Loss Input to Output 703-748 12 dB maximum Rejection Input to Output 693 20 dB minimum Rejection Input to Output 693 20 dB minimum Centratetristics Impedance 50 ohms Continuous Average Power 1 W max. Peak Power 10 W Max. Environmental Operating Temperature -20°C to +70°C Ingress Protection IP20 (Indoor) MEChanical Model Single Losing Dimensions (KDWXD) 80.0 x 54.0 x 50.0 mm (3.15 x 2.13 x 1.97 in.) Dimensions WConnectors 118.0 x 54.0 x 50.6 mm (4.55 x	SPECIFICATIONS	700 MHz RX Bandpass Test Filter				BPT-0703748-0-S3	
Return Loss Input TX/RX 703-748 15 dB minimum Output TX/RX 703-748 15 dB minimum Output TX/RX 703-748 12 dB maximum Insertion Loss Input to Output 703-748 12 dB maximum Rejection Input to Output 693 20 dB minimum 758 20 dB minimum 758 20 dB minimum General Characteristics Impedance 50 ohms Continuous Average Power 1 W max. Peak Power 10 W Max. Peak Power 1P20 (Indoor) IP20 (Indoor) MTBF >500,000 hours		Electrical					
Output TX/RX 703-748 15 dB minimum Insertion Loss Input to Output 703-748 1.2 dB maximum Rejection Input to Output 693 20 dB minimum General Characteristics Impedance 50 ohms 20 dB minimum Continuous Average Power 1 W max. Peak Power 10 W Max. Peak Power 10 W Max. -20°C to +70°C Ingress Protection Ingress Protection IP20 (Indoor) IP20 (Indoor) MTBF >500,000 hours Single Mechanical 2 × N-female Housing Dimensions (HXWXD) 80.0 x 54.0 x 50.0 mm (3.15 x 2.13 x 1.97 in.) Dimensions w/Connectors 118.0 x 54.0 x 50.6 mm (4.65 x 2.13 x 1.99 in.)		RF Parameters	Ports		Frequency(MHz)	Specification	
Insertion Loss Input to Output 703-748 1.2 dB maximum Rejection Input to Output 693 20 dB minimum 758 20 dB minimum General Characteristics Impedance 50 ohms Continuous Average Power 1 W max. Peak Power 10 W Max. Environmental Operating Temperature -20°C to +70°C Ingress Protection IP20 (Indoor) MTBF >500,000 hours Mechanical Mechanical Mechanical Single Connectors 2 × N-female Housing Dimensions (HxWxD) 80.0 × 54.0 × 50.6 mm (4.65 × 2.13 × 1.97 in.) Dimensions w/Connectors 118.0 × 56.6 mm (4.65 × 2.13 × 1.90 in.)		Return Loss	Input TX/RX		703-748	15 dB minimum	
Rejection Input to Output 693 20 dB minimum General Characteristics Impedance 50 ohms Impedance 50 ohms Continuous Average Power 1 W max. Peak Power 10 W Max. Environmental Operating Temperature -20°C to +70°C Ingress Protection IP20 (Indoor) MTBF >500,000 hours Mechanical Model Single Connectors 2 × N-female Housing Dimensions (HxWxD) 80.0 x 54.0 x 50.0 mm (3.15 x 2.13 x 1.97 in.) Dimensions W/Connectors 118.0 x 54.0 x 50.6 mm (4.65 x 2.13 x 1.99 in.)			Output TX/RX		703-748	15 dB minimum	
758 20 dB minimum General Characteristics Impedance 50 ohms Continuous Average Power 1 W max. Peak Power 10 W Max. Environmental Operating Temperature -20° C to +70° C Ingress Protection IP20 (Indoor) MTBF >500,000 hours Mechanical Mechanical Mechanical Model Single Connectors 2 × N-female Housing Dimensions (HxWxD) 80.0 × 54.0 × 50.0 mm (3.15 × 2.13 × 1.97 in.)		Insertion Loss	Input to Output		703-748	1.2 dB maximum	
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Impedance 50 ohms Continuous Average Power 1 W max. Peak Power 10 W Max. Environmental -20°C to +70°C Ingress Protection IP20 (Indoor) MTBF >500,000 hours Mechanical Single Connectors 2 × N-female Housing Dimensions (HxWxD) 80.0 x 54.0 x 50.0 mm (3.15 x 2.13 x 1.97 in.) Dimensions w/Connectors 118.0 x 54.0 x 50.6 mm (4.65 x 2.13 x 1.99 in.)					758	20 dB minimum	
Continuous Average Power 1 W max. Peak Power 10 W Max. Environmental -20°C to +70°C Ingress Protection IP20 (Indoor) MTBF >500,000 hours Mechanical Single Connectors 2 × N-female Housing Dimensions (HxWxD) 80.0 × 54.0 × 50.0 mm (3.15 × 2.13 × 1.97 in.) Dimensions w/Connectors 118.0 × 54.0 × 50.6 mm (4.65 × 2.13 × 1.99 in.)		General Characteristics					
Peak Power 10 W Max. Environmental		Impedance	50 ohms				
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Ingress Protection IP20 (Indoor) MTBF >500,000 hours Mechanical Single Connectors 2 × N-female Housing Dimensions (HxWxD) 80.0 x 54.0 x 50.0 mm (3.15 x 2.13 x 1.97 in.) Dimensions w/Connectors 118.0 x 54.0 x 50.6 mm (4.65 x 2.13 x 1.99 in.)							
MTBF >500,000 hours Mechanical Single Connectors 2 × N-female Housing Dimensions (HxWxD) 80.0 x 54.0 x 50.0 mm (3.15 x 2.13 x 1.97 in.) Dimensions w/Connectors 118.0 x 54.0 x 50.6 mm (4.65 x 2.13 x 1.99 in.)		Operating Temperature	-20°C to +70°C				
MechanicalModelSingleConnectors2 × N-femaleHousing Dimensions (HxWxD)80.0 x 54.0 x 50.0 mm (3.15 × 2.13 × 1.97 in.)Dimensions w/Connectors118.0 x 54.0 x 50.6 mm (4.65 x 2.13 × 1.99 in.)		Ingress Protection	IP20 (Indoor)				
Model Single Connectors 2 × N-female Housing Dimensions (HxWxD) 80.0 x 54.0 x 50.0 mm (3.15 × 2.13 × 1.97 in.) Dimensions w/Connectors 118.0 x 54.0 x 50.6 mm (4.65 x 2.13 × 1.99 in.)		MTBF	>500,000 hours				
Model Single Connectors 2 × N-female Housing Dimensions (HxWxD) 80.0 x 54.0 x 50.0 mm (3.15 × 2.13 × 1.97 in.) Dimensions w/Connectors 118.0 x 54.0 x 50.6 mm (4.65 x 2.13 × 1.99 in.)		Maghanical					
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Housing Dimensions (HxWxD) 80.0 x 54.0 x 50.0 mm (3.15 x 2.13 x 1.97 in.) Dimensions w/Connectors 118.0 x 54.0 x 50.6 mm (4.65 x 2.13 x 1.99 in.)							
Dimensions w/Connectors $118.0 \times 54.0 \times 50.6 \text{ mm} (4.65 \times 2.13 \times 1.99 \text{ in})$							
		-		80.0 x 54.0 x 50.0 mm (3.15 × 2.13 × 1.97 in.)			
		Dimensions w/Connectors (HxWxD)		118.0 x 54.0 x 50.6 mm (4.65 x 2.13 x 1.99 in.)			
Weight 0.5 kg (1.1 lbs)		Weight			0.5 kg (1.1 lt	os)	
Mounting Optional mounting bracket available		Mounting		O	otional mounting bra	cket available	

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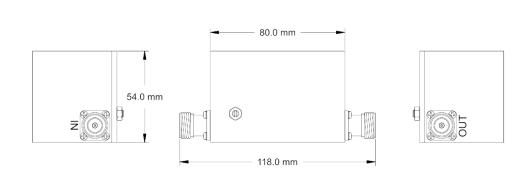
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SPECIFICATIONS

700 MHz RX Bandpass Test Filter

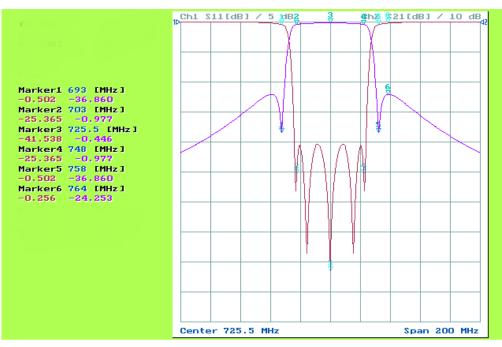
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Indoor Passband Filter Outline Drawing BPT-0703748-0-S3

Filter Characteristics



BPT-0703748-0-S3 RX Filter Characteristics

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STANDARDS & CERTIFICATIONS

07/15/2019

700 MHz RX Bandpass Test Filter

BPT-0703748-0-S3

Parts & Accessories

BPT-0703748-0-S3 Single 45 MHz Outdoor Bandpass filter pass band of 703-748 MHz with N-female connectors and No DC/AISG Pass-thru

Standards & Compliance

Safety	EN 60950-1, UL 60950-1
Emission	EN 55022
Immunity	EN 55024
Environmental	IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-5, IEC 60068-2-6, IEC-60068-2-11, IEC 60068-2-14, IEC 60068-2-18, IEC 60068-2-27, IEC 60068-2-29, IEC 60068-02-30, IEC 60068-2-52, IEC 60068-2-64, IEC61000-4-5, GR-63-CORE 4.3.1, EN 60529 IP67, IP68

Certifications

Federal Communication Commission (FCC) Part 15 Class B, CE, CSA US, ISO 9001



