

Positive Train Control (PTC) Filter, Railroad RF Band Pass with Surge Protector, 217 MHz to 223 MHz, Type N F/F, 100W CW, IP67, 50uJ, 10kA



RRF-220-NFF

Features

- Surge current 10kA
- Max Power 100W
- Frequency Range from 217Mhz to 223MHz
- N-Type Female connectors
- Waterproof IP67 rated
- VSWR Typical 1.22:1

Description

RF band pass filter RRF-220-NFF from PolyPhaser, integrates filtering elements and RF lightning protection (also known as lightning arrester or surge arrester). This RF filter is manufactured in a coaxial in-line design with a specific operating frequency range. All PolyPhaser RF surge protector products are available in stock with same day shipping.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Passband Frequency	217		223	MHz
Impedance		50		Ohms
Insertion Loss			1	dB
Passband VSWR		1.22:1		
Passband Return Loss		20		dB
Rejection at 160 MHz		60		dB
Rejection at 460 MHz		45		dB
Surge Current 10kA IEC 61000-4-5 8/20µs WAVEFORM			10	kA
Turn On Voltage		90 ±20 %		Volts
Throughput Voltage			0.5	Volts
Throughput Energy FOR 3kA @8/20µs WAVEFORM		50		uJ
Input Power, CW			100	Watts

Electrical Specification Notes:
Values at 25°C, sea level.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Positive Train Control \(PTC\) Filter, Railroad RF Band Pass with Surge Protector, 217 MHz to 223 MHz, Type N F/F, 100W CW, IP67, 50uJ, 10kA RRF-220-NFF](#)

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Mechanical Specifications

Size

Length	6.7 in [170.18 mm]
Width	3 in [76.2 mm]
Height	1.42 in [36.07 mm]
Weight	1 lbs [453.59 g]

Configuration

Design	Bidirectional Lumped Elements
Number of Sections	
Connector 1	N Female
Connector 2	N Female

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
Ingress Protection (IP) Rating	IP67

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

- Values at 25°C, sea level.

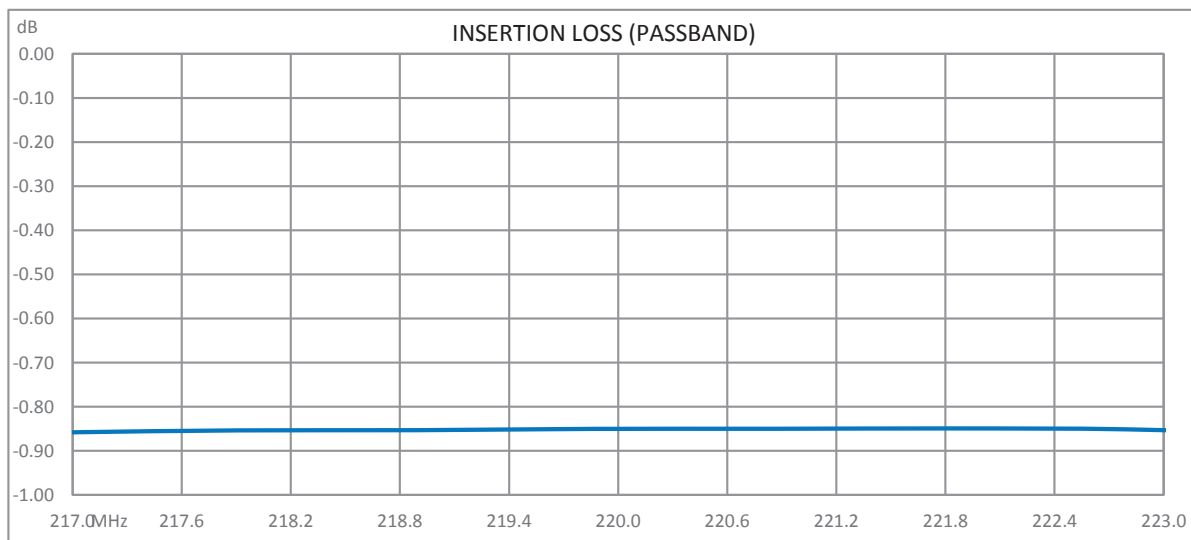
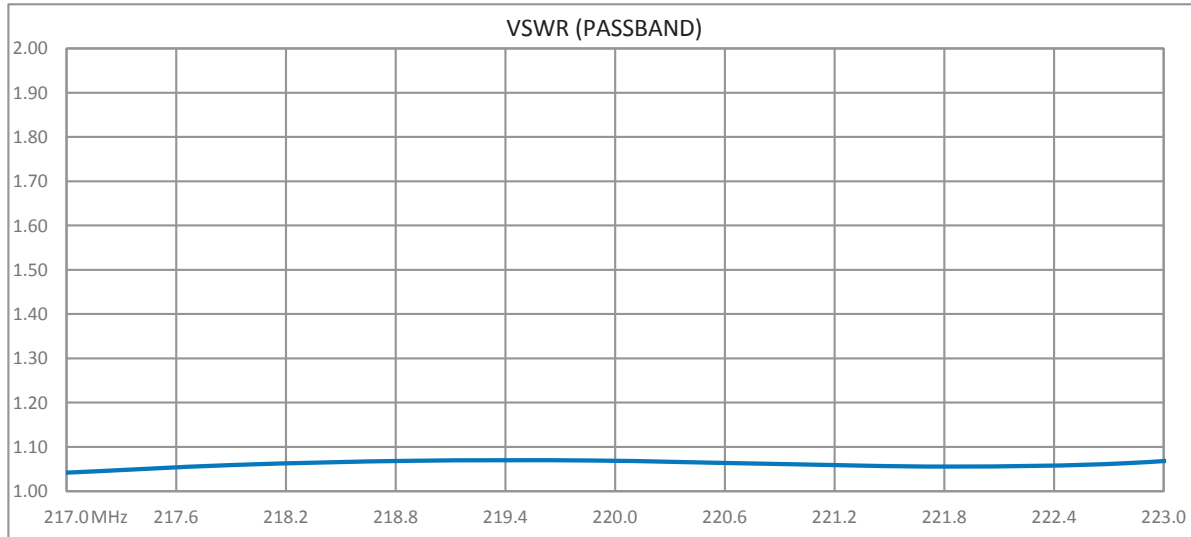
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Typical Performance Data

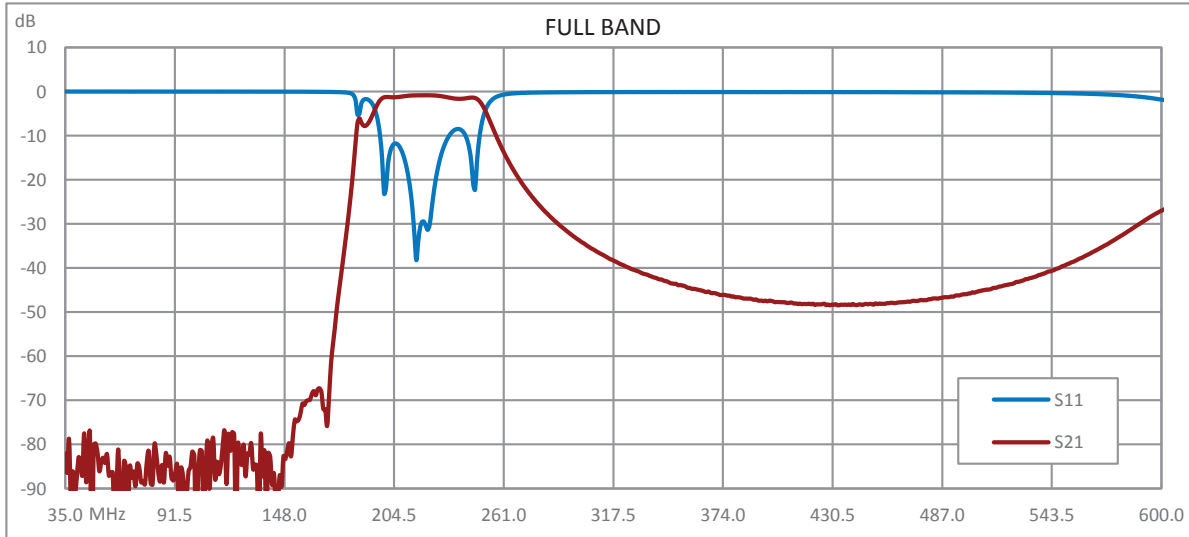


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PolyPhaser protects and increases the reliability of global RF communications networks, including transportation, telecommunications, defense, security and industrial applications, with superior RF surge protection technologies including DC Block, DC Pass and Ultra Low PIM. Backed by responsive service and expert technical support PolyPhaser continually expands its product offering and services to serve engineers' urgent needs for RF components in mission critical communication networks.

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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. PolyPhaser reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. PolyPhaser does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and PolyPhaser does not assume any liability arising out of the use of any part or documentation.

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RRF-220-NFF CAD Drawing

