



## TYPICAL CHARACTERISTICS ON 9BP840-52-CD-SFF

PMI MODEL: 9BP840-52-CD-SFF IS A BAND PASS FILTER WITH A CENTER FREQUENCY OF 840 MHz AND A NOMINAL BANDWIDTH OF 52 MHz. THIS UNIT HAS A TYPICAL INSERTION LOSS OF 6.0 dB INSIDE THE SMALL 2.00" x 0.50" x 0.50" PACKAGE OUTFITTED WITH SMA FEMALE CONNECTORS.



August 18, 2021

Page 1 of 9

7311-F Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731  
Email: [sales@pmi-rf.com](mailto:sales@pmi-rf.com)



# TYPICAL CHARACTERISTICS ON 9BP840-52-CD-SFF

## TABLE OF CONTENTS

1.	Product Feature: -----	3
2.	Test Data Summary at +25 Degree Celsius: -----	4
3.	Test Data at +25 Degree Celsius: -----	5
4.	Test Data Summary at 0 Degree Celsius: -----	6
5.	Test Data at 0 Degree Celsius: -----	7
6.	Test Data Summary at +50 Degree Celsius: -----	8
7.	Test Data at +50 Degree Celsius: -----	9



# TYPICAL CHARACTERISTICS ON 9BP840-52-CD-SFF

## OUTLINE DRAWING

### DESCRIPTION

PMI MODEL: 9BP840-52-CD-SFF IS A BAND PASS FILTER WITH A CENTER FREQUENCY OF 840 MHz AND A NOMINAL BANDWIDTH OF 52.0 MHz. THIS UNIT HAS A MAXIMUM INSERTION LOSS OF 6.0 dB INSIDE THE SMALL 2.00" x 0.50" x 0.50" PACKAGE OUTFITTED WITH SMA FEMALE CONNECTORS.

### SPECIFICATIONS

- CENTER FREQUENCY: ..... 840 MHz NOMINAL
- 3 dB BANDWIDTH: ..... 52 MHz NOMINAL
- PASSBAND INSERTION LOSS: ..... 6.0 dB MAXIMUM
- PASSBAND VSWR: ..... 1.5:1 MAXIMUM
- STOPBAND ATTENUATION: ..... 70 dB MINIMUM @ 720 MHz  
70 dB MINIMUM @ 960 MHz
- POWER HANDLING: ..... +30 dBm MAXIMUM
- IMPEDANCE: ..... 50 Ω
- CONNECTORS: ..... SMA FEMALE
- SIZE: ..... 2.00" x 0.50" x 0.50"  
50.80 mm x 12.70 mm x 12.70 mm
- SURFACE FINISH: ..... BLUE EPOXY POLIMIDE COATING IAW MIL-C-22750, TYPE I OVER EPOXY POLIMIDE PRIMER IAW MIL-P-23377, TYPE I, CLASS 1 OR 3.

### ENVIRONMENTAL RATINGS

- TEMPERATURE: ..... -0 °C TO +50 °C (OPERATING)
- HUMIDITY: ..... MIL-STD-202, METHOD 103B COND. B
- SHOCK: ..... MIL-STD-202, METHOD 213B COND. B
- VIBRATION: ..... MIL-STD-202, METHOD 204D COND. B
- ALTITUDE: ..... MIL-STD-202, METHOD 105C COND. B
- TEMPERATURE CYCLE: ..... MIL-STD-202, METHOD 107D COND. A

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE  
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ALL DIMENSIONS ARE IN mm [INCH]  
TOLERANCES:  
X.XX ±0.508 [0.020]  
X.XXX ±0.254 [0.010]

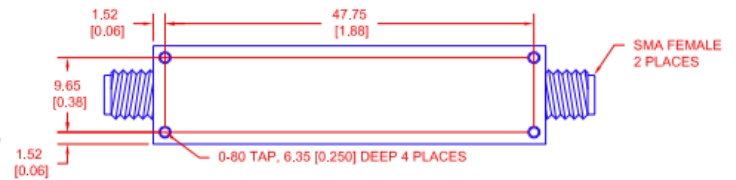
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	05/19/21	
	A2	ECN # 21-0139	08/25/21	

### MECHANICAL OUTLINE

#### TOP VIEW



#### BOTTOM VIEW



PMI CONFIDENTIAL AND PROPRIETARY

### PLANAR MONOLITHICS INDUSTRIES, INC.

7311-F GROVE ROAD  
FREDERICK, MARYLAND 21704 USA  
TEL: (301)-662-5019, FAX: (301)-662-1731  
WEB: www.pmi-rf.com, EMAIL: sales@pmi-rf.com  
ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE		
DRAWN <i>M. Berry</i>		08/11/16	PRODUCT FEATURE 9BP840-52-CD-SFF		
CHECKED			SIZE A	FIGM NO. 05XQ0	DWG NO. 27042060
ISSUED			SCALE N:S		REV. A2
					SHEET 1 OF 1



# TYPICAL CHARACTERISTICS ON 9BP840-52-CD-SFF

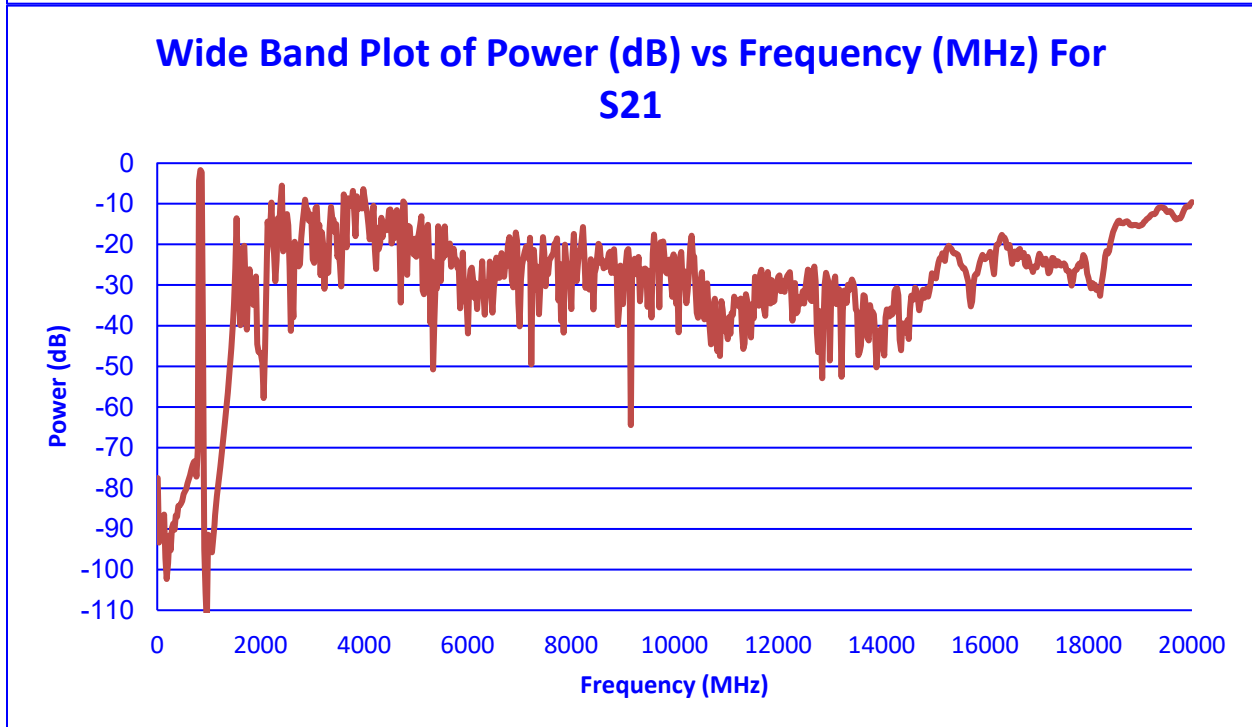
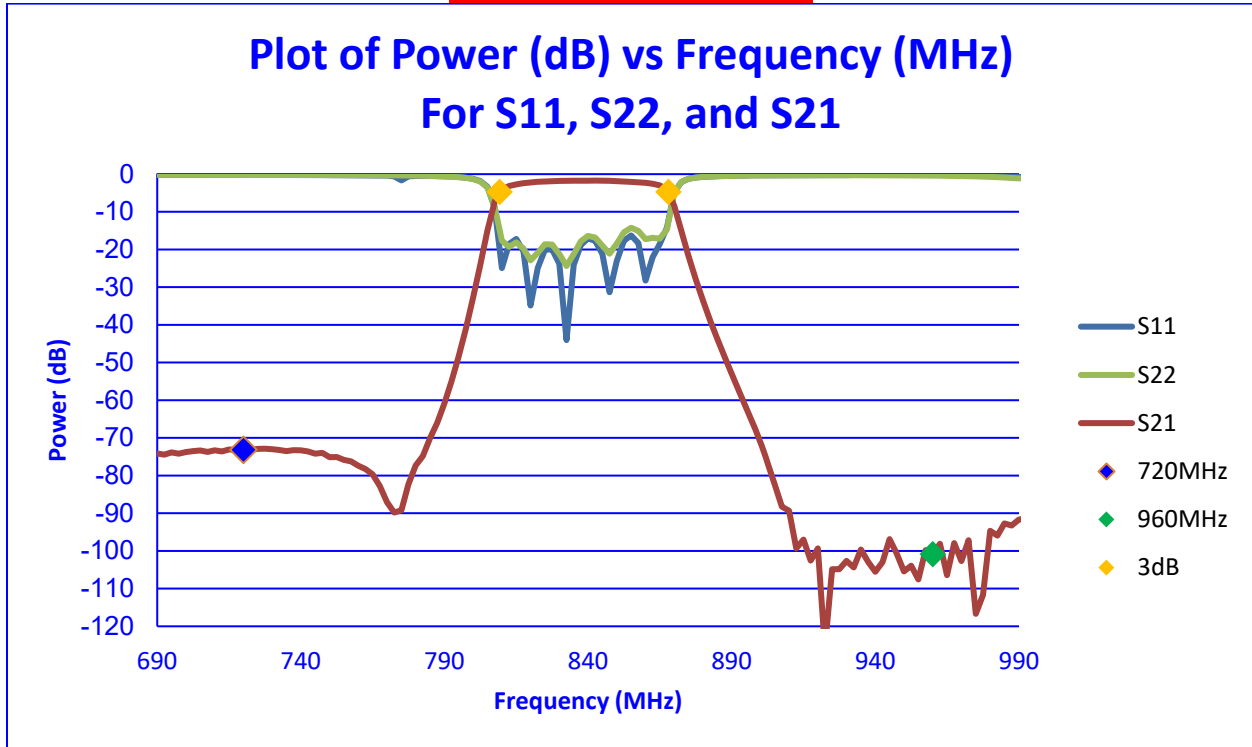
## TEST DATA SUMMARY AT 25°C

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	Test Results	QA QC
1	Center Frequency:	840 MHz NOMINAL	<b>835 MHz</b>	
2	3 dB Bandwidth:	52 MHz NOMINAL	<b>58.8 MHz</b>	
3	Passband Insertion Loss:	6.0 dB Max.	<b>4.72 dB</b>	
4	Passband VSWR:	1.5:1 Max.	<b>1.48:1</b>	
5	Stopband Attenuation:	70 dB Min @ 720 MHz 70 dB Min @ 960 MHz	<b>73.1 dB</b> <b>100.9 dB</b>	
6	Power Handling:	+30 dBm Max.	<b>+30 dBm Max.</b>	
7	Impedance:	50Ω	<b>50Ω</b>	



# TYPICAL CHARACTERISTICS ON 9BP840-52-CD-SFF

TEST DATA AT 25°C





# TYPICAL CHARACTERISTICS ON 9BP840-52-CD-SFF

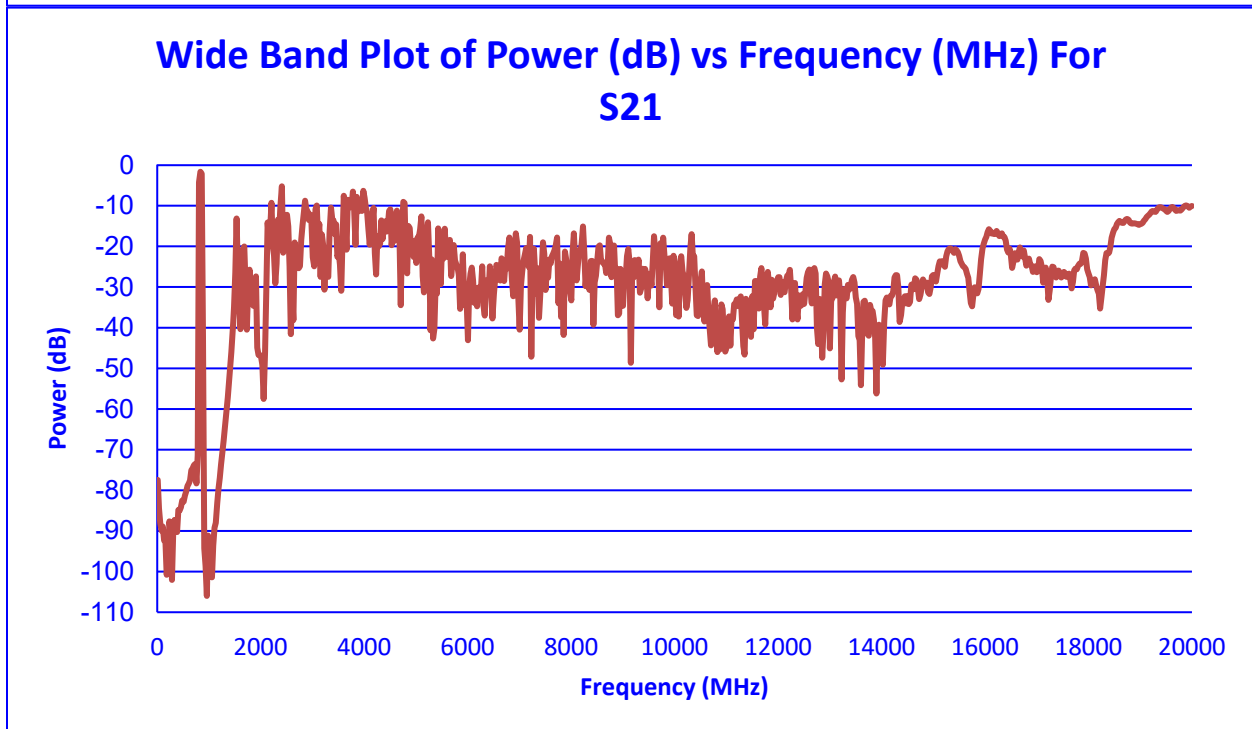
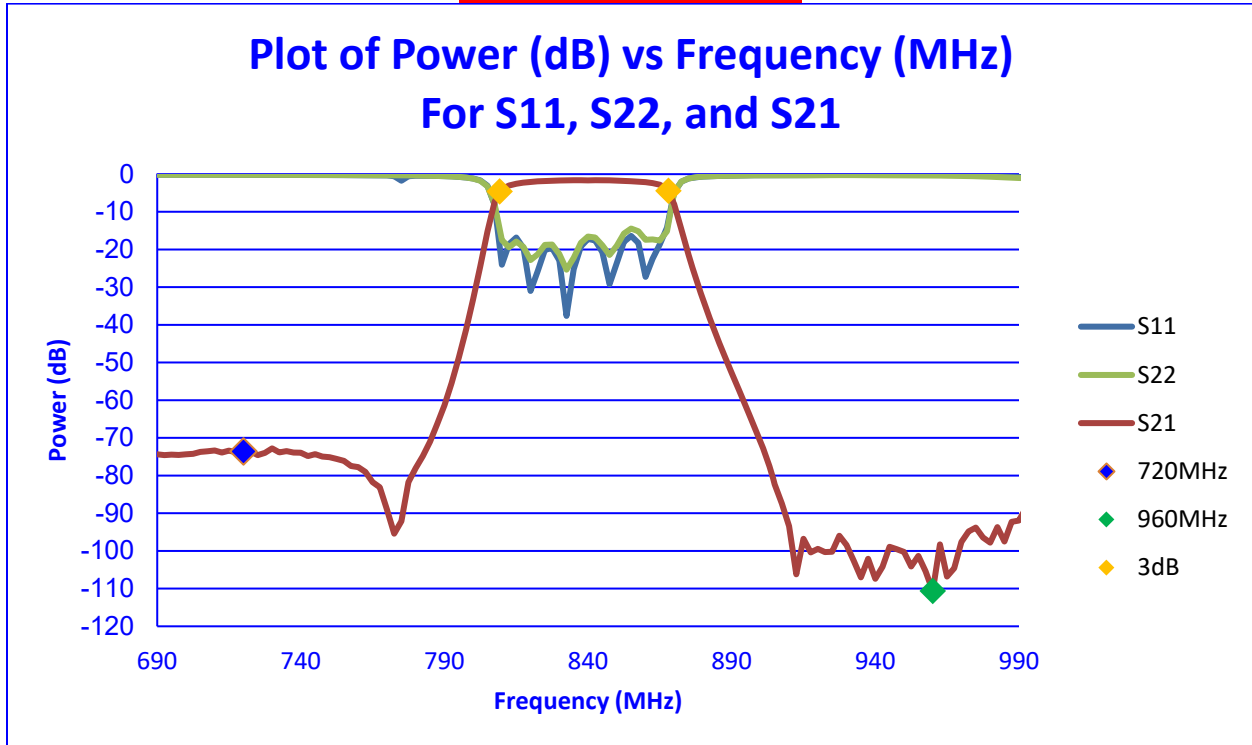
## TEST DATA SUMMARY AT 0°C

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	Test Results	QA QC
1	Center Frequency:	840 MHz NOMINAL	<b>835 MHz</b>	
2	3 dB Bandwidth:	52 MHz NOMINAL	<b>58.8 MHz</b>	
3	Passband Insertion Loss:	6.0 dB Max.	<b>4.61 dB</b>	
4	Passband VSWR:	1.5:1 Max.	<b>1.47:1</b>	
5	Stopband Attenuation:	70 dB Min @ 720 MHz 70 dB Min @ 960 MHz	<b>73.6 dB</b> <b>110.6 dB</b>	
6	Power Handling:	+30 dBm Max.	<b>+30 dBm Max.</b>	
7	Impedance:	50Ω	<b>50Ω</b>	



# TYPICAL CHARACTERISTICS ON 9BP840-52-CD-SFF

## TEST DATA AT 0°C





# TYPICAL CHARACTERISTICS ON 9BP840-52-CD-SFF

## TEST DATA SUMMARY AT 50°C

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	Test Results	QA QC
1	Center Frequency:	840 MHz NOMINAL	<b>835 MHz</b>	
2	3 dB Bandwidth:	52 MHz NOMINAL	<b>58 MHz</b>	
3	Passband Insertion Loss:	6.0 dB Max.	<b>4.82 dB</b>	
4	Passband VSWR:	1.5:1 Max.	<b>1.49:1</b>	
5	Stopband Attenuation:	70 dB Min @ 720 MHz 70 dB Min @ 960 MHz	<b>73 dB</b> <b>110 dB</b>	
6	Power Handling:	+30 dBm Max.	<b>+30 dBm Max.</b>	
7	Impedance:	50Ω	<b>50Ω</b>	



# TYPICAL CHARACTERISTICS ON 9BP840-52-CD-SFF

## TEST DATA AT 50°C

