



**TYPICAL CHARACTERISTICS  
ON  
PEC-218-BRF-SM-TNCF**

**PMI MODEL PEC-218-BRF-SM-TNCF IS A SWITCHED FILTER CONTAINING TWO PATHS. THE FIRST PATH IS A 2.0 TO 18.50 GHz THRU PATH. THE SECOND PATH INCLUDES A 60dB REJECTION FROM 4.2 TO 4.4 GHz.**



**August 5, 2014**

**Designed By: PMI Engineering**

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# TYPICAL CHARACTERISTICS ON PEC-218-BRF-SM-TNCF

### DESCRIPTION

PMI MODEL PEC-218-BRF-SM-TNCF IS A SWITCHED FILTER CONTAINING TWO PATHS. THE FIRST PATH IS A 2.0 TO 18.0 GHz THRU PATH. THE SECOND PATH INCLUDES A 60dB REJECTION FROM 4.2 TO 4.4 GHz.

### SPECIFICATIONS

- FREQUENCY RANGE: 2.0 TO 18.0 GHz
- INSERTION LOSS:
  - THRU PATH: 2.5dB TYP
  - FILTER PATH: 4.0dB TYP
- 3dB PASSBAND CUTOFF FREQUENCY: 4.0 AND 4.6GHz
- REJECTION LEVEL AND FREQUENCY: -60dB MIN AT 4.2 TO 4.4GHz
- VSWR (INPUT/OUTPUT): 2.0:1 MAX
- SWITCH ISOLATION (PATH TO PATH): 70dB TYP
- INPUT POWER: 1 WATT CW, 10 WATTS PEAK
- DC VOLTAGE: +28VDC
- SIZE: (L) 8.0" X (W) 6.0" X (H) 2.0"
- FINISH: CLEAR RIBBITED WITH BLUE SILKSREEN

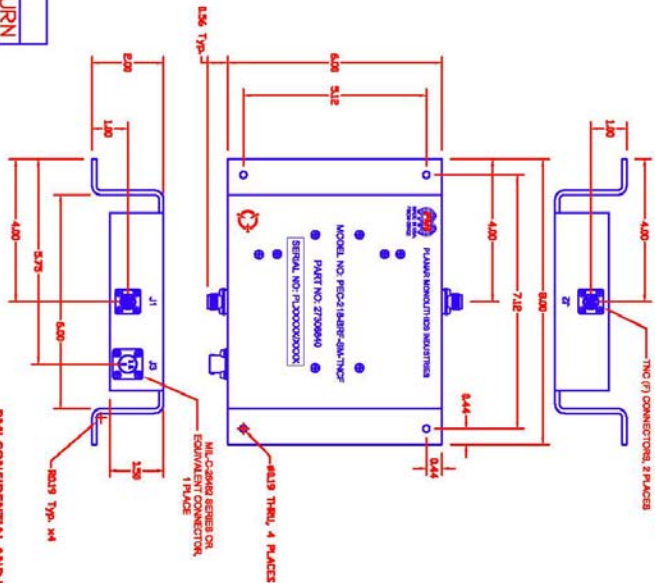
### ENVIRONMENTAL RATINGS

- TEMPERATURE: -55°C TO +85°C (OPERATING)
  - TEMPERATURE: -65°C TO +125°C (STORAGE)
  - HUMIDITY: MIL-STD-202F, METHOD 103B COND. B
  - SHOCK: MIL-STD-202F, METHOD 213B COND. B
  - VIBRATION: MIL-STD-202F, METHOD 2040 COND. B
  - ALTITUDE: MIL-STD-202F, METHOD 103C COND. B
  - THERMAL SHOCK CYCLES: MIL-STD-202F, METHOD 1079 COND. A
- NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE IN REVISION

J3 PINOUT	
A	+28 VDC
B	+28 VDC RETURN
C	CHASSIS GROUND

ALL DIMENSIONS ARE IN INCHES  
TOLERANCES:  
XXX .0100  
XXX .0170

### MECHANICAL OUTLINE



PMI CONFIDENTIAL AND PROPRIETARY

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ISO 9001 CERTIFIED



APPROVALS	DATE	TITLE		
DESIGN: JCL	4/16/07	PRODUCT FEATURE PEC-218-BRF-SM-TNCF		
CHECKED: JCL	07/09/11			
REV. 1	A	05X00	27006841	REV. A1
SCALE: N:1	SHEET 1 OF 1			

REVISIONS		DATE	APPROVED
ZONE	REV.	DESCRIPTION	
-	A1	PRELIMINARY RELEASE ECN # 14-0098	5/26/12 07/09/11



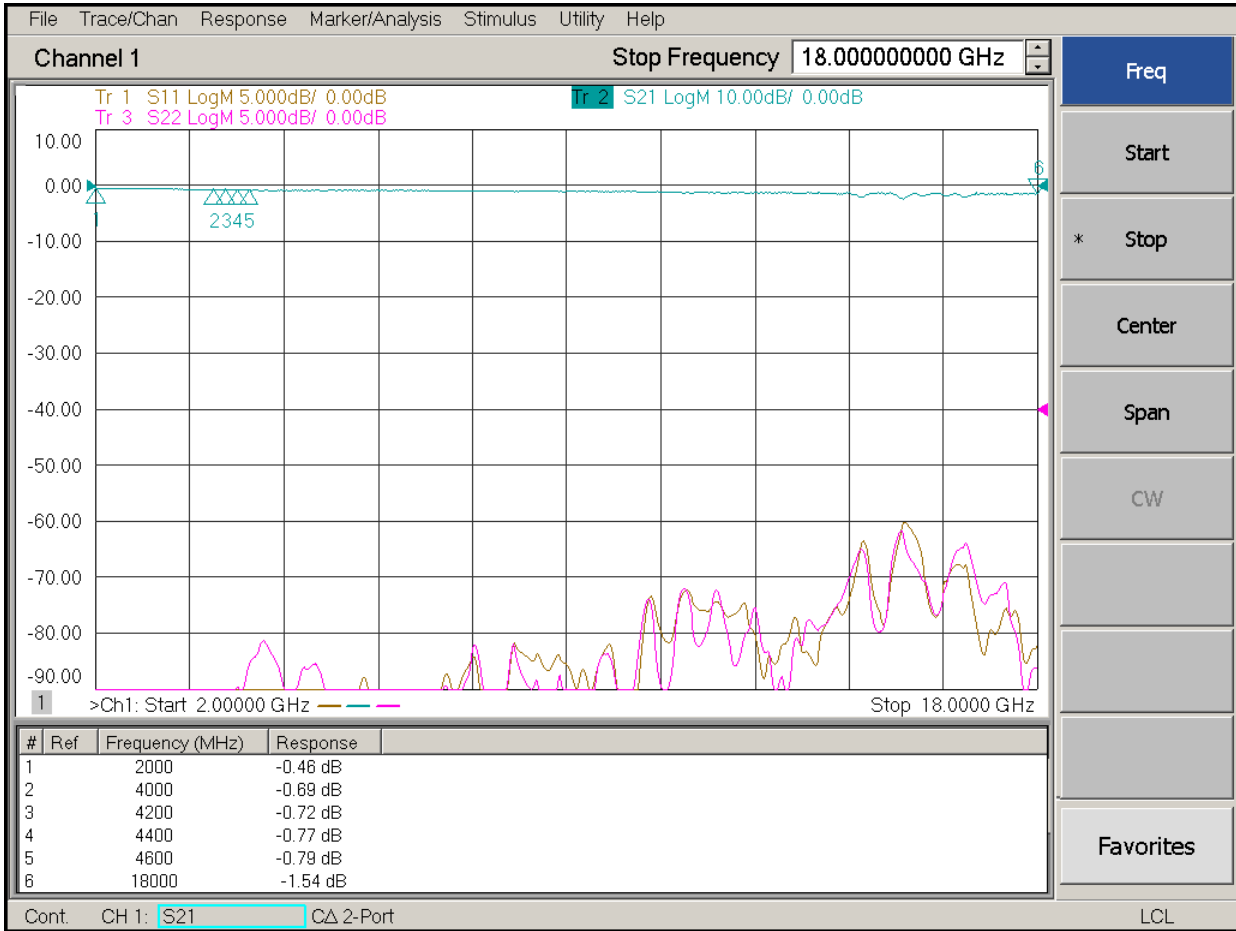
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TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	2.0 to 18.0 GHz	<b>2.0 to 18.0 GHz See Plots</b>	
2	Insertion Loss:	Thru Path : 2.5dB Typ Filter Path : 4.0dB Typ	<b>1.54dB 2.87dB See Plots</b>	
3	-3dB Passband Cutoff Frequency:	4.0 and 4.6 GHz	<b>4.0 and 4.6 GHz See Plots</b>	
4	Rejection Level and Frequency:	-60dB Min at 4.2 to 4.4 GHz	<b>-68.94dB See Plots</b>	
5	VSWR (Input/Output):	2.0:1 Max	<b>2.0:1 See Plots</b>	
6	Switch Isolation (Path to Path)	70dB Typ.	<b>70dB Min.</b>	
7	Input Power:	1 Watt CW, 10 Watts Peak	<b>Pass</b>	
8	DC Voltage	+28VDC	<b>+28VDC @ 195mA</b>	



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**Swept Plot – Thru Path (No Power Applied)**

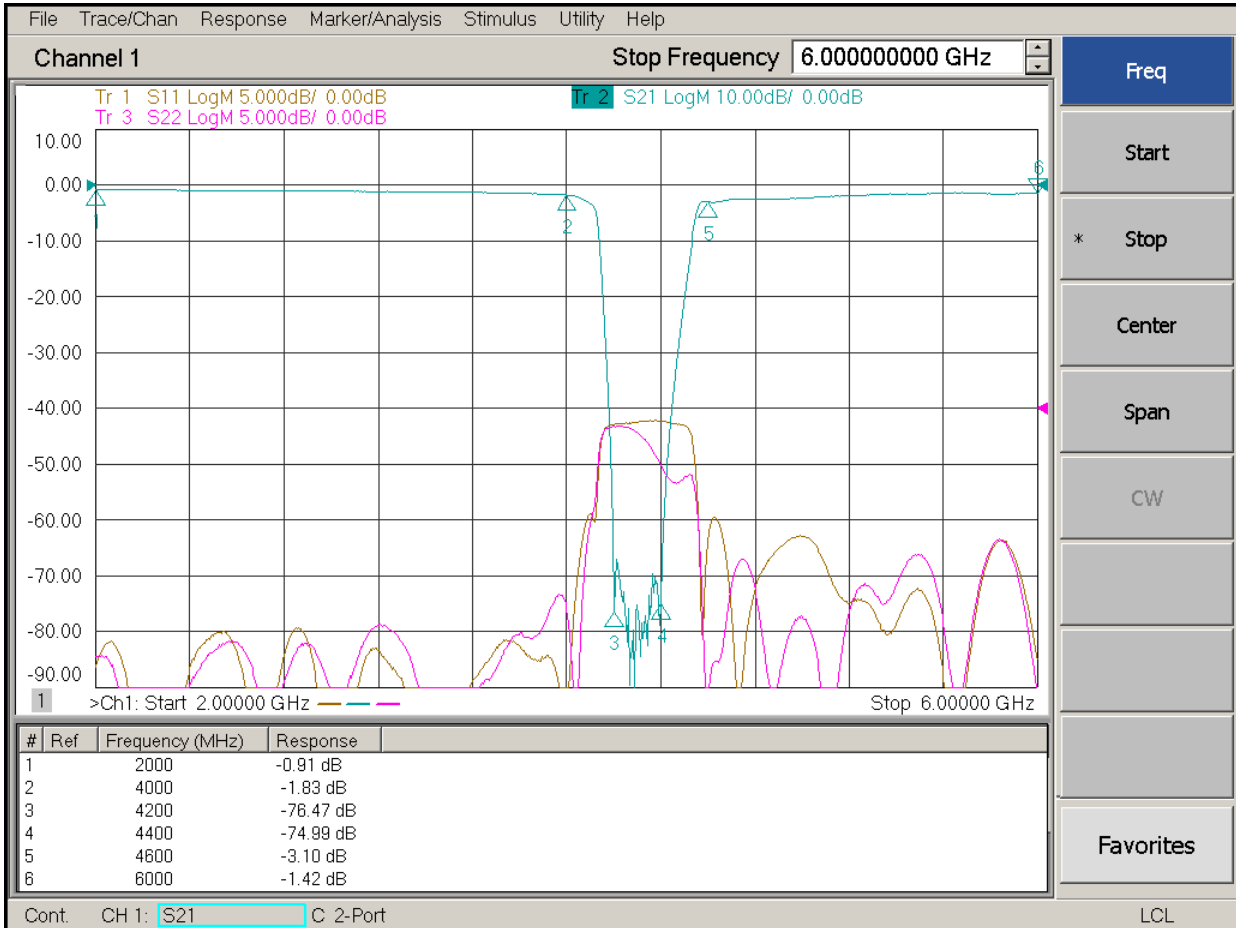




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Swept Plot – Filter Path (+28VDC Applied)

Close Up View

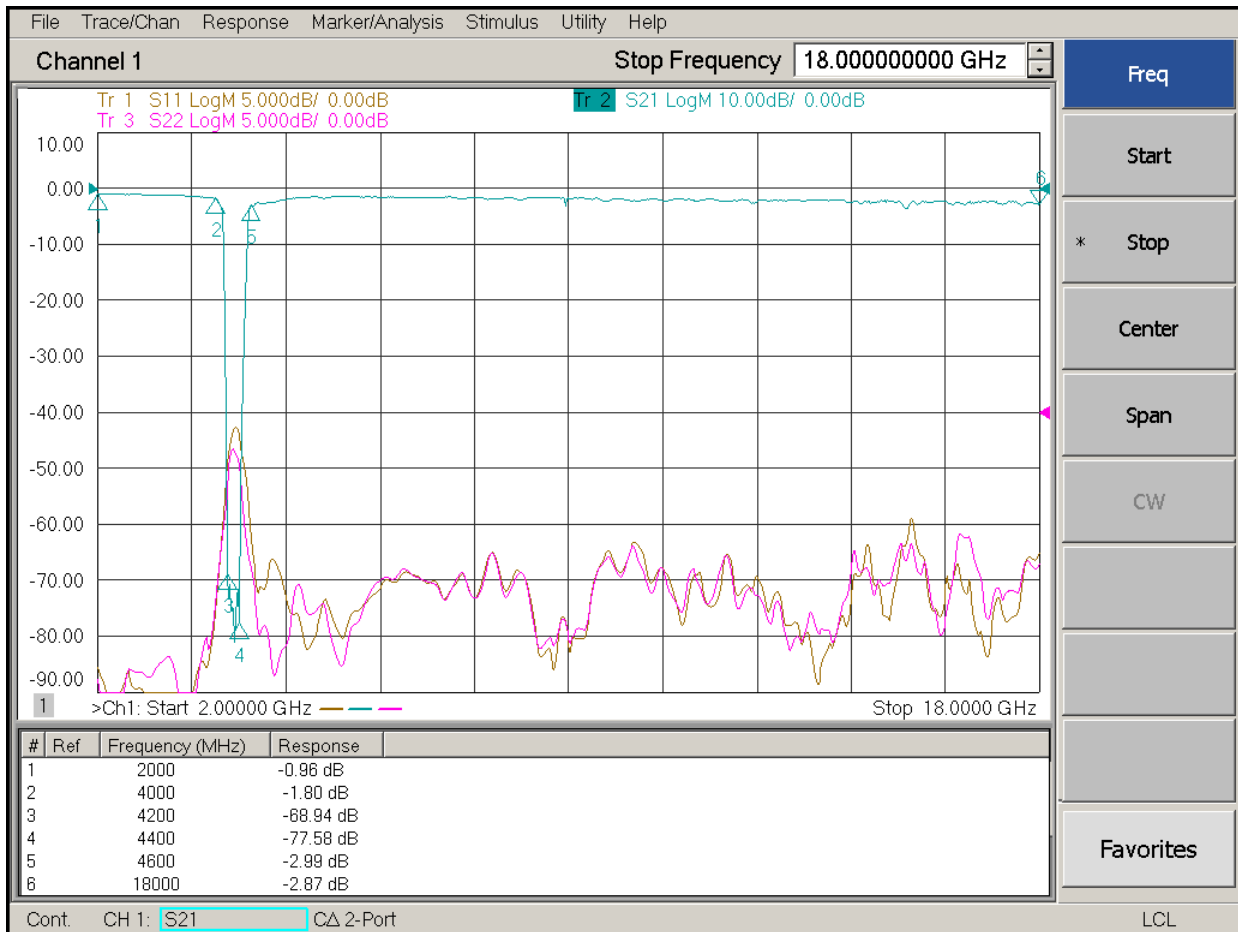




# TYPICAL CHARACTERISTICS ON PEC-218-BRF-SM-TNCF

Swept Plot – Filter Path (+28VDC Applied)

Broadband View





## TYPICAL CHARACTERISTICS ON PEC-218-BRF-SM-TNCF

### Swept Plot – Filter Path (+28VDC Applied)

#### Group Delay

