

DESCRIPTION

PMI MODEL NO: 4SFB-0R5G4R5G-SFF IS A 4-CHANNEL SWITCHED FILTER BANK THAT OPERATES OVER THE FREQUENCY RANGE OF 0.5 TO 4.5 GHz. IT HAS A MAXIMUM INSERTION LOSS OF 5.0 dB AND A MINIMUM ISOLATION OF 60 dB. THIS MODEL IS OUTFITTED WITH SMA FEMALE CONNECTORS.

SPECIFICATIONS

- FREQUENCY: ----- 0.5 TO 4.5 GHz
- INSERTION LOSS: ----- 5.0 dB MAX
- VSWR: ----- 1.8:1 MAX
- ISOLATION: ----- 60 dB MIN
- INPUT POWER: ----- 1 WATT MAX (CW)
50 WATT MAX (PEAK)
- OUTPUT LEVEL: ----- 20 dBm MAX (CW)
24 dBm MAX (PEAK)
- CONTROL: ----- TTL, "0" = ON, "1" = OFF
- POWER SUPPLY: ----- +5 V (+/- 1V) @ 100 mA TYP
-12 V (+/- 1V) @ 50 mA TYP
- IMPEDANCE: ----- 50 OHMS
- CONNECTORS: ----- SMA FEMALE
- REJECTION: ----- 50 dB
- P1dB: ----- +20 dBm
- SPEED: ----- 100ns MAX

Command table	Pin 'A'	Pin 'B'	Pin 'C'	Pin 'D'	Notes
Filter A	1	0	0	0	TTL levels
Filter B	0	1	0	0	TTL levels
Filter C	0	0	1	0	TTL levels
Filter D	0	0	0	1	TTL levels

Filters bands	F1	F2	F3	Notes
Filter A	0.43	0.5	2	GHz
Filter B	0.6	0.7	4.2	GHz
Filter C	1.25	1.5	4.5	GHz
Filter D	3.25	3.8	4.5	GHz

Requirements for each band	Units	Minimum	Maximum	Typical	Notes
Insertion loss (-N1)	dB		4.5		at 25°C
Insertion loss	dB		5		Over temperature range
Ripple	dBpp		1		
Rejection (N2)	dB	50			
Isolation between filters	dB	60			

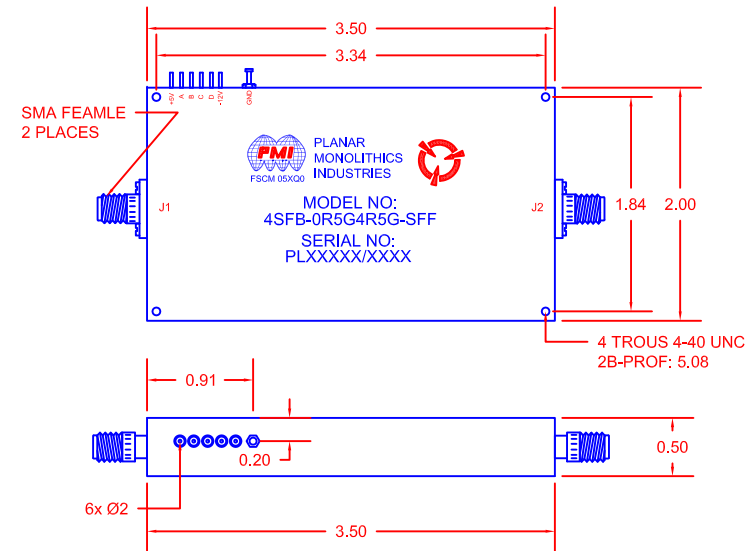
NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

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REVISIONS

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	-	PRELIMINARY	6/7/23	
	1	SUPPLY VOLTAGES UPDATED	9/1/23	

MECHANICAL OUTLINE



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

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ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE		
DRAWN <i>AG</i>		6/7/23	PRODUCT FEATURE 4SFB-0R5G4R5G-SFF		
REDRAWN			SIZE A	FSCM NO. 05XQ0	DWG NO. PRELIMINARY
ISSUED			SCALE N:S	SHEET 1 OF 2	REV. -

Description of the port	Marking name
Input	J1
Output	J2
Positive supply voltage	+5V
Negative supply voltage	-12V
Reference voltage (ground) Connected to the mechanical case	GND
Switching Command	A
Switching Command	B
Switching Command	C
Switching Command	D

Operating Temperature	-40 / +85°C	
Storage Temperature	-55 / +110°C	
Minimum Pressure in operation	11 mbars	
Normal Maximum Pressure in operation	1.013 bars	
Exceptional Maximum Pressure in operation	1.65 bars	
Minimum Pressure in storage	11 mbars	
Maximum Pressure in storage	1.013 bars	
Life test in operation	1000 h at +80°C	
Sinusoidal Vibrations	5 to 32 Hz, 5 mm - 32 to 2000 Hz, 20 G	MIL STD 202F, method 204D, test condition D 4 hours per direction
Random Vibrations	2 to 2000 Hz: 0,02 G ² /Hz	MIL STD 202F, method 214, test condition D 4 hours per direction
Constant Acceleration in operation	10 G	MIL STD 202F, method 212A, test condition B
Constant Acceleration in storage	15 G	MIL STD 202F, method 212A, test condition B
Mechanical shocks	30 G - 9 ms – ½ sinus	MIL STD 202 F - Method 213 B 3 impacts per direction (18 impacts)
Rapid Temperature Variation	-55°C/+110°C	MIL STD 202F method 107F, Exposure time 30min at each level, 1000 cycles
Rapid Pressure Variation	1000 -> 10 mbars in 3 minutes	MIL STD 202F, method 105C 1000 cycles
Humidity	56 days	MIL STD 202F, method 103B, continuously, test condition D
Salt Weather	96 hours	MIL STD 202F, method 101 D, test condition A

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	-	PRELIMINARY	6/7/23	

Housing	Hermetically sealed
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MIL STD 202F, method 112E, test condition A

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APPROVALS		DATE	TITLE				REV.
DRAWN	<i>AF</i>	6/7/23	PRODUCT FEATURE 4SFB-0R5G4R5G-SFF				-
REDRAWN			SIZE	FSCM NO.	DWG NO.		
ISSUED			A	05XQ0	PRELIMINARY		
			SCALE	N:S	SHEET	2 OF 2	