

DESCRIPTION:

PMI MODEL 4SFB-2G6G-BR-SFF IS A FOUR INDEPENDENT CHANNEL SWITCHED NOTCH FILTER BANK WITH EACH CHANNEL CONTAINING A BAND STOP FILTER AND SWITCHED RF BYPASS. OVERALL PASSBAND IS 2.0 TO 6.0 GHz. THE FOUR FILTERS ARE IDENTICAL AND ARE GANG SWITCHED BY A SINGLE CONTROL LINE. THE MAXIMUM INPUT POWER IS +24 dBm AND THE INPUT P1dB POINT IS +18 dBm.

SPECIFICATIONS:

- FREQUENCY RANGE: 2000 MHz TO 6000 MHz
- INSERTION LOSS (BYPASS): 1.0 dB MIN, 3.0 dB MAX, 1.5 dB PK-PK
- SWITCHING TRANSIENTS: <-60 dBm ABOVE 2.0 GHz INTO BROADBAND DETECTOR WITH 20 MHz VIDEO BANDWIDTH
- VSWR: 2.0:1 MAX (BYPASS); 2.0-5.1 GHz, 2:1 MAX, 5.1-6.0 GHz N/A (FILTER ENABLED)
- IMPEDANCE: 50 OHMS
- SWITCHING SPEED FROM 50% CTRL: 100 nsec MAX TO WITHIN 0.5 dB OF FINAL AMPLITUDE VALUE
100 nsec MAX TO WITHIN 5° FINAL PHASE VALUE
- INPUT IP3: +28 dBm MIN
- INPUT P-1: +18 dBm MIN
- MAX INPUT POWER: +24 dBm NO DAMAGE
- CHANNEL - CHANNEL ISOLATION: 60 dB MIN
- SPURIOUS OUTPUTS: -80 dBm MAX NOT INCLUDING SWITCHING TRANSIENTS
- CONTROL: LSTTL, 1 LINE (SEE TABLE FOR A0 PIN OUTS)
LOGIC 0: 0.8 V MAX, -0.4 mA MAX
LOGIC 1: 2.0 V MIN, 20 uA MAX
OPEN CIRCUIT: GUARANTEED LOGIC 1
- POWER SUPPLY: +12VDC (+11.4 TO +14.0V); 400mA max.
-12VDC (-11.4 TO -14.0V); 200mA max.
- CONNECTOR: RF - SMA FEMALE (REMOVABLE)
CONTROL - M83513/02-BN 15 SOCKET MICRO-D WITH 2-56 JACK POSTS
- SIZE: 4.5" (L) X 3.6" (W) X 1.0" (H)
- FINISH: BLUE EPOXY POLIMIDE COATING IAW MIL-C-22750 TYPE 1 OVER EPOXY POLIMIDE PRIMER IAW MIL-P-23377 TYPE 1, CLASS 1 OR 3
- WEIGHT: 16 oz MAX
- SEALING: HERMETIC
- MTBF: >150,000 HOURS CALCULATED IAW MIL-HDBK-271 FOR NAVAL SHELTERED AT 50° C

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ± 0.020
X.XXX ± 0.010

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
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FILTER LOSS CHARACTERISTICS			
PARAMETER	2.0 TO 4.9 GHz	2.0 TO 5.1 GHz	5.3 TO 6.0 GHz
INSERTION LOSS	1 dB MIN, 3 dB MAX	4 dB MAX	70 dB MIN
FLATNESS	1 dB PK-PK	N/A	N/A

PHASE DIFFERENCE (FILTER BYPASSED/FILTER ENABLED)			
PARAMETER	2.0 TO 4.6 GHz	4.6 TO 5.1 GHz	5.1 TO 6.0 GHz
PHASE DIFFERENCE	5° MAX	8° MAX	N/A

CTRL A0	FILTER PATH
0	FILTERS ENABLED
1	FILTERS BYPASSED

PLANAR MONOLITHICS INDUSTRIES, INC.

4921 ROBERT J. MATHEWS PKWY #1
EL DORADO HILLS CA 95762
TEL: 916-542-1401 FAX: 916-265-2597
WEBSITE: www.pmi-rf.com
E-MAIL: sales@pmi-rf.com
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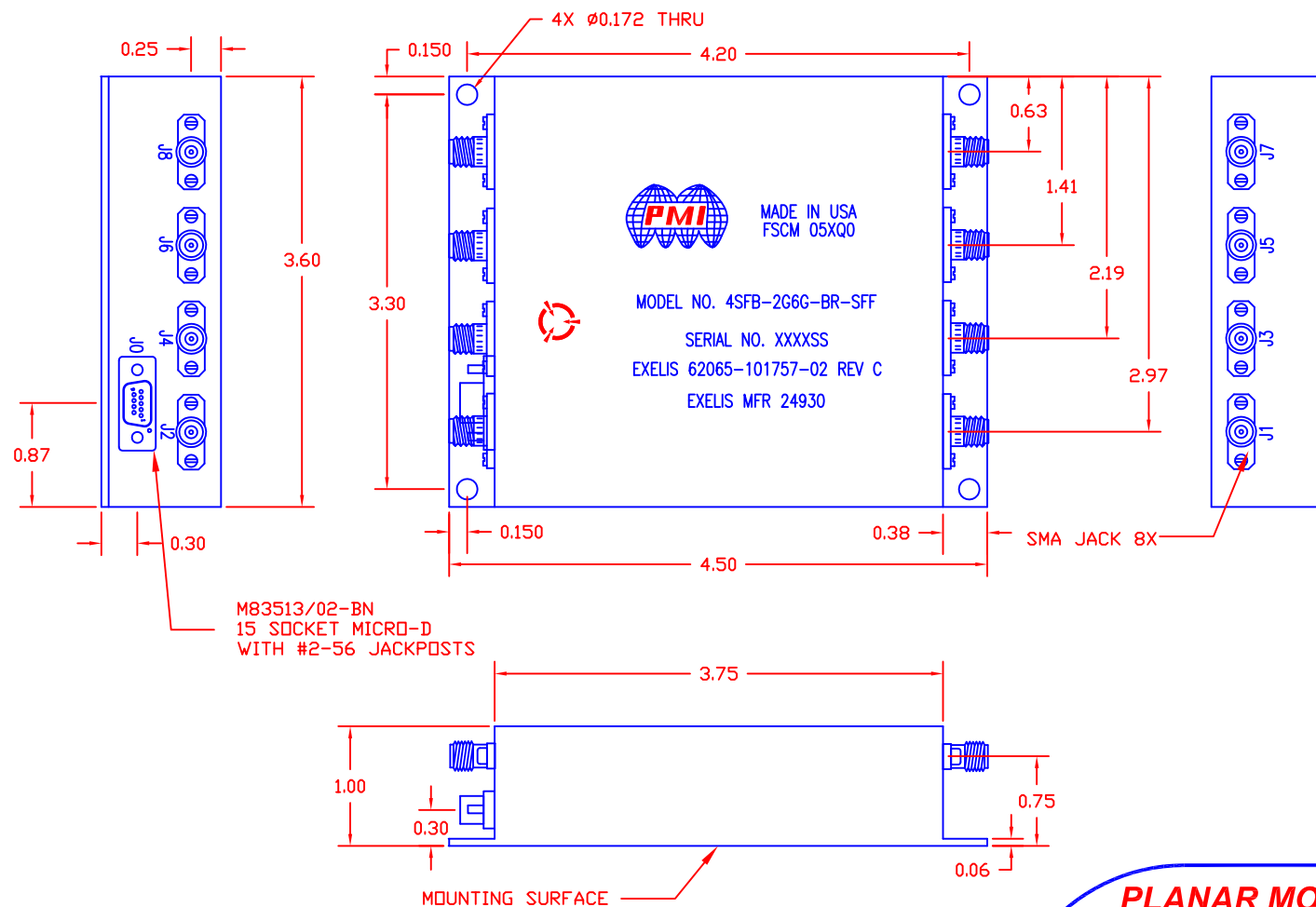


APPROVALS		DATE	TITLE			
DRAWN		3-5-15	PRODUCT FEATURE 4SFB-2G6G-BR-SFF			
CHECKED			SIZE	FSCM NO.	DWG NO.	REV.
ISSUED			A	71A34	PRELIMINARY	—
			SCALE N: S		SHEET 1 OF 4	

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J0 PIN OUT	
PIN	FUNCTION
1	SHIELD GND
2	A1 SPARE
3	A3 SPARE
4	N/C
5	+12VDC
6	+12VDC RTN
7	-12VDC
8	-12VDC RTN
9	A0
10	A2 SPARE
11	N/C
12	+12VDC
13	+12VDC RTN
14	-12VDC
15	-12VDC RTN

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ENVIRONMENTAL RATINGS:

- TEMPERATURE: · · · · · -30°C TO +75°C (OPERATING) PER MIL-STD-810, METHOD 502.4, PROCEDURE II FOR LOW TEMPERATURE, 501.4 PROCEDURE II FOR HIGH TEMPERATURE
-54°C TO +85°C (STORAGE) PER MIL-STD-810, METHOD 502.4 PROCEDURE I FOR LOW TEMPERATURE AND 501.4, PROCEDURE I FOR HIGH TEMPERATURE
- HUMIDITY: · · · · · MIL-STD-810, METHOD 507.4 TO 100% R.H., +30 TO +60° C WITH CONDENSATION PER METHOD 507.4, 5 CYCLES
- SHOCK: · · · · · THE UNIT SHALL PROVIDE SPECIFIED OPERATIONAL PERFORMANCE AFTER BEING SUBJECTED TO SHOCK LEVEL OF 80G, 10ms IN OPERATING OR NON-OPERATING
CONDITION WHEN TESTED IN ACCORDANCE WITH MIL-S-901D, GRADE A
- VIBRATION: · · · · · RANDOM - 0.30 G²/Hz FROM 15 Hz TO 2000 Hz, DECREASING AT 6 dB PER OCTAVE STARTING AT 66 Hz PER MIL-STD-810, METHOD 514.5, TABLE II AND FIGURE 9
AND 516.5, TABLE 1

SINUSOIDAL - 0.2" DOUBLE AMPLITUDE FROM 5-14 Hz, 2G FROM 14 TO 33 Hz
- ALTITUDE: · · · · · MIL-STD-810, METHOD 500.4 PROCEDURE 1, SEA LEVEL TO 11,000 FEET (OPERATING) AND SEA LEVEL TO 36,000 FEET (NON-OPERATING)
- EXPLOSIVE ATMOSPHERE: · MIL-STD-810, METHOD 511.4 PROC. 1, OPERATE WITHOUT IGNITING THE EXPLOSIVE ENVIRONMENT
- FUNGUS : · · · · · NO FUNGUS NUTRIENT MATERIALS TO BE USED IN THE DESIGN
- SALT FOG: · · · · · MIL-STD-810, METHOD 509.4, 96 HOUR EXPOSURE

RFI/EMI SPECIFICATIONS:

- LEAKAGE: · · · · · WITH +10 dBm RF INPUT AND OUTPUTS TERMINATED INTO 50 OHMS, RF LEAKAGE SHALL NOT EXCEED -60 dBm
- DETECTION: · · · · · LEAKAGE SHALL BE TESTED PER EXELIS PROCEDURE 126012

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N: S

SHEET

3 OF 4

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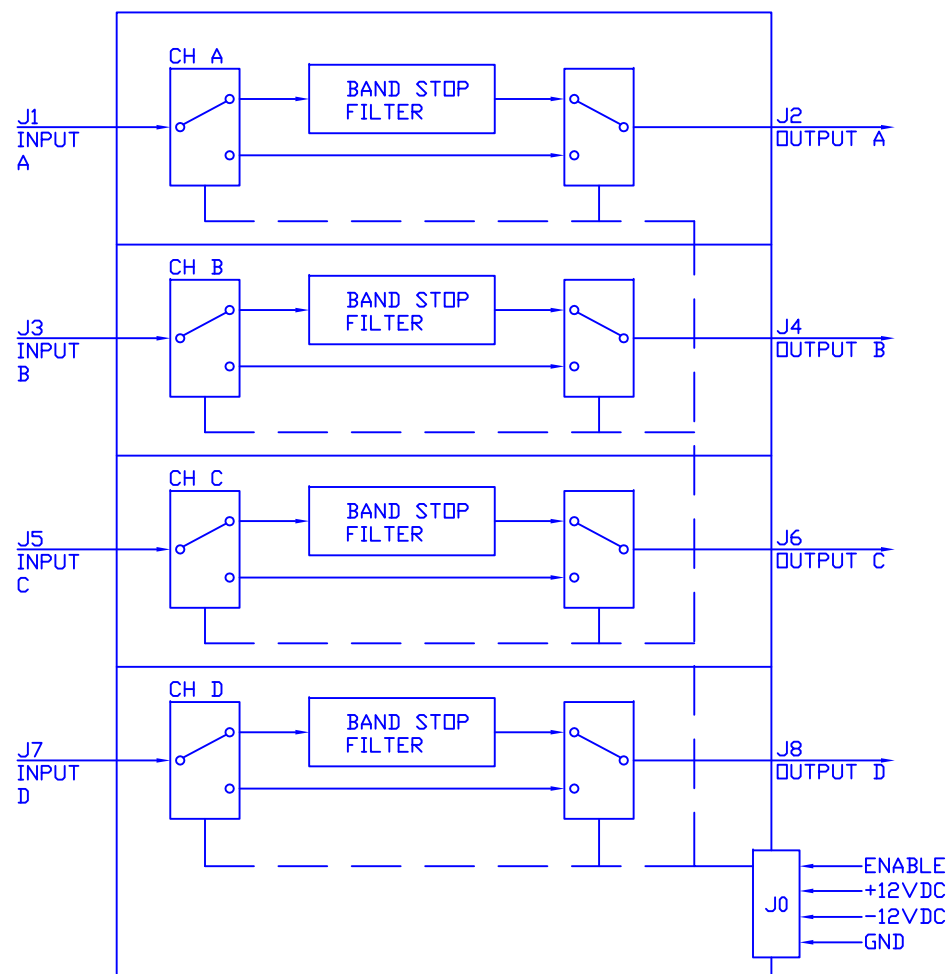
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BLOCK DIAGRAM



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