

## DESCRIPTION

PMI MODEL: 6SFB-1G20G-LP-AMP-SFF-MS IS A SIX CHANNEL SWITCH FILTER BANK (SFB) FOLLOW BY AN AMPLIFIER THAT OPERATES OVER THE 1.0 GHz TO 20.0 GHz FREQUENCY RANGE. THIS MODEL OFFERS FAST SWITCHING SPEEDS OF 200 ns WHILE MAINTAINING A GAIN OF 20 dB AND 10dBm P1dB.

## SPECIFICATIONS

- FREQUENCY RANGE: ----- 1.0 GHz TO 20.0 GHz
- GAIN: ----- 20 dB MINIMUM, 25 dB TYPICAL
- VSWR: ----- 2.0:1 MAXIMUM
- OUTPUT 2ND HARMONIC:----- 45dBc @ 0dBm Output Power (Filter passband must be selected for maximum harmonic attenuation. Thru path 2nd harmonic value 15dBc Typ.)
- SWITCHING SPEED: ----- 200 ns TYPICAL (FROM 50% TTL TO 90%/10% RF)
- POWER HANDLING: ----- +15 dBm MAXIMUM **\*\*DO NOT HOT SWITCH\*\***
- OUTPUT P1dB: ----- +10 dBm MINIMUM
- LOGIC INPUT: ----- TTL COMPATIBLE, 3 BITS DECODED  
TTL HIGH = 2 V MINIMUM  
TTL LOW = 0.8 V MAXIMUM
- POWER SUPPLY: ----- +15 VDC ±5% @ 700 mA MAXIMUM  
-15 VDC ±5% @ 100 mA MAXIMUM
- CONNECTORS: ----- RF: (J1, J2) SMA FEMALE (REMOVABLE) IAW MIL-STD-202  
J3 - CONTROL & POWER: D-SUB, DB9 CONNECTOR
- SIZE: ----- 5.50" x 3.00" x 0.67" MAXIMUM  
139.70 mm x 76.20 mm x 17.02 mm MAXIMUM
- FINISH: ----- PAINTED BLUE, MOUNTING SURFACE FREE OF PAINT

### FILTER CHARACTERISTICS

PARAMETER	FILTER 1	FILTER 2	FILTER 3	FILTER 4	FILTER 5	THRU
PASSBAND, MINIMUM	1GHz - 1.25 GHz	1.25 - 2.0 GHz	2 - 3.5 GHz	3.5 - 6.0 GHz	6.0 - 10.0 GHz	1 - 20.0 GHz
GAIN, MINIMUM	20dB	20dB	20dB	20dB	20dB	20dB
REJECTION OF 50dBc TYP.	2.0 - 2.5 GHz	2.5 - 4.0 GHz	4.0 - 7.0 GHz	7.0 - 12.0 GHz	12.0 - 20 GHz	N/A

### LOGIC TABLE

PIN	L3	L2	L1
FILTER 1	0	0	1
FILTER 2	0	1	0
FILTER 3	0	1	1
FILTER 4	1	0	0
FILTER 5	1	0	1
THRU	1	1	0

## ENVIRONMENTAL RATINGS

- TEMPERATURE: ----- +10 °C TO +55 °C BASE PLATE (OPERATING)  
-10 °C TO +85 °C (STORAGE)
- 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 1: THE SFB IS DESIGNED TO MEET ALL STATED ENVIRONMENTAL SPECIFICATIONS.

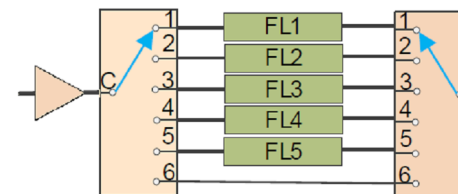
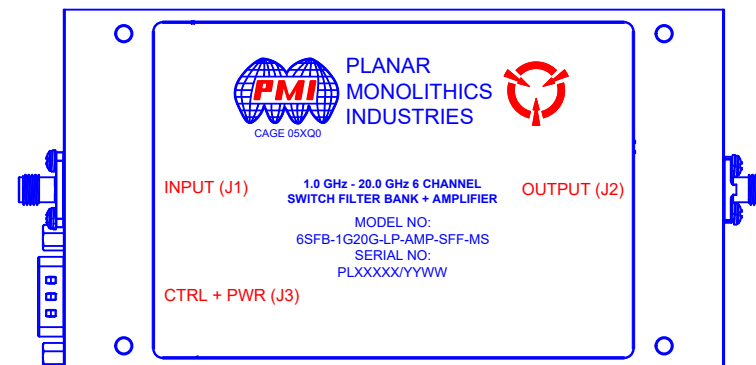
NOTE 2: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

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

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REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	11/09/20	

## MECHANICAL OUTLINE



J3 CONNECTOR	
PIN	FUNCTION
1	L1
2	L2
3	L3
4	N/C
5	N/C
6	+15 VDC
7	GND
8	GND
9	-15 VDC

## PLANAR MONOLITHICS INDUSTRIES, INC.

7311-F GROVE ROAD

FREDERICK, MARYLAND 21704 USA

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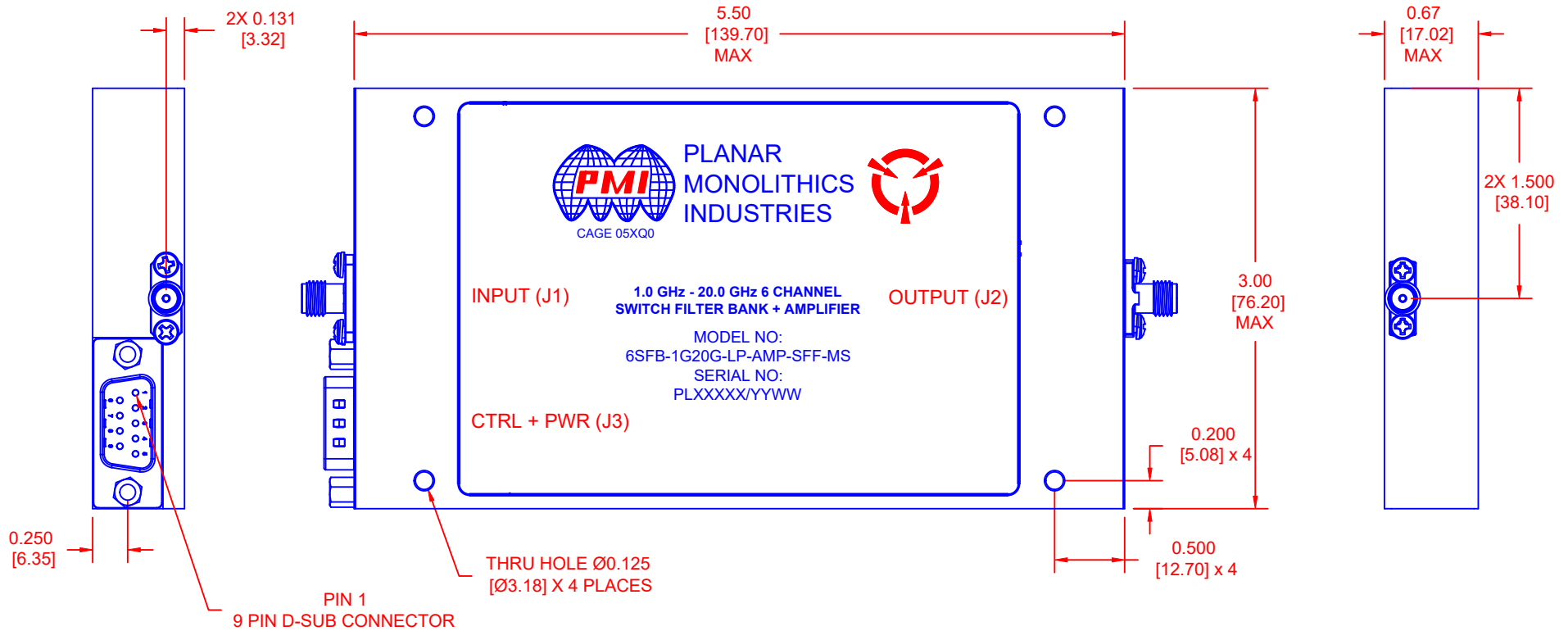
WEB: www.pmi-rf.com, EMAIL: sales@pmi-rf.com

ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE		REV.
DRAWN CFE		11/05/20	PRODUCT FEATURE 6SFB-1G20G-LP-AMP-SFF-MS 1 GHz to 20 GHz 6 Channel Switch Filter Bank + Amplifier		A1
REDRAWN			SIZE A	FSCM NO. 05XQ0	DWG NO. 27040280
ISSUED			SCALE N:S		SHEET 1 OF 2

# MECHANICAL OUTLINE



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APPROVALS		DATE		TITLE			
DRAWN		11/05/20		PRODUCT FEATURE			
CFE				6SFB-1G20G-LP-AMP-SFF-MS			
REDRAWN				1 GHz to 20 GHz 6 Channel Switch Filter Bank + Amplifier			
ISSUED				SIZE	FSCM NO.	DWG NO.	REV.
				A	05XQ0	27040280	A1
				SCALE	N:S	SHEET	2 OF 2