

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	12/22/14	
	B1	ECN# 15-0015	2/11/15	

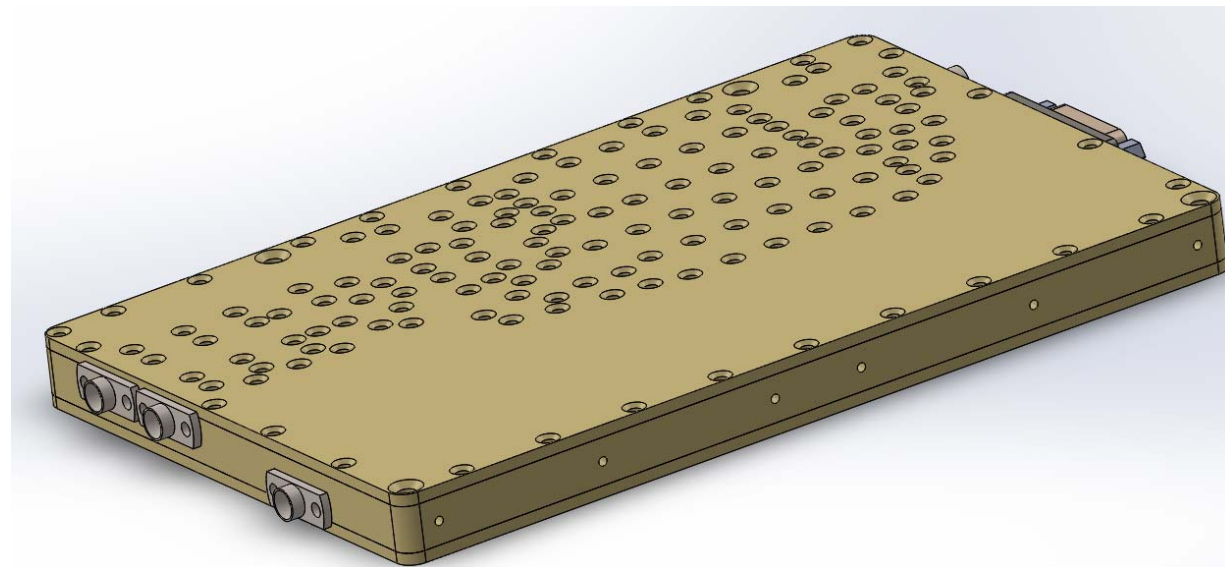
DESCRIPTION:

PMI MODEL NUMBER 6SFB-CC-100M18G-MAH-RX-TX IS AN INTEGRATED MODULE CONTAINING TWO 6-CHANNEL SWITCHED FILTER BANKS COVERING 100 MHz TO 18 GHz. A RECEIVE SWITCHED FILTER BANK HAS 2 INPUTS, ONE WITH 18 dB GAIN AND ONE WITH 10 dB INSERTION LOSS. THE ABSORPTIVE INPUT SWITCH HAS 100 dB ISOLATION BETWEEN THE 2 INPUTS. A TRANSMIT SWITCHED FILTER BANK HAS 32 dB TYPICAL GAIN WHILE ALLOWING 1 OF 6 FILTER PATHS TO BE CHOSEN. BOTH FILTER BANKS CAN BE USED SIMULTANEOUSLY IN DIFFERENT BANDS. THE UNIT MEASURES ONLY 4.80" X 3.08" X 0.365".

SPECIFICATIONS:

- **INPUTS:** J1, J5, J7
- **J1 INPUT:** RF RECEIVE INPUT
FREQUENCY: 100 MHz TO 18.0 GHz
POWER LEVEL: -80 dBm TO -10 dBm
- **J5 INPUT:** RF TRANSMIT INPUT
FREQUENCY: 100 MHz TO 18.0 GHz
POWER LEVEL: -15 dBm TO -20 dBm TYPICAL
- **J7 INPUT:** RF BUILT-IN-TEST (BIT) RECEIVE INPUT
FREQUENCY: 100 MHz TO 18.0 GHz
POWER LEVEL: -15 dBm TO -20 dBm TYPICAL
- **OUTPUTS:** J2, J6
- **J2 OUTPUT:** RF RECEIVE OUTPUT
FREQUENCY: 100 MHz TO 18.0 GHz
POWER LEVEL: -62 dBm TO +8 dBm TYPICAL
- **J6 OUTPUT:** RF TRANSMIT OUTPUT
FREQUENCY: 100 MHz TO 18.0 GHz
POWER LEVEL: 0 dBm TO +10 dBm TYPICAL

- **CONTROL LOGIC:** TTL ('0': 0 - 0.8 VOLTS), ('1' 2 - 5 VOLTS)
- **TTL 1:** RECEIVE FILTER BANK INPUT SELECT
0: RX INPUT (J1)
1: RX BUILT-IN-TEST INPUT (J7)
- **TTL 2:** RECEIVE FILTER SELECT
000: THRU CHANNEL
001: CHANNEL 1
010: CHANNEL 2
011: CHANNEL 3
100: CHANNEL 4
101: CHANNEL 5
110: NOT DEFINED
111: NOT DEFINED
- **TTL 8:** TRANSMIT FILTER SELECT
000: THRU CHANNEL
001: CHANNEL 1
010: CHANNEL 2
011: CHANNEL 3
100: CHANNEL 4
101: CHANNEL 5
110: NOT DEFINED
111: NOT DEFINED
- **POWER SUPPLIES:**
+12V: 600 mA MAX
+5V: 550 mA MAX
+3.3V: 0 mA *NOT NEEDED
-12V: 300 mA MAX
- **SIZE:** 4.80" x 3.08" x 0.365"
- **RF CONNECTORS:** SMPM (F)
- **FINISH:** GOLD PLATED



RECEIVE SWITCHED FILTER BANK:

- J1 PATH GAIN: 18 dB TYPICAL
- J7 PATH INSERTION LOSS: 10 dB TYPICAL
- ISOLATION: J1, J7 100 dB

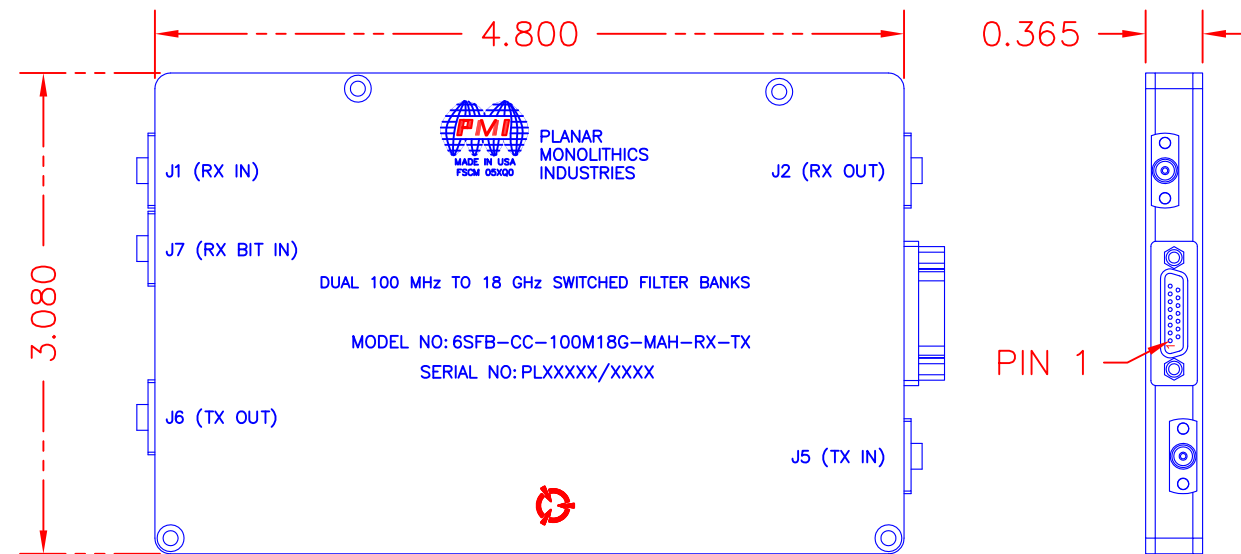
TRANSMIT SWITCHED FILTER BANK:

- GAIN: 32 dB TYPICAL

RECEIVE AND TRANSMIT SWITCHED FILTER BANKS:

- **VSWR OVER 90% PASSBAND:** 2 : 1 MAX
- **SWITCHING SPEED:** 100 ns TYPICAL
- **THRU CHANNEL PASSBAND:** 100 MHz TO 18 GHz
- **CHANNEL 1 CENTER FREQUENCY:** 3400 MHz
3 dB BANDWIDTH: 2000 MHz
REJECTION: -40 dBc TYP 100 MHz - 2 GHz, -30 dBc MIN
-40 dBc TYP 4.8 GHz - 18 GHz, -30 dBc MIN
- **CHANNEL 2 CENTER FREQUENCY:** 5400 MHz
3 dB BANDWIDTH: 2000 MHz
REJECTION: -40 dBc TYP 100 MHz - 4 GHz, -30 dBc MIN
-40 dBc TYP 6.8 GHz - 18 GHz, -30 dBc MIN
- **CHANNEL 3 CENTER FREQUENCY:** 7400 MHz
3 dB BANDWIDTH: 2000 MHz
REJECTION: -40 dBc TYP 100 MHz - 6 GHz, -30 dBc MIN
-40 dBc TYP 8.8 GHz - 18 GHz, -30 dBc MIN
- **CHANNEL 4 CENTER FREQUENCY:** 9400 MHz
3 dB BANDWIDTH: 2000 MHz
REJECTION: -40 dBc TYP 100 MHz - 8 GHz, -30 dBc MIN
-40 dBc TYP 10.8 GHz - 18 GHz, -30 dBc MIN
- **CHANNEL 5 CENTER FREQUENCY:** 11400 MHz
3 dB BANDWIDTH: 2000 MHz
REJECTION: -40 dBc TYP 100 MHz - 10 GHz, -30 dBc MIN
-40 dBc TYP 12.8 GHz - 18 GHz, -30 dBc MIN

PIN	FUNCTION
1	TTL1
2	TTL2A (LSB)
3	TTL2B
4	TTL2C
5	TTL8A (LSB)
6	TTL8B
7	TTL8C
8	GND
9	+12V
10	GND
11	+5V
12	GND
13	+3.3V
14	GND
15	-12V



PLANAR MONOLITHICS INDUSTRIES, INC.

7311-F GROVE ROAD
 FREDERICK, MARYLAND 21704 USA
 TEL: 301-662-5019 FAX: 301-662-1731
 WEBSITE: www.pmi-rf.com
 E-MAIL: sales@pmi-rf.com
 ISO 9001 CERTIFIED



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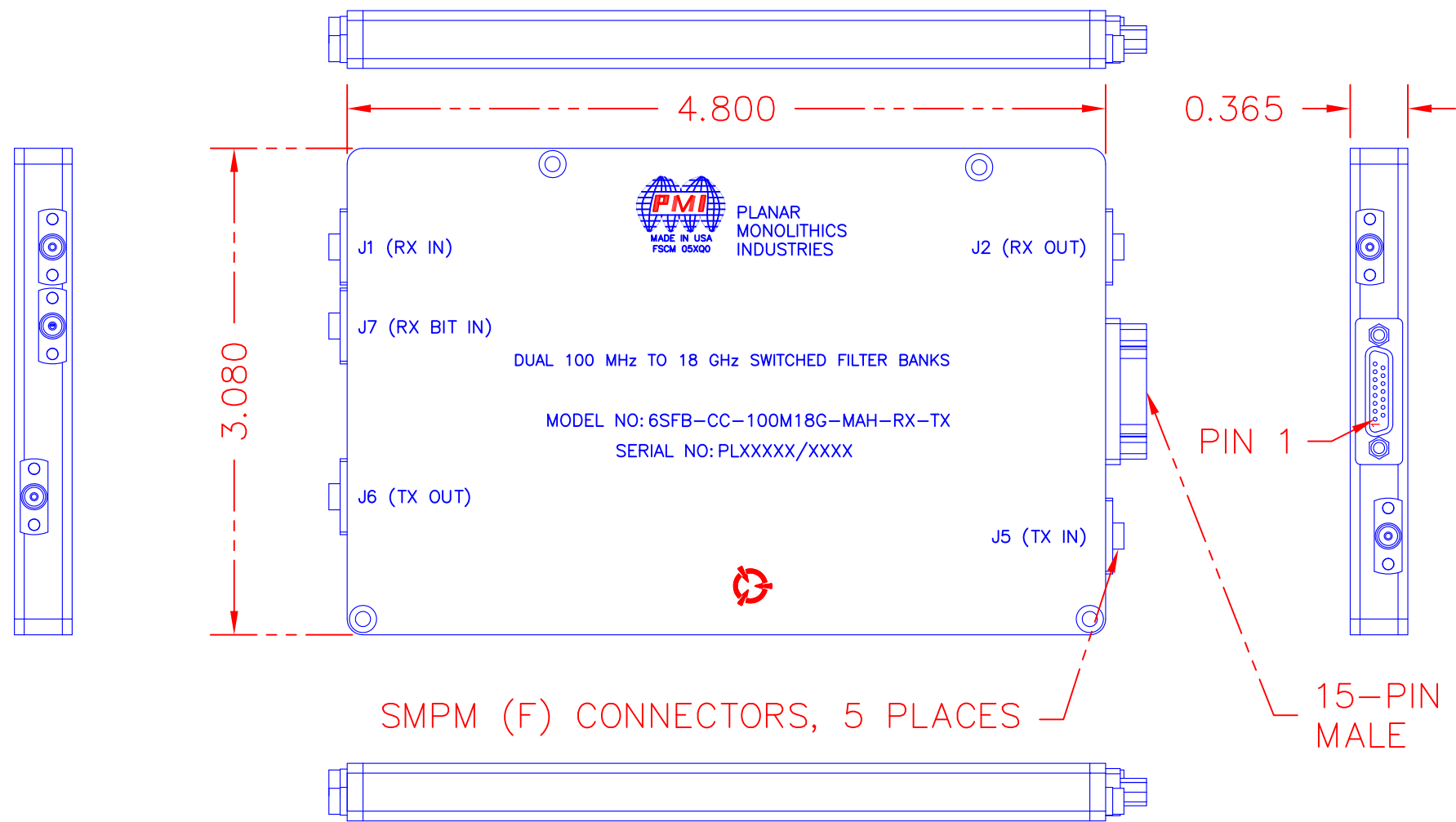
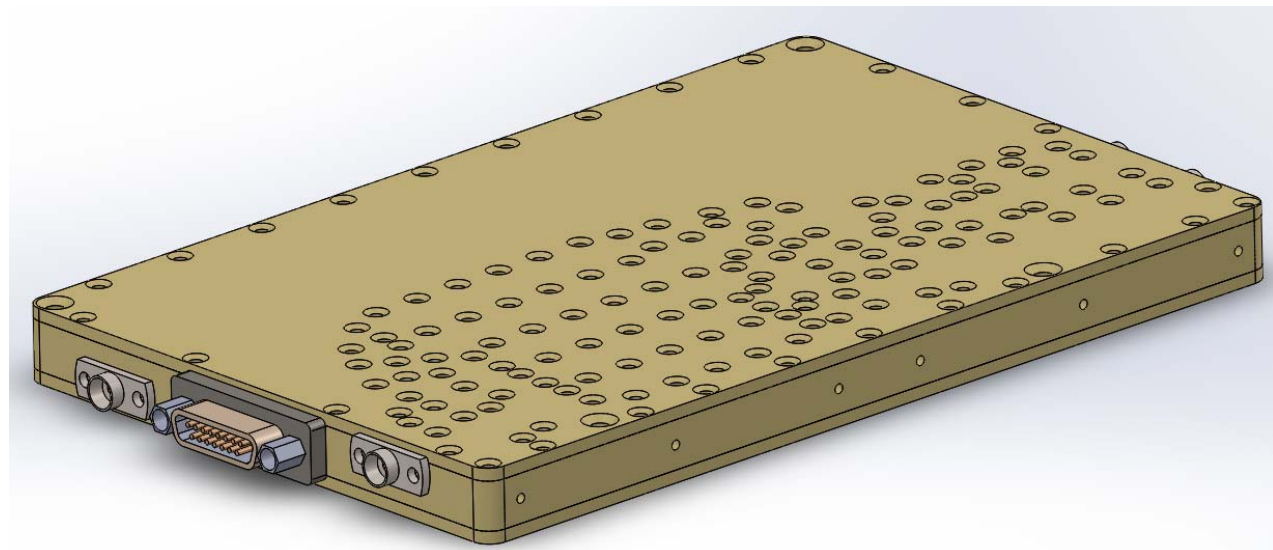
ALL DIMENSIONS ARE IN INCHES
 TOLERANCES:
 X.XX ±0.020
 X.XXX ±0.010


APPROVALS		DATE	TITLE			
DRAWN <i>DPD</i>		12/18/19	PRODUCT FEATURE 6SFB-CC-100M18G-MAH-RX-TX			
CHECKED			SIZE	FSCM NO.	DWG NO.	REV.
ISSUED			B	05XQ0	27024320	B1
			SCALE	N:S	SHEET	1 OF 3

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

MECHANICAL OUTLINE:

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	B1	ECN# 15-0015	2/11/15	




PLANAR MONOLITHICS INDUSTRIES
 MADE IN USA
 FSCM 05XQ0

DUAL 100 MHz TO 18 GHz SWITCHED FILTER BANKS
 MODEL NO: 6SFB-CC-100M18G-MAH-RX-TX
 SERIAL NO: PLXXXXX/XXXX

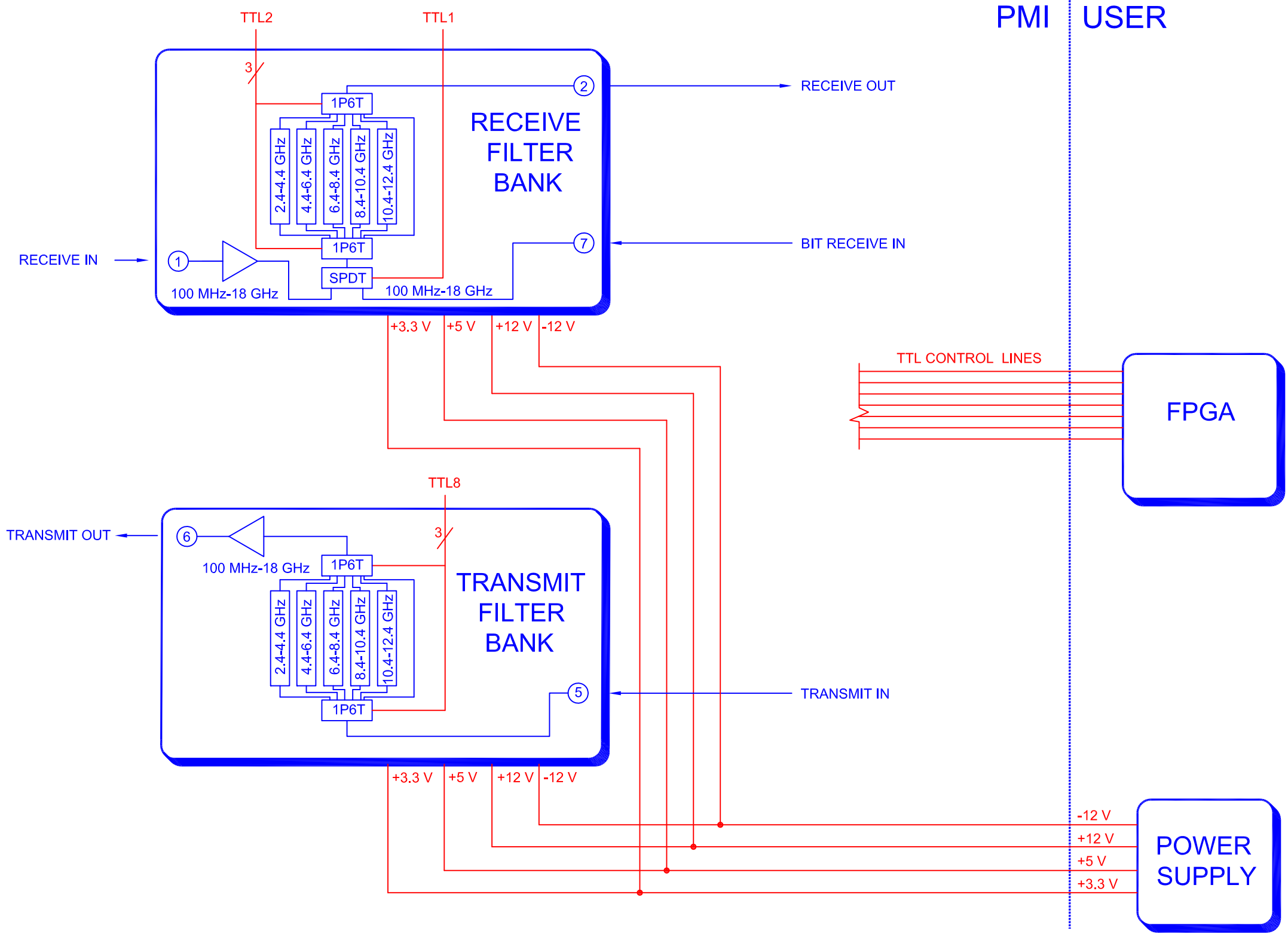
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 WEBSITE: www.pmi-rf.com
 E-MAIL: sales@pmi-rf.com
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APPROVALS		DATE	TITLE		
DRAWN <i>DPD</i>		1/2/14	PRODUCT FEATURE		
CHECKED			6SFB-CC-100M18G-MAH-RX-TX		
ISSUED			SIZE	FSCM NO.	DWG NO.
			B	05XQ0	27024320
			SCALE	N:S	SHEET 2 OF 3
					REV. B1

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BLOCK DIAGRAM:

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

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 FREDERICK, MARYLAND 21704 USA
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 WEBSITE: www.pmi-rf.com
 E-MAIL: sales@pmi-rf.com
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APPROVALS		DATE	TITLE		
DRAWN	DPD	1/2/14	PRODUCT FEATURE 6SF8-CC-100M18G-MAH-RX-TX		
CHECKED			SIZE	FSCM NO.	DWG NO.
ISSUED			B	05XQ0	27024320
			SCALE	N:S	SHEET 3 OF 3
			REV.	B1	