

DESCRIPTION:

PMI MODEL NUMBER SWPD-8-218-4D5-60-SFF IS A SWITCHED POWER DIVIDER. THIS UNIT OPERATES IN A FREQUENCY RANGE OF 2-18 GHz.

SPECIFICATIONS:

- FREQUENCY RANGE:..... 2.0 TO 18.0 GHz
- NOISE FIGURE:..... 4.5dB MAX FOR DIRECT CHANNELS
6.5dB MAX FOR SWITCHED CHANNEL
- VSWR (IN/OUT):..... 2:1 MAX
- GAIN OVER FREQUENCY..... 7±2dB DIRECT CHANNELS
4±3dB FILTERED CHANNELS
- GAIN VARIATION OVER TEMPERATURE:..... -0.04dB/°C
- GAIN MATCHING BETWEEN AVERAGE ±1dB BETWEEN THE 8 DIRECT CHANNELS
- INPUT POWER FOR 1dB CP:..... -2dBm MIN FOR DIRECT CHANNELS
-5dBm MIN FOR THE FILTERED CHANNELS
-3.5dBm MIN FOR THE SWITCHED CHANNELS
- SURVIVAL POWER:..... 0.1W CW MAX
- RF INPUT SIGNALS PULSE WIDTH..... 50ns MIN (UP TO CW)
- SP8T CHARACTERISTICS
- SWITCH ISOLATION:..... 60dB MIN
- SWITCHING TIME:..... 200ns MAX
- SWITCH FILTER CHARACTERISTICS
- SWITCH ISOLATION:..... 50dB MIN
- SWITCH TIME:..... 200ns MAX
- FILTER CUTOFF FREQUENCY:..... 2 GHz (HIGHPASS)
- POWER SUPPLY :..... +8 V @ 1500 mA MAX (REGULATED)
+10V @ 600 mA MAX (UNREGULATED)
-12 V @ 650 mA MAX (UNREGULATED)
- CONNECTORS:..... SMA FEMALE (FIELD REPLACEABLE)
- CONTROL CONNECTOR:..... MULTI-PIN CONNECTOR (9 PINS SOCKET)
- SEALING:..... HERMETIC
- FINISH:..... PAINTED BLUE

SP8T TRUTH TABLE

RF PATH	E3	E2	E1
J1 to J10	0	0	0
J2 to J10	0	0	1
J3 to J10	0	1	0
J4 to J10	0	1	1
J5 to J10	1	0	0
J6 to J10	1	0	1
J7 to J10	1	1	0
J8 to J10	1	1	1

SWITCH FILTER CHARACTERISTICS

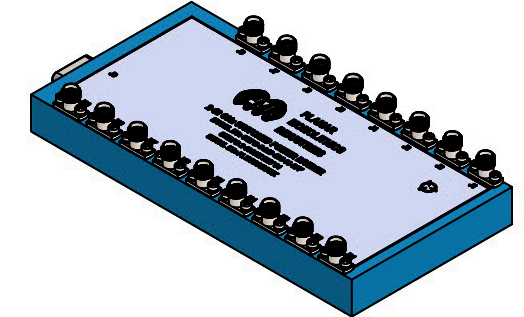
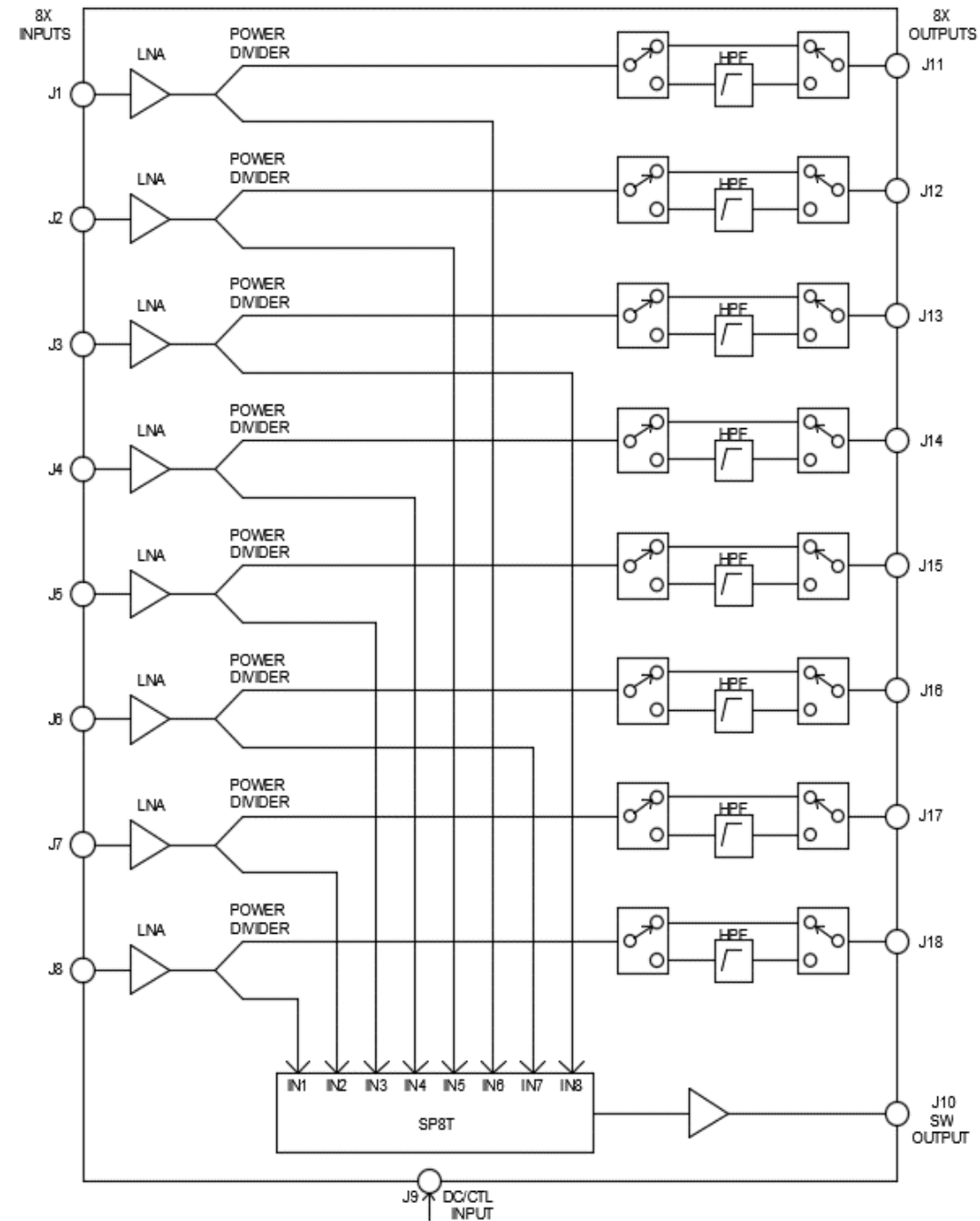
RF PATH	E4
Without Filters	0
Include Filters	1

J9 Pin-out Table

Pin	Name	Description
1	E1	BCD-1-LSB
2	E2	BCD-2
3	E3	BCD-3-MSB
4	E4	ON/OFF
5	T-GND	TTL GND
6	-10V DC	Unregulated ±2V
7	P-GND	Power GND
8	-12V DC	Negative supply
9	+8V DC	Positive supply

ENVIRONMENTAL RATINGS:

- TEMPERATURE:..... -30°C TO +80°C (OPERATING)
-30°C TO +105°C (STORAGE)
- VIBRATION:..... PER MIL-STD-167-1, Type 1, SHALL SURVIVE WITHOUT DAMAGE, RANDOM VIBRATION OF 2.5g RMS, 4-33Hz.
- FUNGUS RESISTANCE:..... PER MIL-STD-454, REQ-4.
- SHOCK:..... SHALL SURVIVE WITHOUT DAMAGE A HALF SINE WAVE SHOCK OF 200G MAX FOR 2ms 3 SHOCKS IN EACH DIRECTION
- HUMIDITY:..... OPERATING 95% RH PER MIL-STD-810C METHOD 507.1, PRO.IV.
- SALT FOG:..... PER MIL-STD-810D METHOD 509.1
- EMI/EMC:..... MIL-STD-461D, PART 6, CLASS A5, RE02, CE01 AND CE03, AND MIL-STD-462



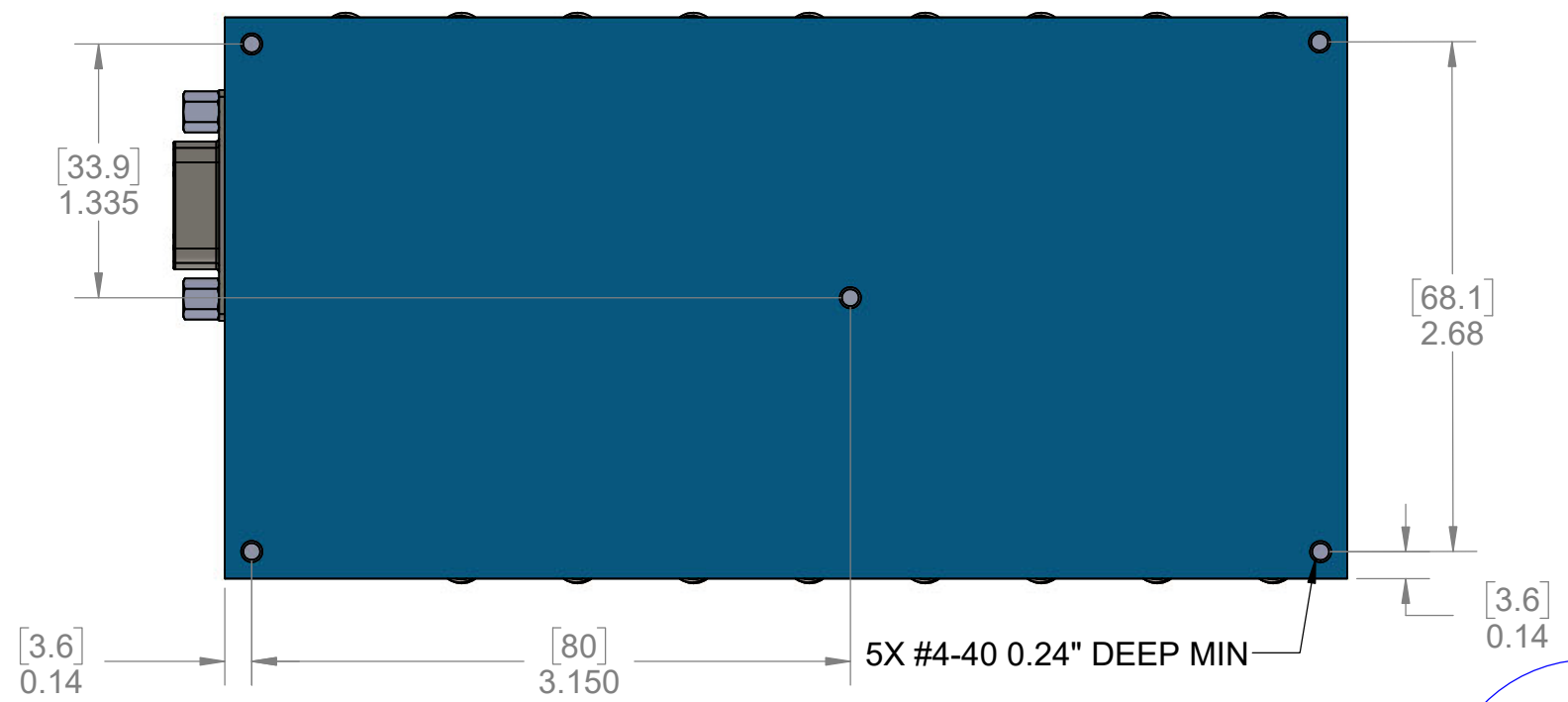
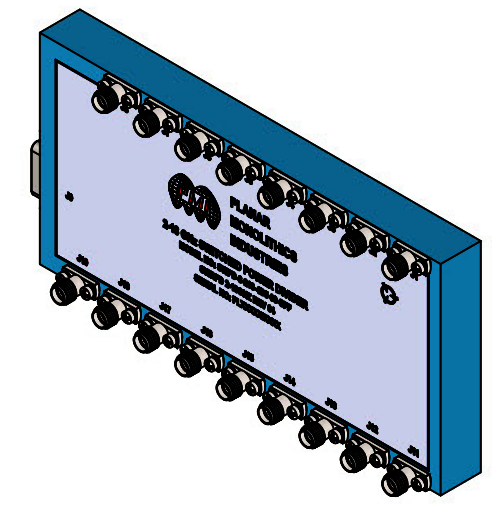
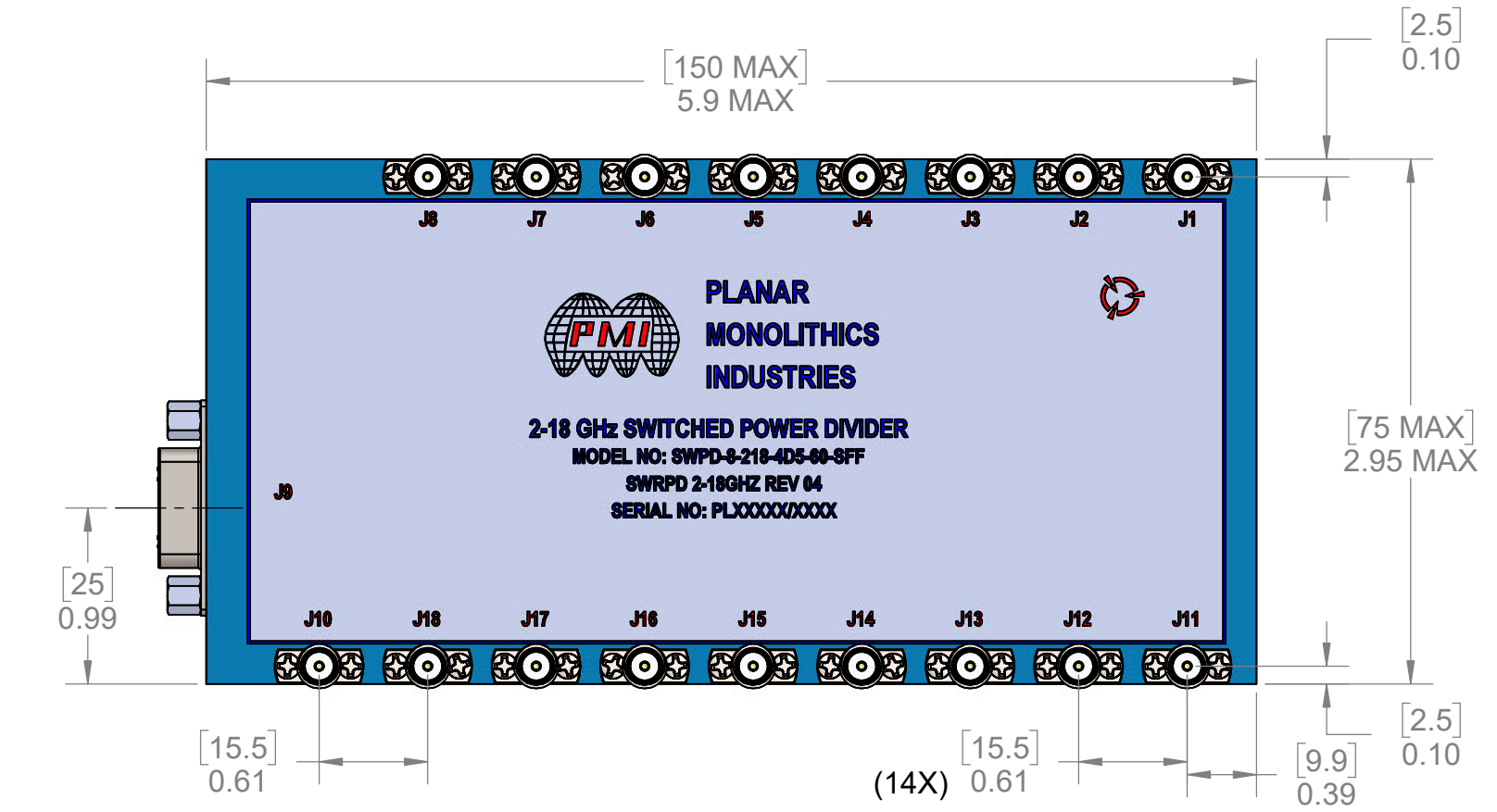
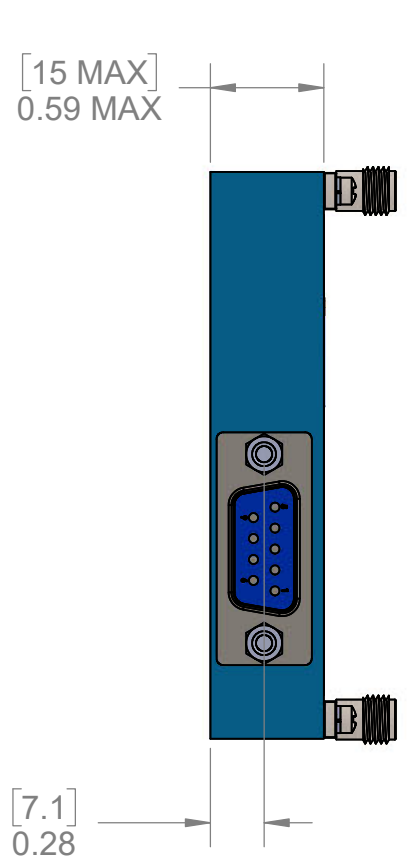
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	PRELIMINARY	3/28/2022	
	2	REPLACED AMPS WITH FILTERS	9/15/2023	

PMI CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.



APPROVALS		DATE	TITLE			
DRAWN	M. LAULIS	3/28/2022	SWITCHED POWER DIVIDER			
REDRAWN			SWPD-8-218-4D5-60-SFF			
ISSUED			SIZE	FSCM NO.	DWG NO.	REV.
			B	05XQ0	PRELIMINARY	2
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:			SCALE 1:1			
FRACTIONS .XX ± 0.02			SHEET 1 OF 2			
DECIMALS .XXX ± 0.01						
ANGLES ±						



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PLANAR MONOLITHICS INDUSTRIES, INC.



APPROVALS	DATE
DRAWN M. LAULIS	3/28/2022
REDRAWN	
ISSUED	

TITLE SWITCHED POWER DIVIDER SWPD-8-218-4D5-60-SFF			
SIZE B	FSCM NO. 05XQ0	DWG NO. PRELIMINARY	REV. 2
SCALE 1:1			SHEET 2 OF 2

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS DECIMALS ANGLES
± .XX ± 0.02 ±
.XXX ± 0.01