

DESCRIPTION

PMI MODEL: MARPS-30M6G-5U-2 IS A MULTIAGENT RADIO FREQUENCY PATH SIMULATOR CONSISTING OF AN DUAL INTEGRATED AMPLIFIED ATTENUATOR ASSEMBLY THAT OPERATE OVER THE 30 MHz TO 6.0 GHz FREQUENCY RANGE IN ORDER TO SIMULATE FIELD TESTING IN A REDUCED, CONTROLLED LAB ENVIRONMENT AND CONVENIENTLY HOUSED IN A 19" RACK - 5U.

SPECIFICATIONS

- FREQUENCY RANGE: _____ 30 MHz TO 6.0 GHz
- GAIN DL (INPUTS 1 THRU 8 TO OUTPUT 1): _____ 4 dB MINIMUM
10 dB NOMINAL
12 dB MAXIMUM
- GAIN UL (INPUTS 1 TO OUTPUT 1 THRU 8): _____ 4 dB MINIMUM
10 dB NOMINAL
12 dB MAXIMUM
- ISOLATION DL (BETWEEN OUTPUTS 1 THRU 8): _____ -29 dB MINIMUM
-36 dB NOMINAL
- ISOLATION UL (BETWEEN INPUTS 1 THRU 8): _____ -29 dB MINIMUM
-36 dB NOMINAL
- ISOLATION DL (OUTPUT 1 TO INPUTS 1 THRU 8): _____ -100 dB MINIMUM
-104 dB NOMINAL
- ISOLATION UL (INPUT 1 TO OUTPUTS 1 THRU 8): _____ -100 dB MINIMUM
-104 dB NOMINAL
- ATTENUATION RANGE (INPUTS 1 THRU 8 TO OUTPUT 1): _____ 127.5 dB
- ATTENUATION FLATNESS (INPUTS 1 THRU 8 TO OUTPUT 1): _____ ±1.0 dB @ 10 dB
±1.5 dB @ 20 dB
±3.0 dB @ 40 dB
±5.0 dB @ 60 dB
- MAXIMUM POWER RATING (INPUTS 1 THRU 10): _____ +20 dBm¹
- SWITCHING SPEED: _____ 50 μs MAXIMUM
- EXTERNAL +5 VDC SUPPLY VIA 78-PIN CONNECTORS: _____ +5 VDC / 8A

1. NOT TO EXCEED +10 dBm FOR LONGER THAN 5 MINUTES

ENVIRONMENTAL RATINGS

- TEMPERATURE: _____ 0 °C TO +75 °C (OPERATING)
-50 °C TO +100 °C (STORAGE)
- HUMIDITY: _____ MIL-STD-202F, METHOD 103B COND. B
- SHOCK: _____ MIL-STD-202F, METHOD 213B COND. B
- VIBRATION: _____ MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE: _____ MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE: _____ MIL-STD-202F, METHOD 107D COND. A

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

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

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REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	-	PRELIMINARY	9/27/19	
	1	MODEL & MECHANICAL UPDATE	1/8/21	

ATTENUATOR CONTROL LINES

PATH	ATTENUATOR	LSB	MSB	CLOCK
1	1	ATTN0A	ATTN7A	1
1	2	ATTN8A	ATTN15A	1
2	1	ATTN16A	ATTN23A	1
2	2	ATTN24A	ATTN31A	1
3	1	ATTN32A	ATTN39A	2
3	2	ATTN40A	ATTN47A	2
4	1	ATTN48A	ATTN55A	2
4	2	ATTN56A	ATTN63A	2
5	1	ATTN0B	ATTN7B	3
5	2	ATTN8B	ATTN15B	3
6	1	ATTN16B	ATTN23B	3
6	2	ATTN24B	ATTN31B	3
7	1	ATTN32B	ATTN39B	4
7	2	ATTN40B	ATTN47B	4
8	1	ATTN48B	ATTN55B	4
8	2	ATTN56B	ATTN63B	4

CLOCK PIN OUT

PIN NUMBER	SIGNAL NAME
1	CLOCK1Y
2	CLOCK2Y
3	GROUND
4	CLOCK3Y
5	CLOCK4Y
6	CLOCK1Z
7	CLOCK2Z
8	CLOCK3Z
9	CLOCK4Z

PLANAR MONOLITHICS INDUSTRIES, INC.

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ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE			
DRAWN <i>JPH</i>		9/27/19	PRODUCT FEATURE MARPS-30M6G-5U-2			
CHECKED			SIZE	FSCM NO.	DWG NO.	REV.
ISSUED			A	05XQ0	PRELIMINARY	1
			SCALE	N:S	SHEET	1 OF 5

DIGITAL SIGNAL DEFINITIONS ("*" DENOTES OUTPUTS)					
PIN	FUNCTION	DIGITAL INPUT 1	DIGITAL INPUT 2	DIGITAL INPUT 3	DIGITAL INPUT 4
1	D31Z	ATTN31A	ATTN63A	ATTN31B	ATTN63B
2	D31Y				
3	D30Z	ATTN30A	ATTN62A	ATTN30B	ATTN62B
4	D30Y				
5	D23Z	ATTN23A	ATTN55A	ATTN23B	ATTN55B
6	D23Y				
7	D22Z	ATTN22A	ATTN54A	ATTN22B	ATTN54B
8	D22Y				
9*	GND	GND	GND	GND	GND
10*	+5	+5	+5	+5	+5
11	D15Z	ATTN15A	ATTN47A	ATTN15B	ATTN47B
12	D15Y				
13	D14Z	ATTN14A	ATTN46A	ATTN14B	ATTN46B
14	D14Y				
15*	GND	GND	GND	GND	GND
16*	+5	+5	+5	+5	+5
17	D07Z	ATTN7A	ATTN39A	ATTN7B	ATTN39B
18	D07Y				
19	D06Z	ATTN6A	ATTN38A	ATTN6B	ATTN38B
20	D06Y				
21	D29Z	ATTN29A	ATTN61A	ATTN29B	ATTN61B
22	D29Y				
23	D28Z	ATTN28A	ATTN60A	ATTN28B	ATTN60B
24	D28Y				
25	D21Z	ATTN21A	ATTN53A	ATTN21B	ATTN53B
26	D21Y				
27	D20Z	ATTN20A	ATTN52A	ATTN20B	ATTN52B
28	D20Y				
29*	GND	GND	GND	GND	GND
30*	+5	+5	+5	+5	+5
31	D13Z	ATTN13A	ATTN45A	ATTN13B	ATTN45B
32	D13Y				
33	D12Z	ATTN12A	ATTN44A	ATTN12B	ATTN44B
34	D12Y				
35	D05Z	ATTN5A	ATTN37A	ATTN5B	ATTN37B
36	D05Y				
37	D04Z	ATTN4A	ATTN36A	ATTN4B	ATTN36B
38	D04Y				
39*	GND	GND	GND	GND	GND
40*	+5	+5	+5	+5	+5
41	D27Z	ATTN27A	ATTN59A	ATTN27B	ATTN59B
42	D27Y				
43	D26Z	ATTN26A	ATTN58A	ATTN26B	ATTN58B
44	D26Y				
45	D19Z	ATTN19A	ATTN51A	ATTN19B	ATTN51B
46	D19Y				
47	D18Z	ATTN18A	ATTN50B	ATTN18B	ATTN50B
48	D18Y				
49*	GND	GND	GND	GND	GND
50*	+5	+5	+5	+5	+5
51	D11Z	ATTN11A	ATTN43A	ATTN11B	ATTN43B
52	D11Y				

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DIGITAL SIGNAL DEFINITIONS ("*" DENOTES OUTPUTS)					
PIN	FUNCTION	DIGITAL INPUT 1	DIGITAL INPUT 2	DIGITAL INPUT 3	DIGITAL INPUT 4
53	D10Z	ATTN10A	ATTN42A	ATTN10B	ATTN42B
54	D10Y				
55	D03Z	ATTN3A	ATTN35A	ATTN3B	ATTN34A
56	D03Y				
57	D02Z	ATTN2A	ATTN34A	ATTN2B	ATTN34B
58	D02Y				
59*	GND	GND	GND	GND	GND
60*	+5	+5	+5	+5	+5
61	D25Z	ATTN25A	ATTN57A	ATTN25B	ATTN57B
62	D25Y				
63	D24Z	ATTN24A	ATTN56A	ATTN24B	ATTN56B
64	D24Y				
65	D17Z	ATTN17A	ATTN49A	ATTN17B	ATTN49B
66	D17Y				
67	D16Z	ATTN16A	ATTN48A	ATTN16B	ATTN48B
68	D16Y				
69*	H2Z	CLOCK+	CLOCK+	CLOCK+	CLOCK+
70*	H2Y	CLOCK-	CLOCK-	CLOCK-	CLOCK-
71	D09Z	ATTN9A	ATTN41A	ATTN9B	ATTN41B
72	D09Y				
73	D08Z	ATTN8A	ATTN40A	ATTN8B	ATTN40B
74	D08Y				
75	D01Z	ATTN1A	ATTN33A	ATTN1B	ATTN33B
76	D01Y				
77	D00Z	ATTN0A	ATTN32A	ATTN0B	ATTN32B
78	D00Y				

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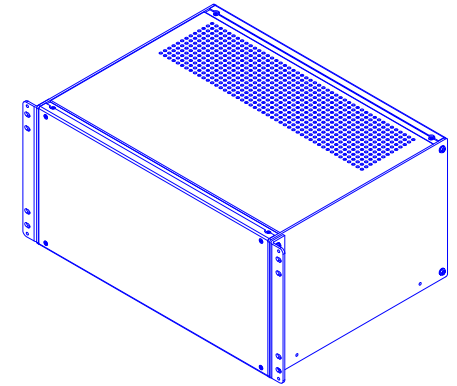
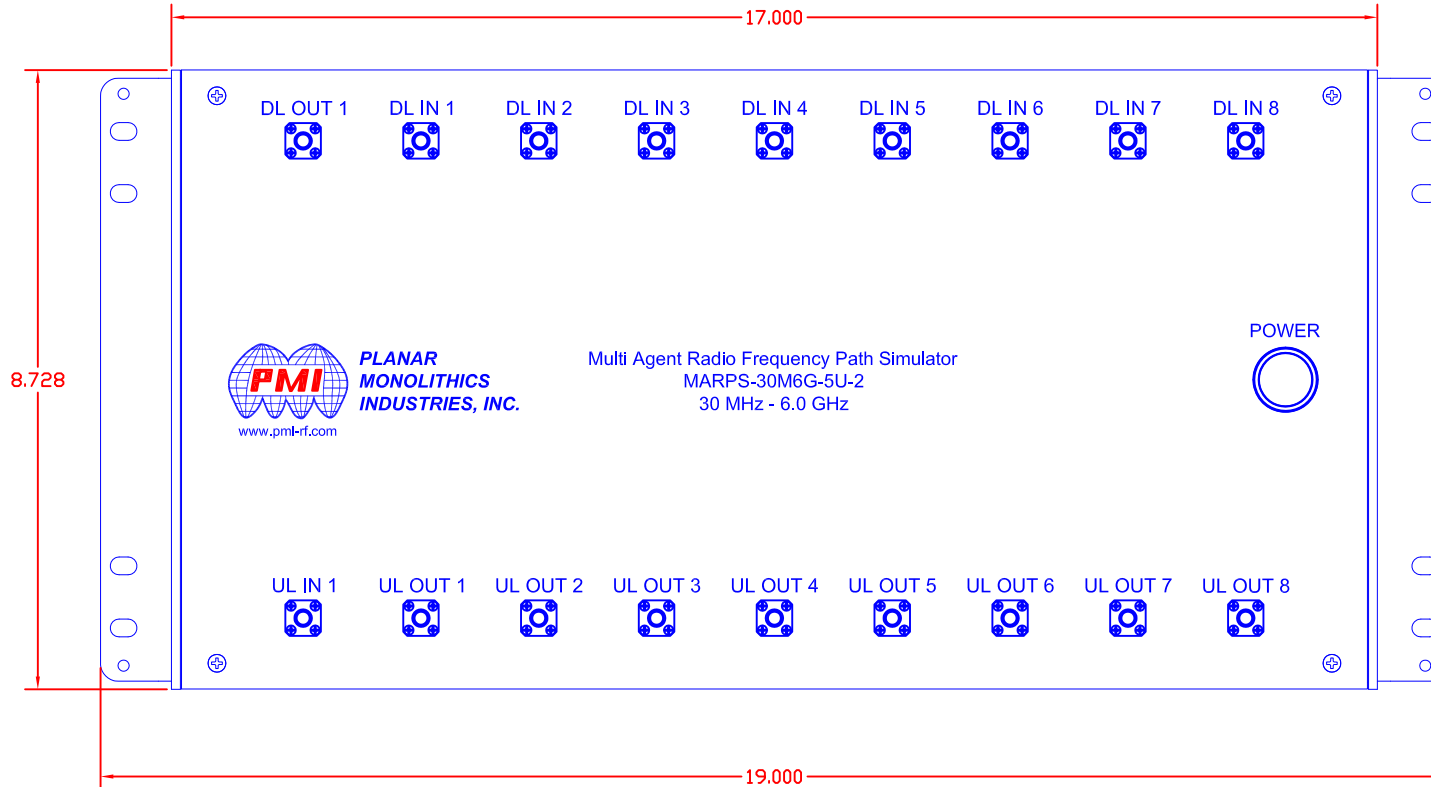
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ISSUED			SCALE N:S	SHEET 2 OF 5	REV. 1

FRONT VIEW

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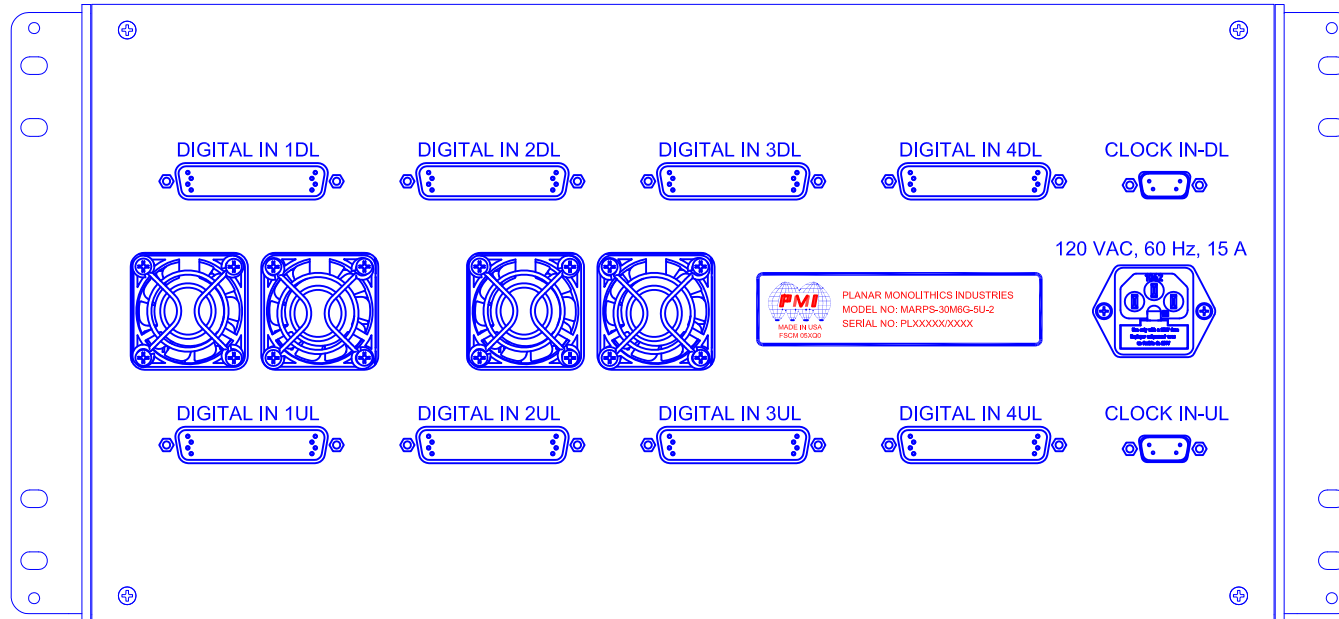
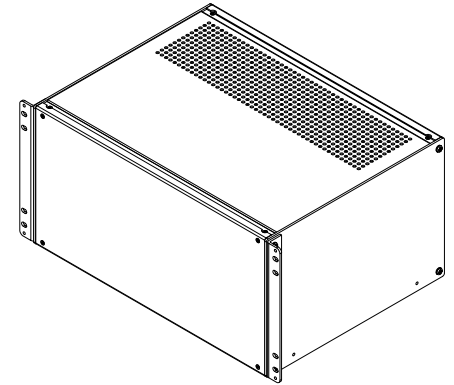


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REAR VIEW

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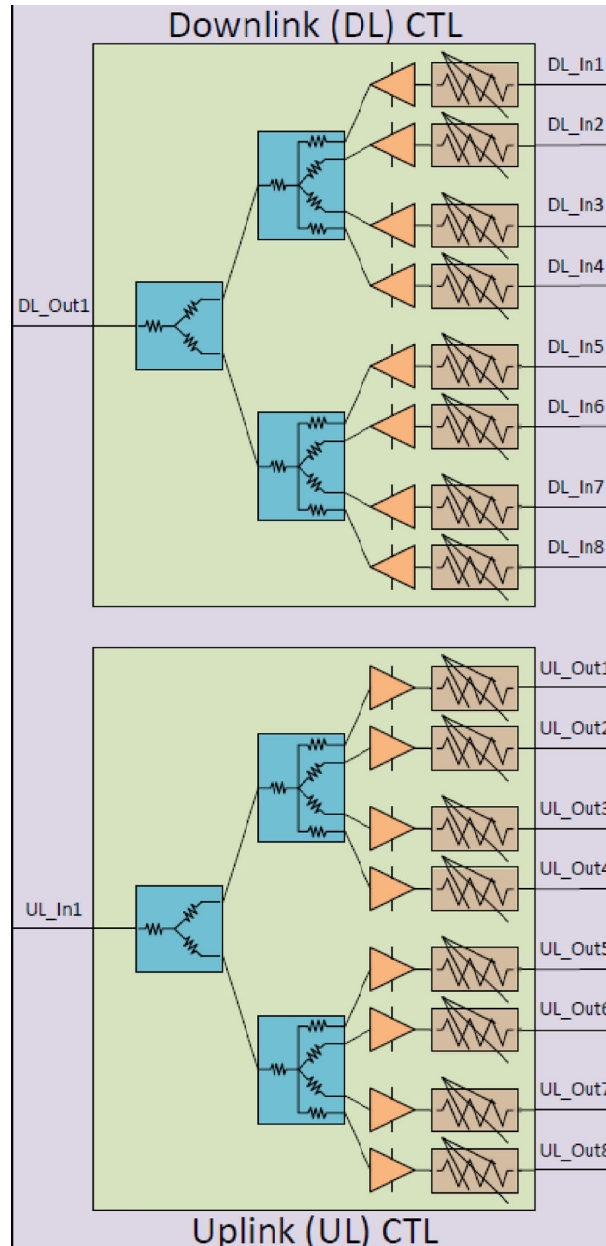
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					REV. 1

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BLOCK DIAGRAM



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				SHEET	5 OF 5