



**TYPICAL CHARACTERISTICS
ON
P2T-2G6G-75-T-SFF-I**

**PMI MODEL: P2T-2G6G-75-T-SFF-I IS AN ABSORPTIVE, HIGH SPEED, SINGLE
POLE TWO THROW SWITCH CAPABLE OF SWITCHING WITHIN 100 ns
MAXIMUM. THE FREQUENCY RANGE IS 2.0 GHz TO 6.0 GHz. THIS SWITCH HAS
75 dB ISOLATION**



MARCH 30, 2021

DESIGNED BY: PMI ENGINEERING

TESTED BY AND REPORTED BY: A. LOPEZ AND PMI TEST LAB

DATA SHEET REVIEWED BY: A. LOPEZ



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OUTLINE DRAWING

DESCRIPTION

PMI MODEL P2T-2G6G-75-T-SFF-I IS AN ABSORPTIVE, HIGH SPEED, SINGLE POLE TWO THROW SWITCH CAPABLE OF SWITCHING WITHIN 100 ns MAXIMUM. THE FREQUENCY RANGE IS 2.0 GHz TO 6.0 GHz. THIS SWITCH HAS 75 dB ISOLATION.

SPECIFICATIONS

- FREQUENCY RANGE: 2.0 GHz TO 6.0 GHz
- IMPEDANCE: 50 Ω
- INPUT POWER: +30dBm MAX (SURVIVAL)
+20dBm MAX (OPERATING)
- INPUT VSWR: 2.0:1 MAX
- INSERTION LOSS: 1.5dB MAX
- ISOLATION: 75dB MIN
- SWITCHING SPEED: 100ns MAX
- DC VOLTAGE: +5VDC, 100mA MAX.
-15VDC, 100mA MAX.
- CONTROL: SOLDER PIN
TTL COMPATIBLE - SEE LOGIC TABLE
- CONNECTORS IN/OUT: SMA (F)
- SIZE: (L) 1.0" X (W) 1.0" X (H) 0.4"
- FINISH: BLUE EPOXY POLIMIDE COATING IAW MIL-C-22750, TYPE I OVER EPOXY POLIMIDE PRIMER IAW MIL-P-23377, TYPE I, CLASS 1 OR 3.

*SPECIFICATIONS ARE NOT APPLICABLE WHEN THE SWITCH IS IN THE ALL ON OR ALL OFF SETTINGS

LOGIC TABLE

CTL1	CTL2	J1 - J2	J1 - J3
0	0	ON	ON
0	1	ON	OFF
1	0	OFF	ON
1	1	OFF	OFF

ENVIRONMENTAL RATINGS

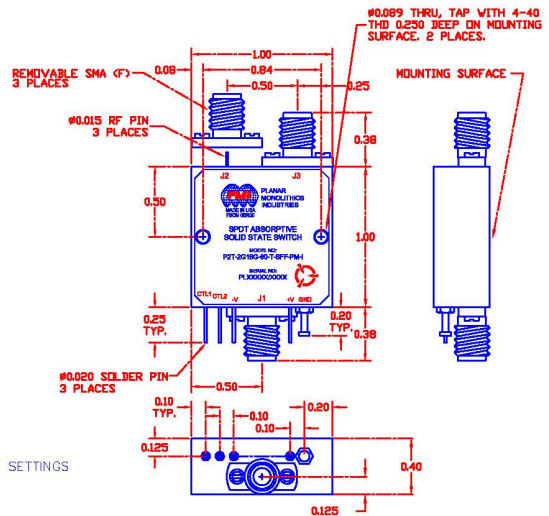
- TEMPERATURE: -55°C TO + 85°C (OPERATING)
-65°C TO +125°C (STORAGE)
- HUMIDITY: MIL-STD-202F, METHOD 103B COND. B
- SHOCK: MIL-STD-202F, METHOD 213B COND. B
- VIBRATION: MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE: MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-STD-202F, METHOD 107D COND. 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

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	7/15/20	

MECHANICAL OUTLINE



PMI CONFIDENTIAL AND PROPRIETARY

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ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE		
DRAWN: <i>B. Thomas</i>		10/16/15	PRODUCT FEATURE		
CHECKED: <i>SMJ</i>		7/15/20	P2T-2G6G-75-T-SFF-I		
ISSUED:			SIZE: A	FSCM NO. 05XQ0	DWG NO. 27039220
			SCALE: N: S		REV. A1
					SHEET 1 OF 1



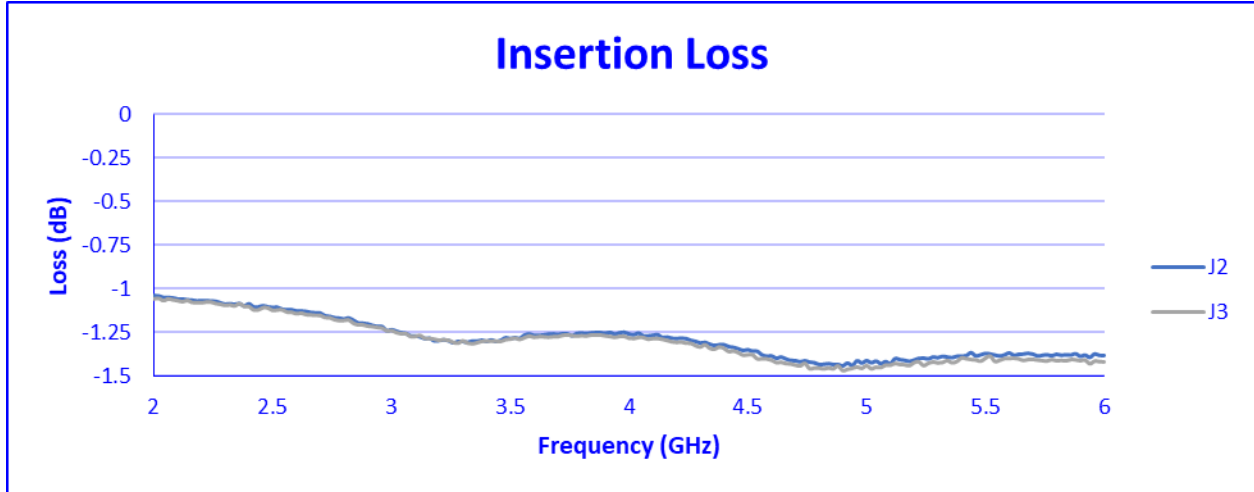
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TEST DATA SUMMARY

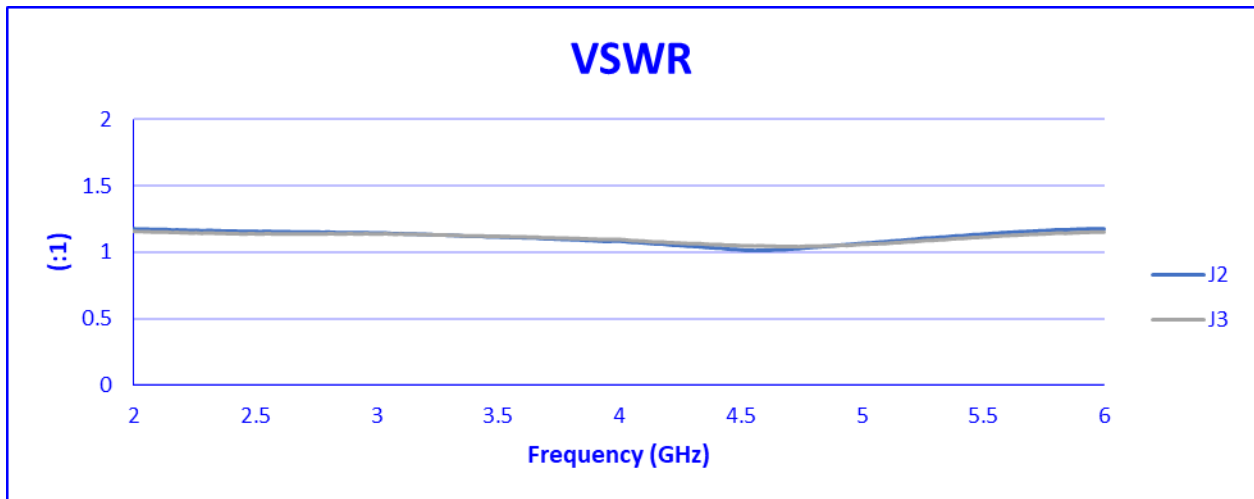
TEST ITEM	PARAMETER	SPECIFIED VALUE	TEST MEASUREMENT	QA QC
1	Frequency Range	2.0 GHz to 18.0 GHz	2.0 GHz to 18.0 GHz (See Plots)	
2	Insertion Loss:	3.0 dB Max.	1.47 dB (See Plots)	
3	Isolation:	85dB Typ. / 75dB Min.	84 dB (See Plots)	
4	Input VSWR:	2.0:1 Max.	1.17:1 (See Plots)	
5	Switching Speed:	100 ns Max.	49.5 ns (See Plots)	
6	Impedance:	50 Ω	Pass	
7	Input Power:	+30 dBm Max. (Survival) +20 dBm (Operating)	Pass (See Graph)	
8	DC Supply:	+5 VDC @ 100 mA Typ. -15 VDC @ 100 mA Typ.	+5 VDC @ 24 mA -15 VDC @ 56 mA	
9	Control:	TTL "0" → (J1-J2) TTL "1" → (J1-J3)	Pass	



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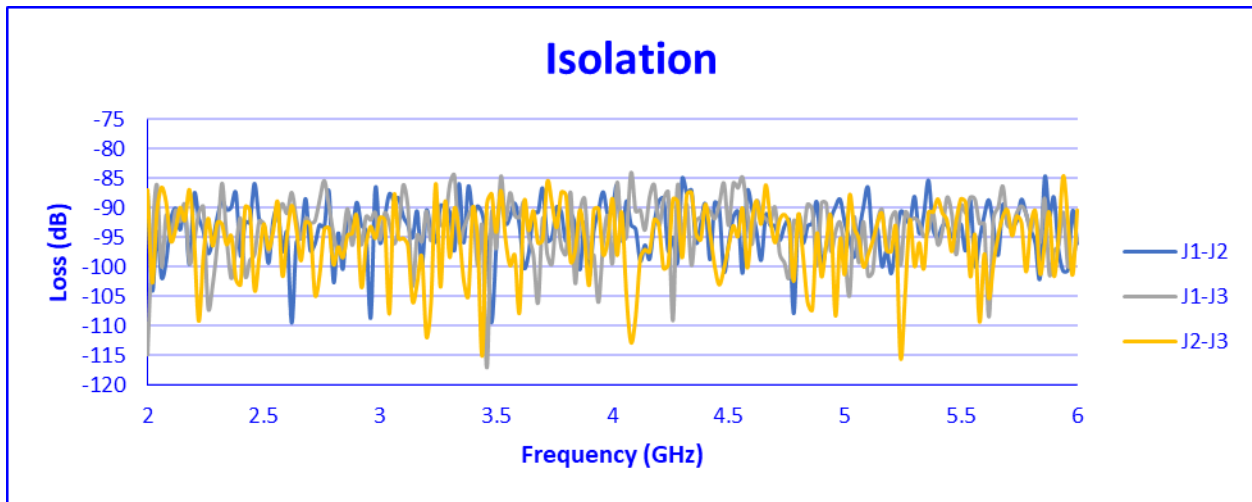
VSWR @ +25°C





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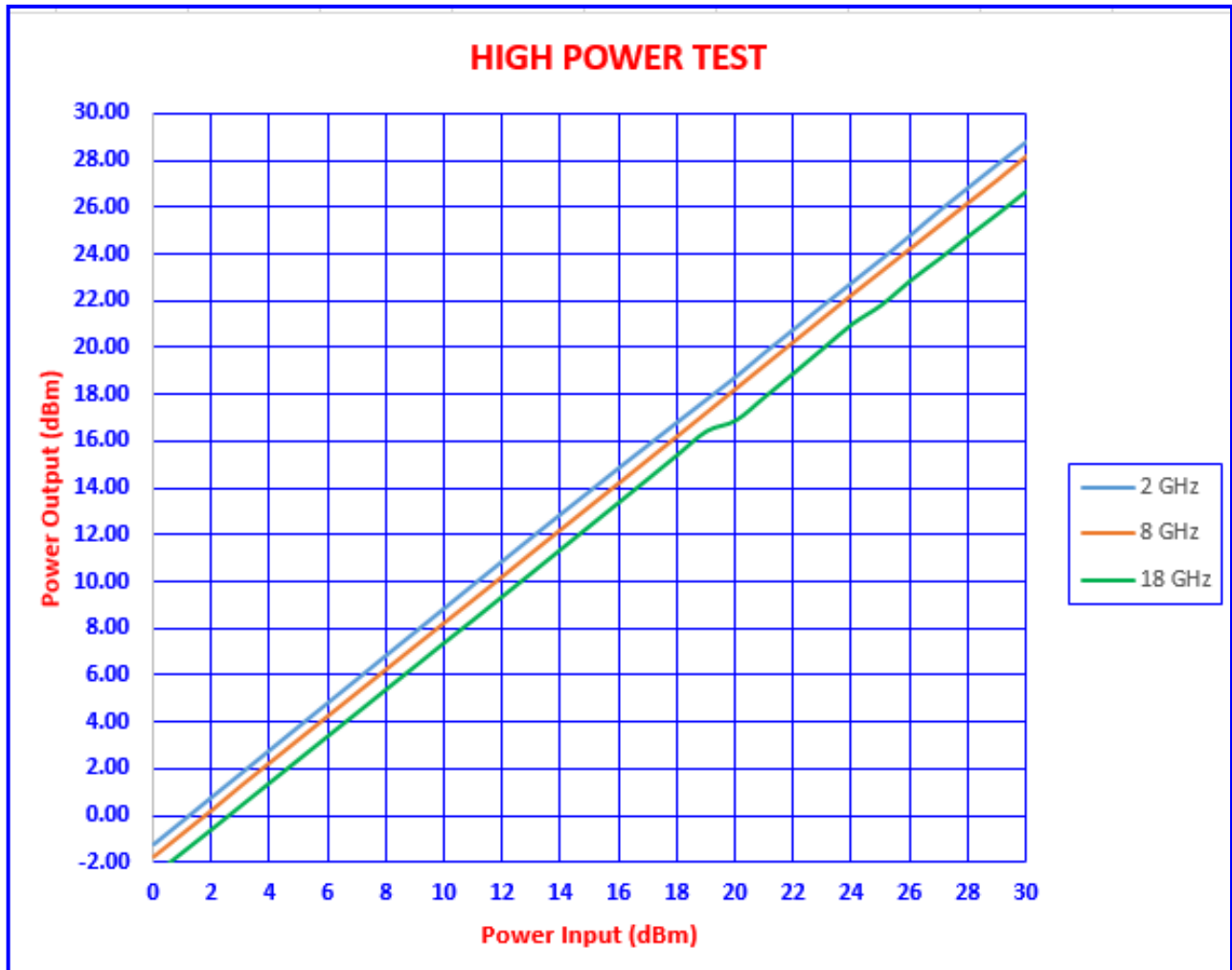
J1-J2, J1-J3, J2-J3 ISOLATION





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INPUT POWER





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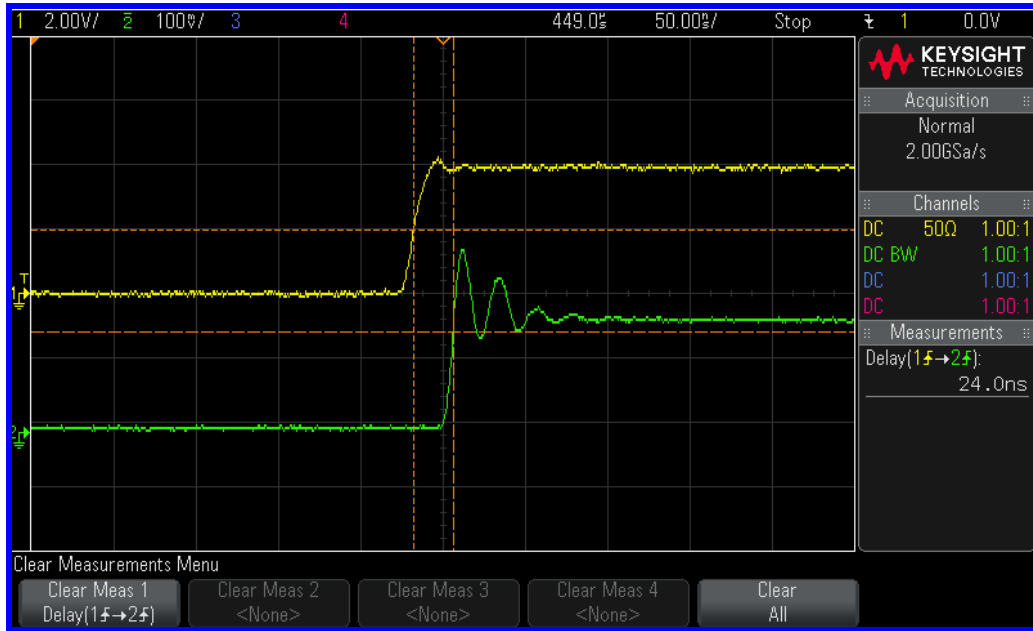
DATA HIGH POWER TEST.

POWER IN (dBm)	2GHz		8GHz		18GHz	
	POWER OUT (dBm)	LOSS	POWER OUT (dBm)	LOSS	POWER OUT (dBm)	LOSS
0	-1.18	1.18	-1.73	1.73	-2.56	2.56
1	-0.18	1.18	-0.73	1.73	-1.58	2.58
2	0.84	1.16	0.26	1.74	-0.59	2.59
3	1.84	1.16	1.30	1.70	0.41	2.59
4	2.85	1.15	2.30	1.70	1.41	2.59
5	3.86	1.14	3.30	1.70	2.40	2.60
6	4.87	1.13	4.30	1.70	3.40	2.60
7	5.88	1.12	5.29	1.71	4.40	2.60
8	6.89	1.11	6.29	1.71	5.39	2.61
9	7.90	1.10	7.29	1.71	6.39	2.61
10	8.90	1.10	8.28	1.72	7.39	2.61
11	9.91	1.09	9.27	1.73	8.37	2.63
12	10.92	1.08	10.27	1.73	9.37	2.63
13	11.92	1.08	11.27	1.73	10.37	2.63
14	12.92	1.08	12.26	1.74	11.38	2.62
15	13.90	1.10	13.26	1.74	12.38	2.62
16	14.89	1.11	14.26	1.74	13.39	2.62
17	15.87	1.13	15.25	1.75	14.39	2.61
18	16.84	1.17	16.25	1.75	15.41	2.59
19	17.80	1.20	17.26	1.74	16.42	2.58
20	18.76	1.24	18.27	1.73	16.87	3.13
21	19.80	1.20	19.28	1.72	17.88	3.12
22	20.80	1.20	20.29	1.71	18.90	3.10
23	21.81	1.19	21.29	1.71	19.95	3.05
24	22.79	1.21	22.30	1.70	20.99	3.01
25	23.78	1.22	23.28	1.72	21.80	3.20
26	24.80	1.20	24.26	1.74	22.85	3.15
27	25.85	1.15	25.25	1.75	23.78	3.22
28	26.84	1.16	26.23	1.77	24.75	3.25
29	27.84	1.17	27.20	1.80	25.70	3.30
30	28.80	1.20	28.22	1.78	26.68	3.32

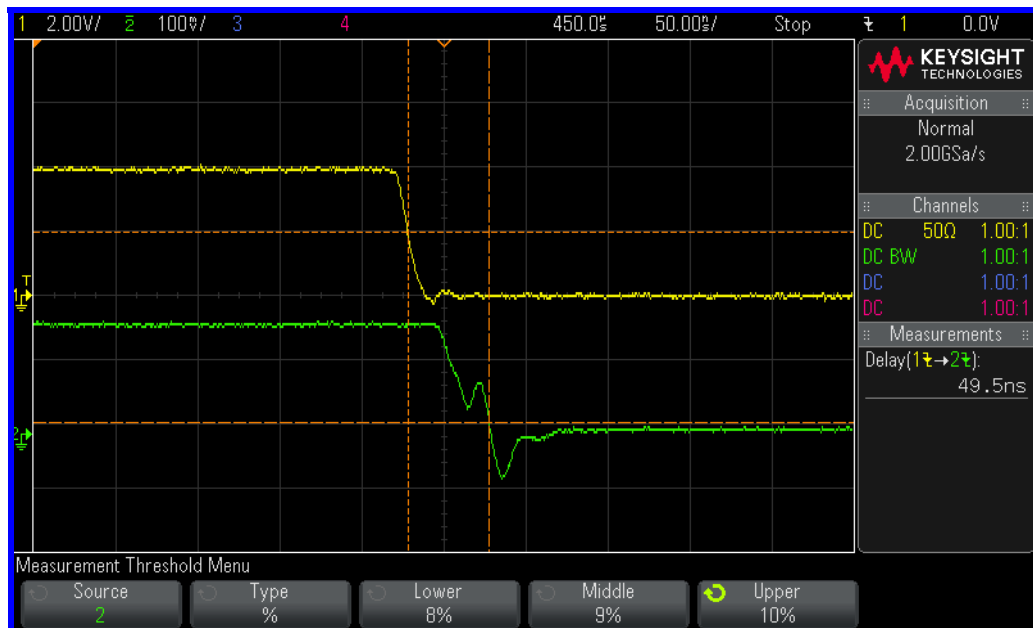


TYPICAL CHARACTERISTICS ON P2T-2G6G-75-T-SFF-I

ON SWITCHING SPEED (50ns Per Div)



OFF SWITCHING SPEED (50ns Per Div)



GREEN TRACE = TTL. YELLOW TRACE = RF.