

**SUMMARY TEST DATA
FOR
P1T-500M18G-80-R-SFF-SW21841A-515**

PMI MODEL NUMBER P1T-500M18G-80-R-SFF-SW21841A-515 IS A REFLECTIVE, HIGH SPEED, SINGLE POLE SINGLE THROW SWITCH OPERATING OVER THE FREQUENCY RANGE OF 0.5 TO 18 GHz.



Tested by: Keith W.
Reported by: Matt L.
Date: 10/20/25

SUMMARY TEST DATA FOR P1T-500M18G-80-R-SFF-SW21841A-515

Outline Drawing

DESCRIPTION:

PMI MODEL NUMBER P1T-500M18G-80-R-SFF-SW21841A-515 IS A REFLECTIVE, HIGH SPEED, SINGLE POLE SINGLE THROW SWITCH OPERATING OVER THE FREQUENCY RANGE OF 0.5 TO 18 GHz AND MEETING THE FOLLOWING SPECIFICATIONS.

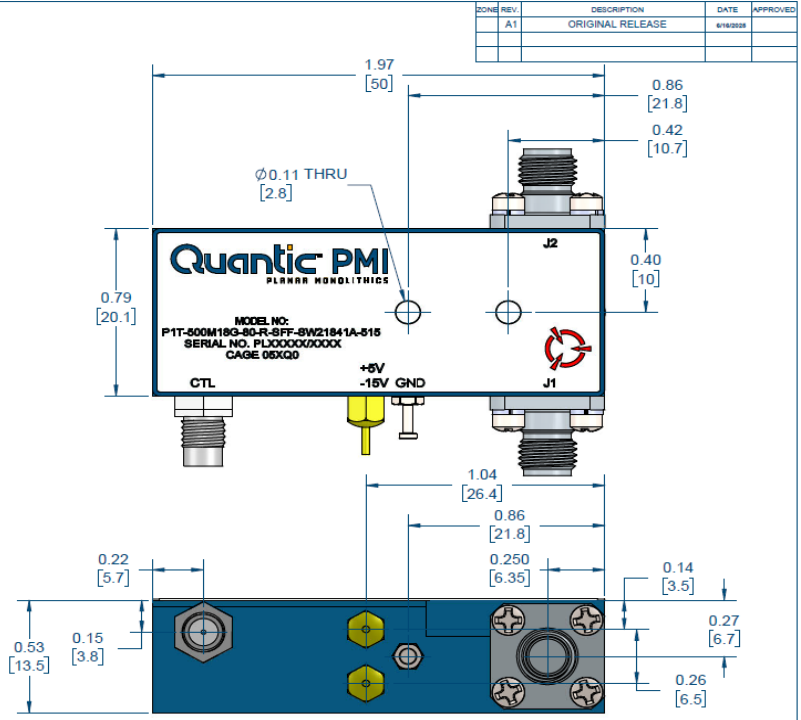
SPECIFICATIONS:

- FREQUENCY RANGE:..... 500 MHz TO 18.0 GHz
- INSERTION LOSS:..... 1.0 dB MAX (0.5 to 2.0 GHz)
1.2 dB MAX (2.0 to 4.0 GHz)
1.5 dB MAX (4.0 to 8.0 GHz)
2.0 dB MAX (8.0 to 12.4 GHz)
2.5 dB MAX (12.4 to 18.0 GHz)
- ISOLATION:..... 80 dB MIN
- VSWR:..... 1.4:1 MAX (0.5 TO 4.0 GHz) "ON POSITION"
1.6:1 MAX (4.0 TO 8.0 GHz) "ON POSITION"
1.9:1 MAX (8.0 TO 18.0 GHz) "ON POSITION"
- INPUT POWER:..... 2 W AVG, 10 W PEAK @ 1usec PW
- RISE/FALL TIME:..... 2 ns MAX
(10% TO 90% RF & 90% TO 10% RF)
- DELAY ON/OFF:..... 20 ns MAX
(50% TO 10% / 90% RF)
- DC VOLTAGE:..... +5 VDC, 100 mA MAX
-15 VDC, 45 mA MAX
- CONTROL:..... TTL COMPATIBLE
"0" = ISOLATION
"1" = INSERTION LOSS
- CONTROL CONNECTOR:..... SMC MALE
- CONNECTORS:..... SMA FEMALE
- FINISH:..... PAINTED BLUE

ENVIRONMENTAL RATINGS:

- TEMPERATURE:..... -55°C TO +85°C (OPERATING)
-65°C TO +125°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: SPECIFICATIONS WILL VARY OVER TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION



ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	6/16/2020	

PMI CONFIDENTIAL AND PROPRIETARY

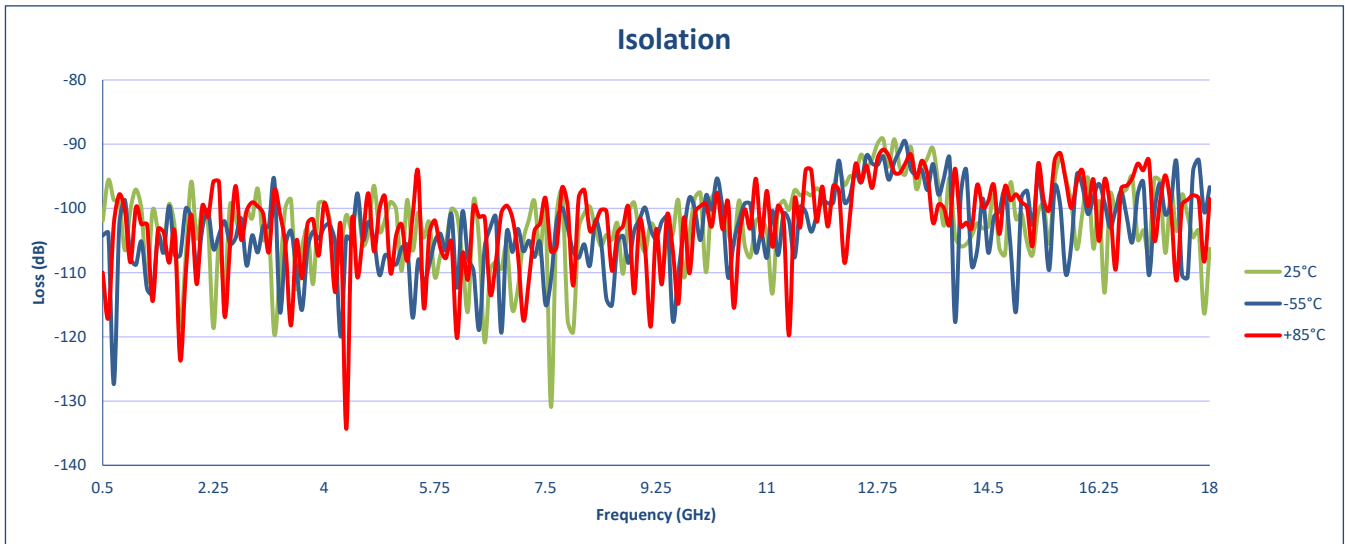
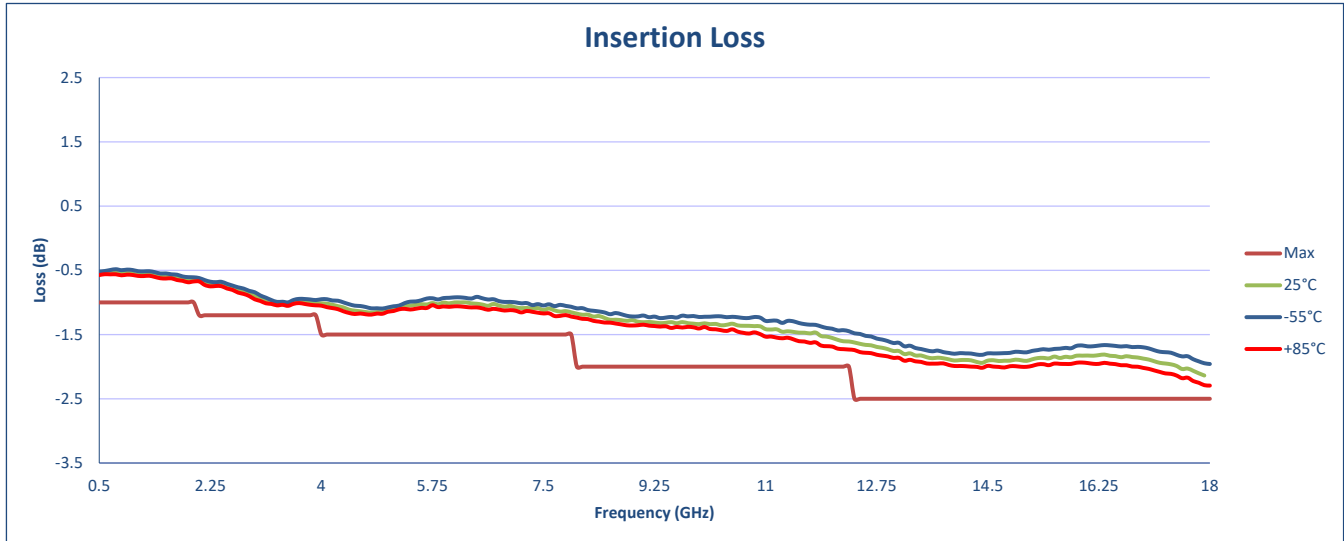
Quantic PMI PLANAR MONOLITHICS		7309-A GROVE ROAD, FREDERICK, MARYLAND 21704 USA WEB: WWW.QUANTICPMI.COM EMAIL: SALES@QUANTICPMI.COM 800.800.8217	
APPROVALS	DATE	TITLE	
M. LAULIS	6/16/2020	OUTLINE	
DESIGNED BY	DATE	SIZE	REV
RESERVED		B	A1
PART NUMBER: 05XQ00		QWG NO.:	27052160
SCALE: 2:1		SHEET 1 OF 1	

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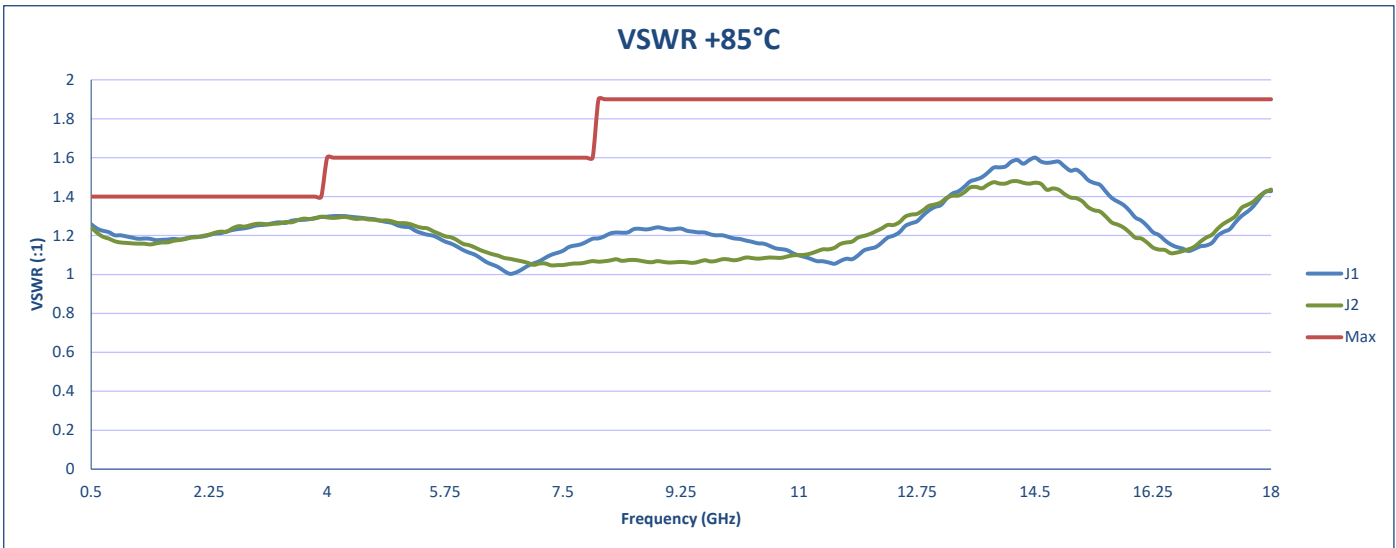
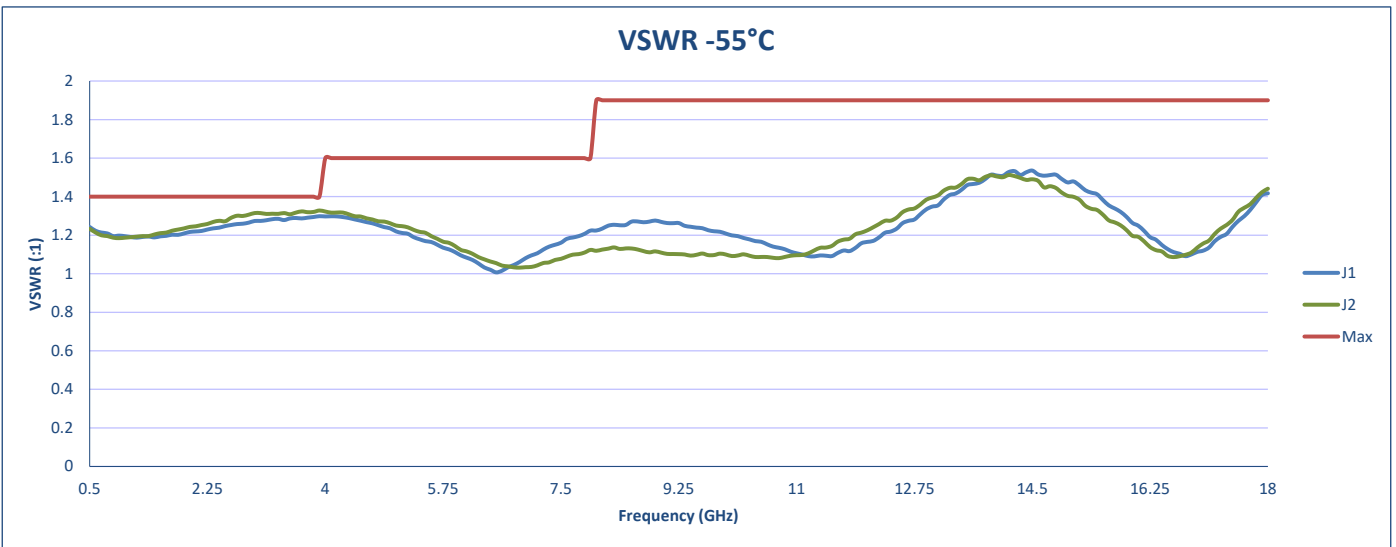
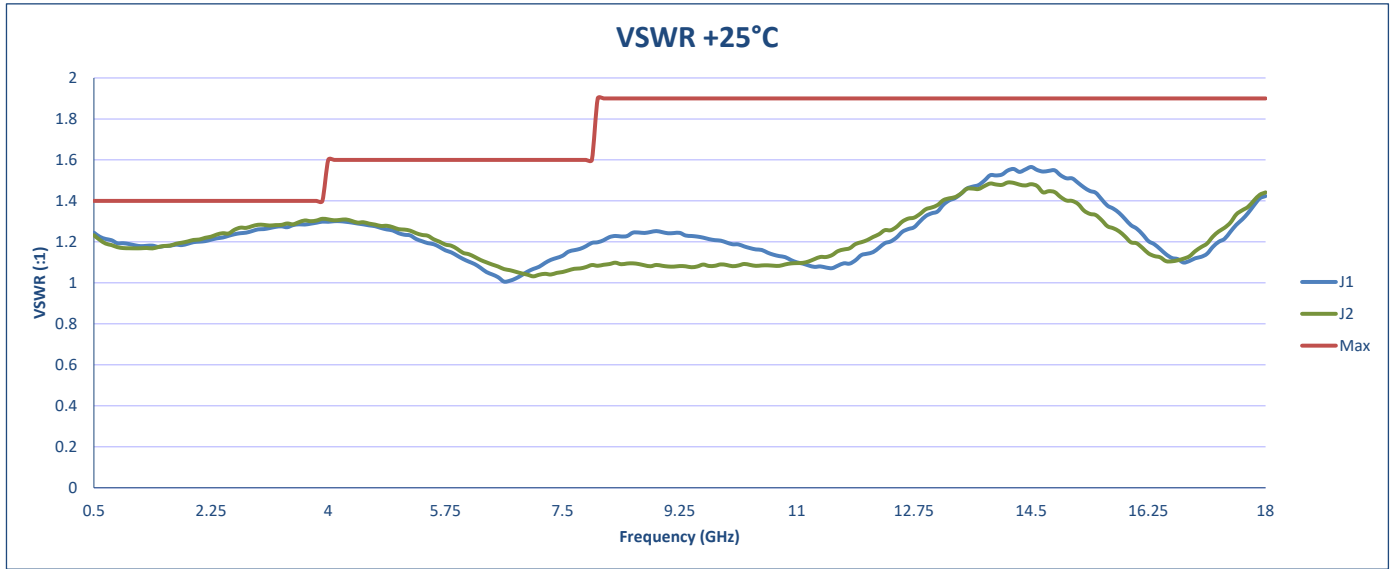
Test Specification

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS		
			+25°C	-55°C	+85°C
1	Frequency Range:	0.5 to 18.0 GHz	0.5 to 18.0 GHz		
2	Insertion Loss:	1.0 dB Max. (0.5 to 2.0 GHz) 1.2 dB Max. (2.0 to 4.0 GHz) 1.5 dB Max. (4.0 to 8.0 GHz) 2.0 dB Max. (8.0 to 12.4 GHz) 2.5 dB Max. (12.4 to 18.0 GHz)	0.5 dB (0.5 to 2.0 GHz) 0.7 dB (2.0 to 4.0 GHz) 1 dB (4.0 to 8.0 GHz) 1.2 dB (8.0 to 12.4 GHz) 1.6 dB (12.4 to 18.0 GHz) See Plot	0.5 dB (0.5 to 2.0 GHz) 0.6 dB (2.0 to 4.0 GHz) 0.9 dB (4.0 to 8.0 GHz) 1.1 dB (8.0 to 12.4 GHz) 1.5 dB (12.4 to 18.0 GHz) See Plot	0.6 dB (0.5 to 2.0 GHz) 0.7 dB (2.0 to 4.0 GHz) 1 dB (4.0 to 8.0 GHz) 1.2 dB (8.0 to 12.4 GHz) 1.7 dB (12.4 to 18.0 GHz) See Plot
3	Isolation:	80 dB Min.	89 dB See Plot	90 dB See Plot	91 dB See Plot
4	VSWR : "On Position"	1.4:1 Max. (0.5 to 4.0 GHz) 1.6:1 Max. (4.0 to 8.0 GHz) 1.9:1 Max. (8.0 to 18.0 GHz)	1.31:1 (0.5 to 4.0 GHz) 1.31:1 (4.0 to 8.0 GHz) 1.57:1 (8.0 to 18.0 GHz) See Plot	1.33:1 (0.5 to 4.0 GHz) 1.32:1 (4.0 to 8.0 GHz) 1.54:1 (8.0 to 18.0 GHz) See Plot	1.3:1 (0.5 to 4.0 GHz) 1.3:1 (4.0 to 8.0 GHz) 1.6:1 (8.0 to 18.0 GHz) See Plot
5	Input Power:	2W Average 10W Peak @ 1 μsec PW	10 W Peak 1 μsec PW, 20% DC		
6	Rise / Fall Time: (10% to 90% RF & 90% to 10% RF)	2 ns Max.	2 ns		
7	Delay: On / Off (50% to 10% / 90% RF)	20 ns Max.	19.6 ns		
8	DC Supply:	+5 VDC @ 100 mA MAX -15 VDC @ 45 mA MAX	+5 VDC @ 47 mA -15 VDC @ 32 mA		
9	Control Signal:	TTL COMPATIBLE		0: Isolation 1: Insertion Loss	
		0	"ISOLATION"		
		1	"INSERTION LOSS"		

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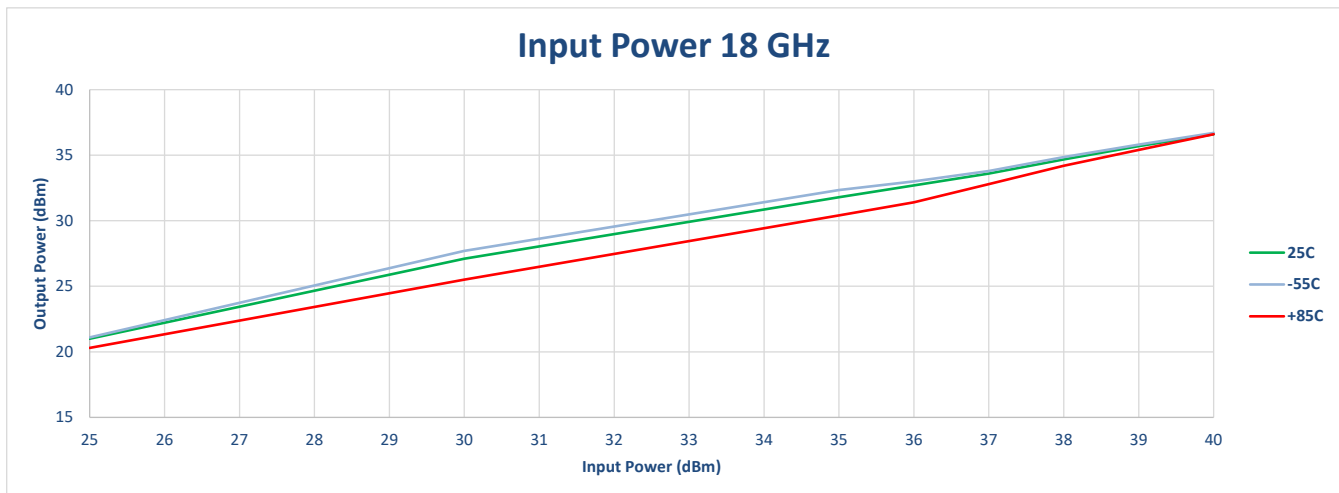
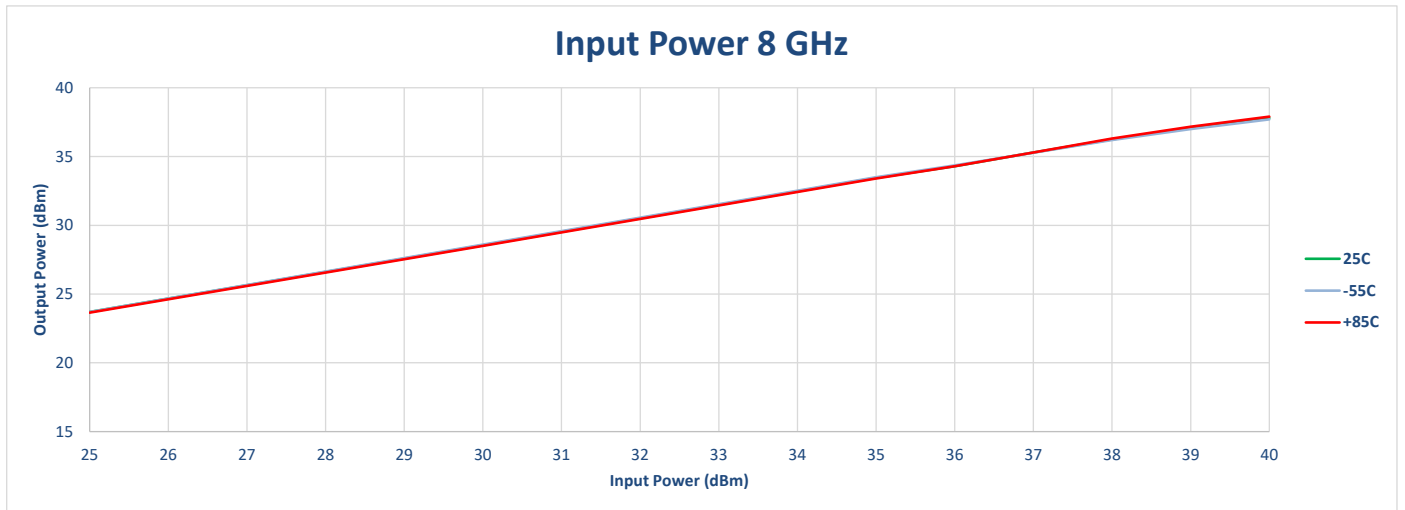
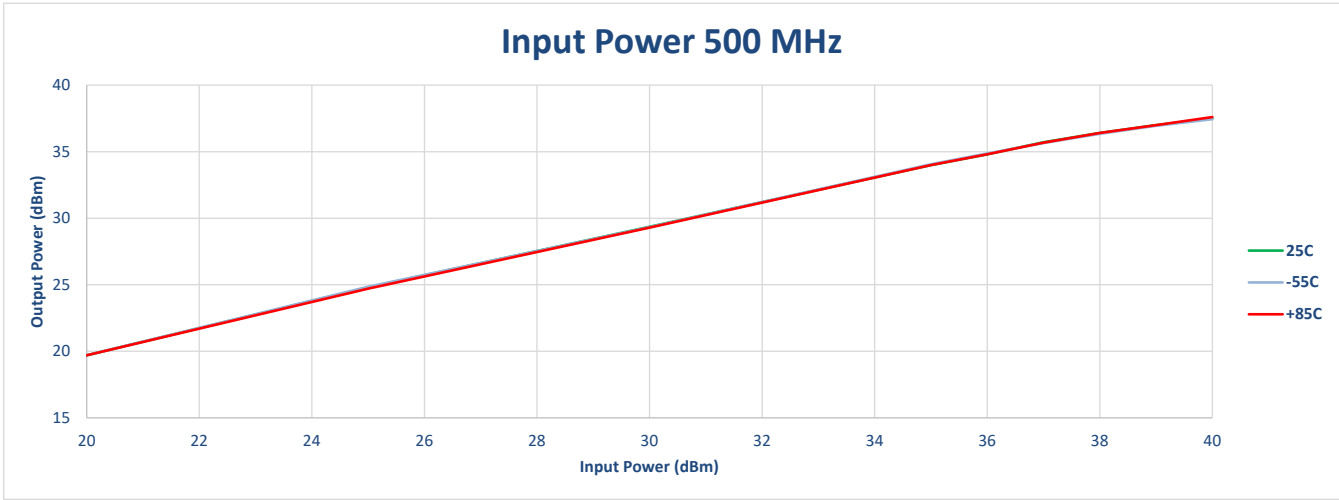


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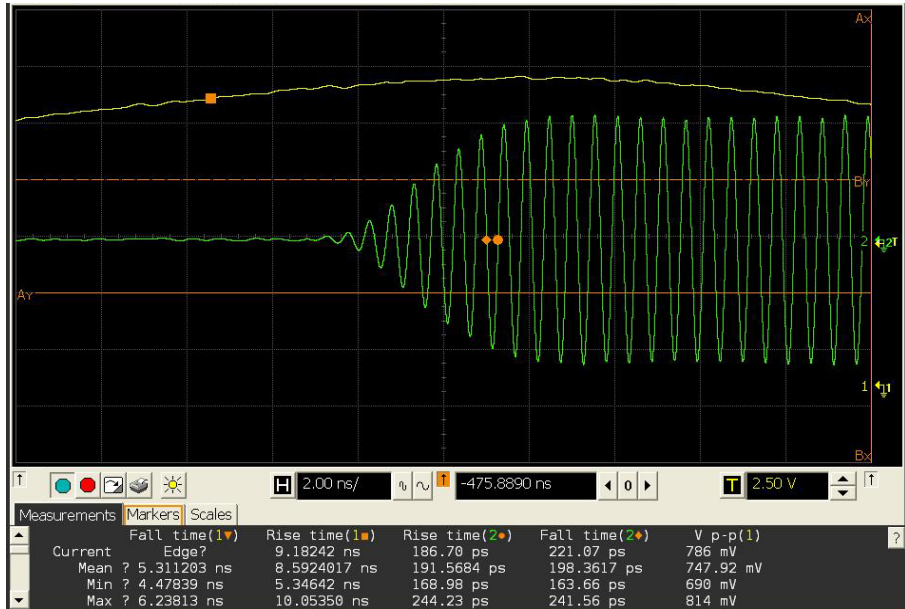
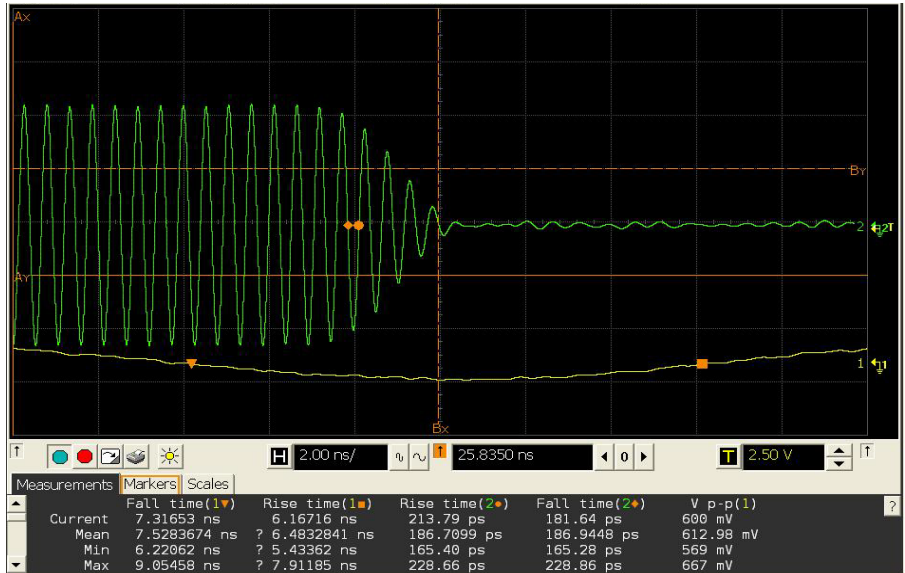
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Input Power @ 10 W Peak, 1 μ sec PW, 20% DC



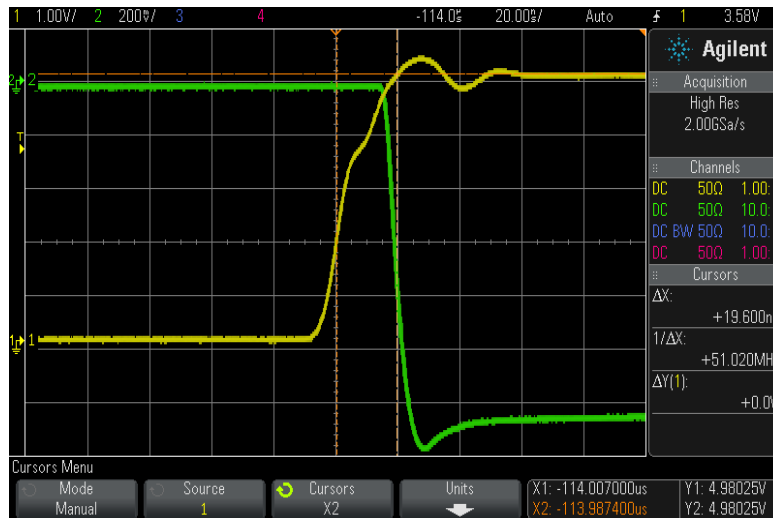
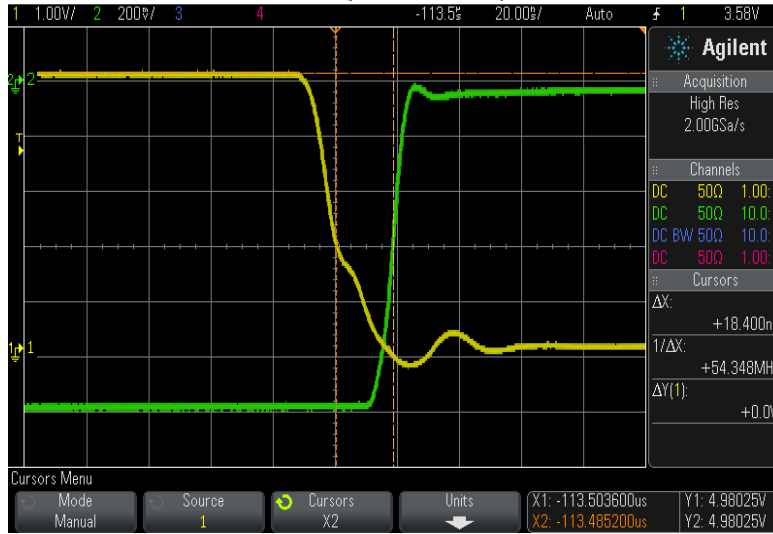
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Rise/Fall Time
2ns per Div.



SUMMARY TEST DATA FOR P1T-500M18G-80-R-SFF-SW21841A-515

Switching Speed
Delay On / Off 20 ns per Div.



Full Pulse
100 ns per Div

