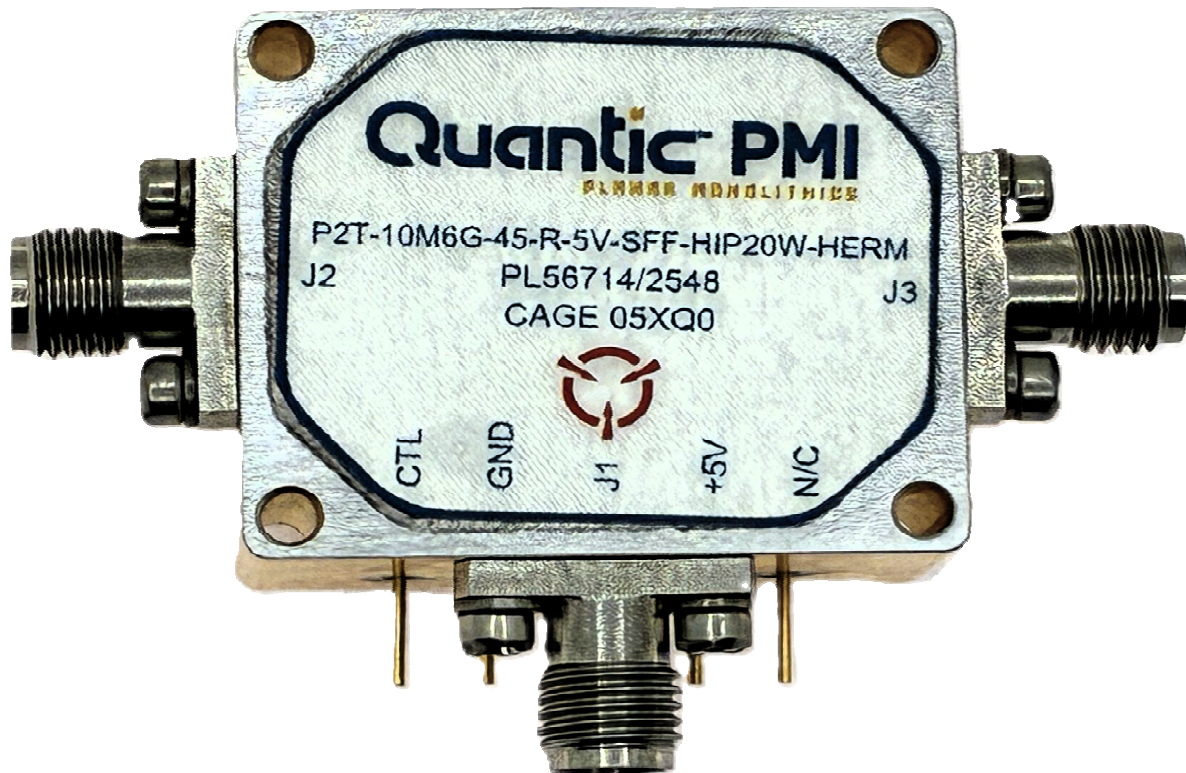


**TYPICAL CHARACTERISTICS
ON
P2T-10M6G-45-R-5V-SFF-HIP20W-HERM**

PMI MODEL P2T-10M6G-45-R-5V-SFF-HIP20W-HERM IS A REFLECTIVE, SINGLE POLE, TWO THROW PIN DIODE SWITCH THAT OPERATES OVER THE 10 MHz TO 6000 MHz FREQUENCY RANGE. THIS MODEL IS CAPABLE OF HANDLING AN INPUT POWER LEVEL OF 20 WATTS CW WHILE PROVIDING SWITCHING SPEEDS OF <100 ns AND REQUIRES A SINGLE +5 VDC SUPPLY. THIS MODEL INCORPORATES A TTL COMPATIBLE DRIVER FOR EASY SYSTEM INTEGRATION.



REPORTED BY J Escano
DATE 1/9/2025

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Email: sales@quanticpmi.com

**TYPICAL CHARACTERISTICS
ON
P2T-10M6G-45-R-5V-SFF-HIP20W-HERM**

PRODUCT FEATURE

DESCRIPTION:

PMI MODEL P2T-10M6G-45-R-5V-SFF-HIP20W-HERM IS A REFLECTIVE, SINGLE POLE, TWO THROW PIN DIODE SWITCH THAT OPERATES OVER THE 10 MHz TO 6000 MHz FREQUENCY RANGE. THIS MODEL IS CAPABLE OF HANDLING AN INPUT POWER LEVEL OF 20 WATTS CW WHILE PROVIDING SWITCHING SPEEDS OF <100 ns AND REQUIRES A SINGLE +5 VDC SUPPLY. THIS MODEL INCORPORATES A TTL COMPATIBLE DRIVER FOR EASY SYSTEM INTEGRATION.

SPECIFICATIONS:

- FREQUENCY:..... 10 TO 6000 MHz
- ISOLATION:..... 25 dB TYP, 20 dB MIN
- INSERTION LOSS:..... 2.5 dB TYP, 2.8 dB MAX
- VSWR:..... 2.0:1 TYP
- OPERATING INPUT POWER:..... 20 WATTS CW MAX
(NOT TO BE SWITCHED ANY HIGHER THAN 50 kHz [PR1])
- SWITCHING SPEED:..... 100 ns MAX (50% TTL TO 10%/90% RF)
- IMPEDANCE:..... 50 Ω
- POWER SUPPLY :..... +5 V @ 30 mA TYP
- CONTROL:..... TTL LOGIC (SEE TABLE)
- CONNECTORS:..... SMA (F) - MECHANICALLY CAPTIVATED
- CONTROL CONNECTORS:..... SOLDER PINS
- FINISH:..... GOLD PLATED
- SEALING:..... POST-MACHINED SURFACES CHEMICALLY COATED IAW MIL-DTL-5541, TYPE II, CLASS 3
HERMETIC

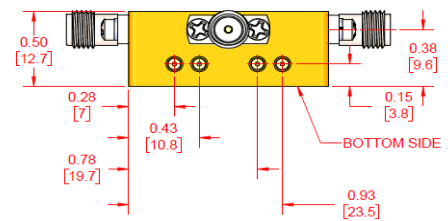
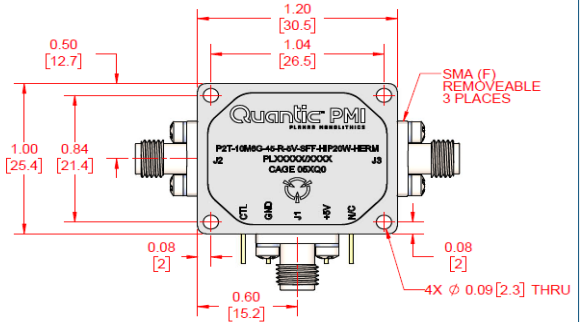
CTL	J1-J2	J1-J3
0	ON	OFF
1	OFF	ON

ENVIRONMENTAL RATINGS:

- TEMPERATURE:..... -54°C TO +85°C (OPERATING)
-55°C TO +125°C (STORAGE)
- VIBRATION:..... MIL-STD-202, METHOD 204D COND. B
- SPACE SCREENING:..... MIL-PRF-38534 CLASS H
- PIND:..... MIL-STD-883, METHOD 2020

NOTE: SPECIFICATIONS WILL VARY OVER TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

DATE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	4/10/2024	



PMI CONFIDENTIAL AND PROPRIETARY

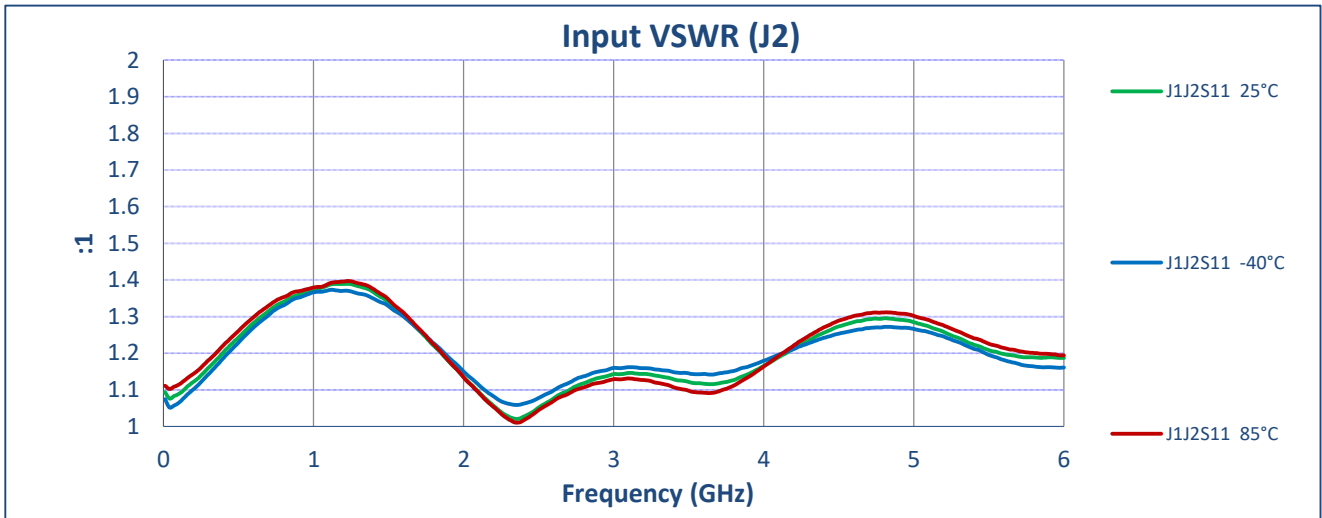
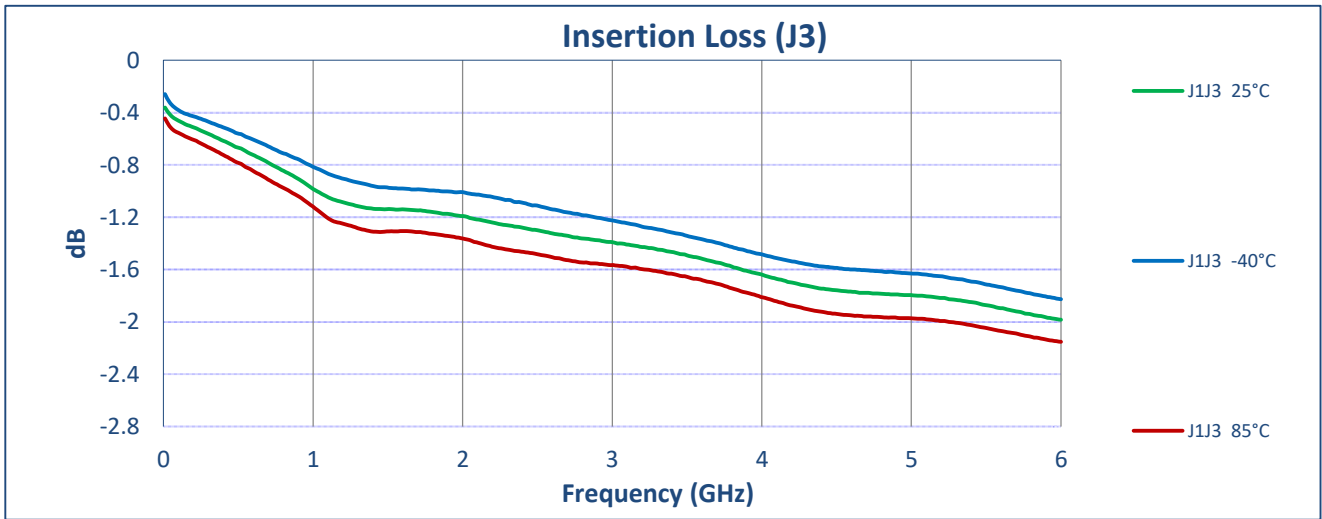
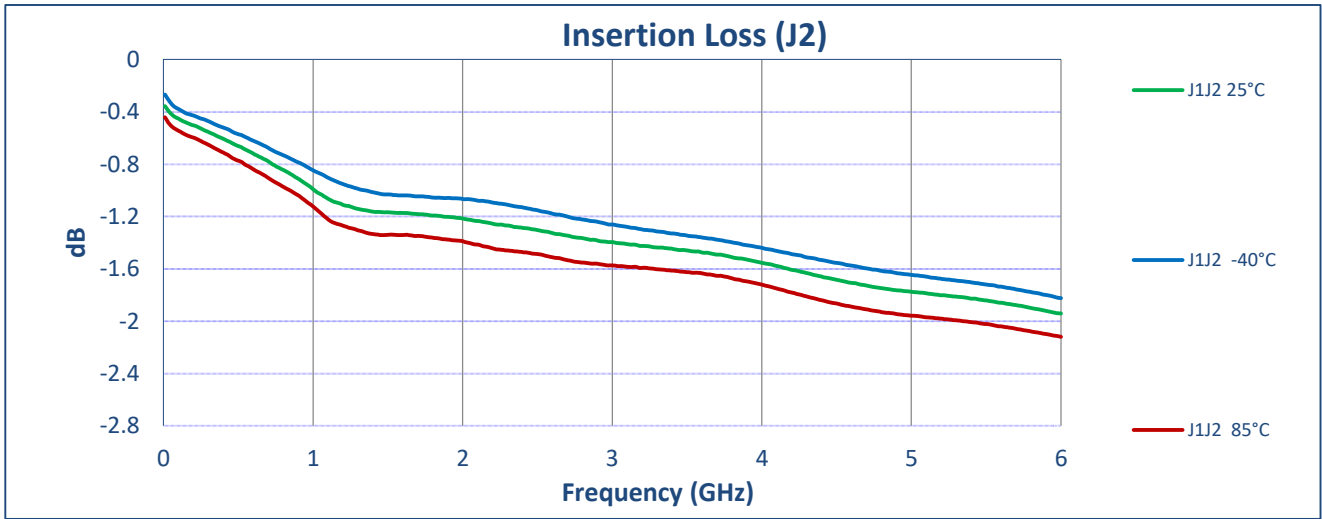
APPROVALS	DATE	TITLE
DESIGNED J ESCANO	4/10/2024	OUTLINE
DRAWN		P2T-10M6G-45-R-5V-SFF-HIP20W-HERM
REVISION		REV: P20R MC
		B 05XQ0 27051480
		SCALE 2:1
		SHEET 1 OF 1

TEST DATA

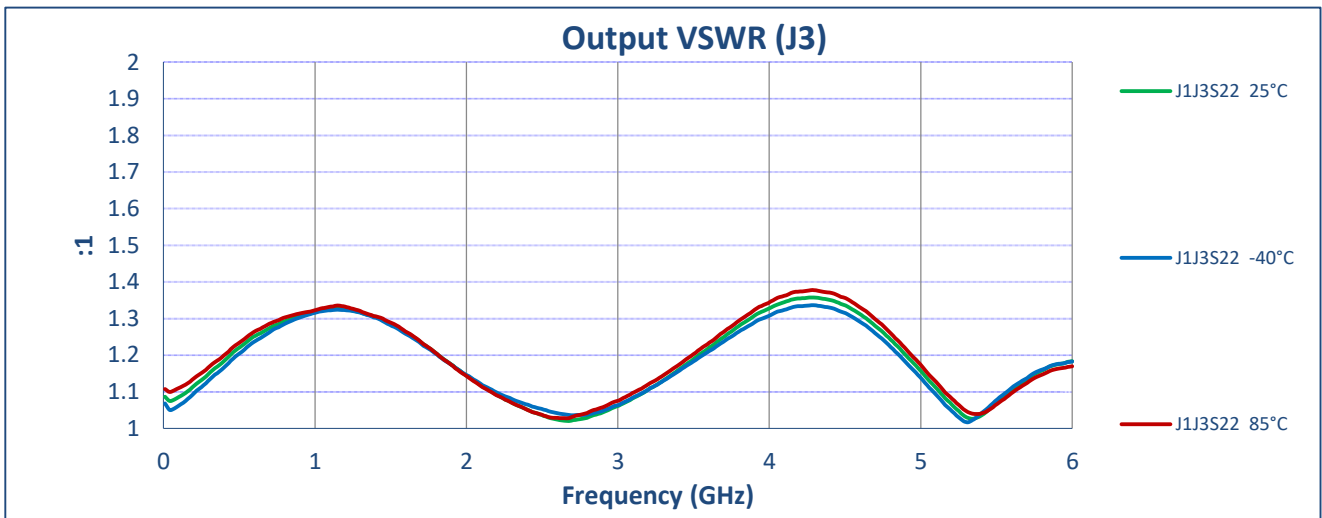
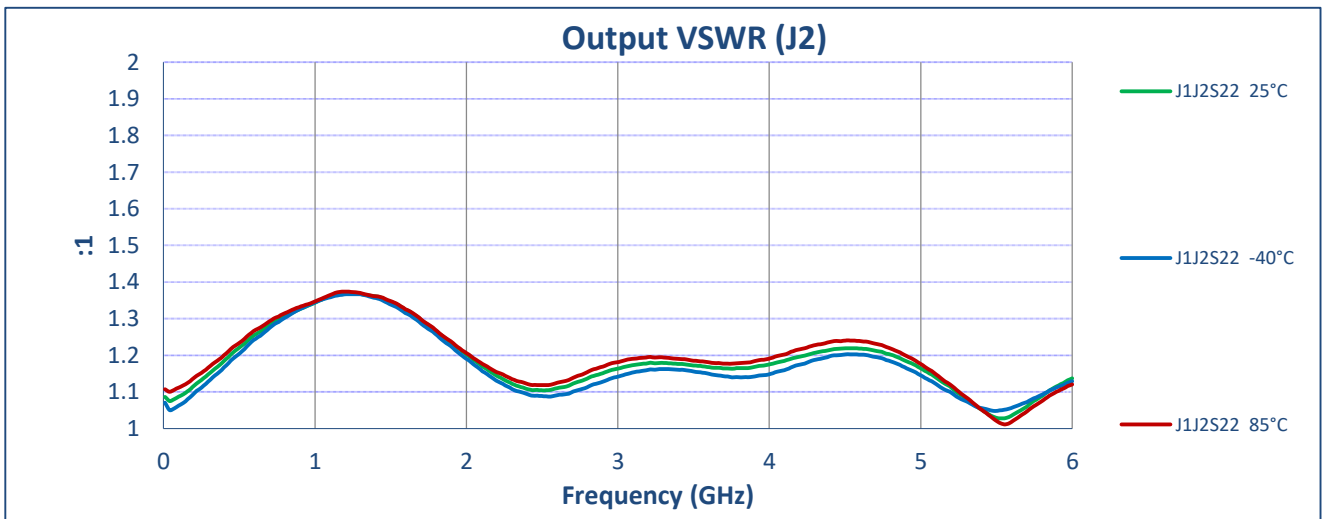
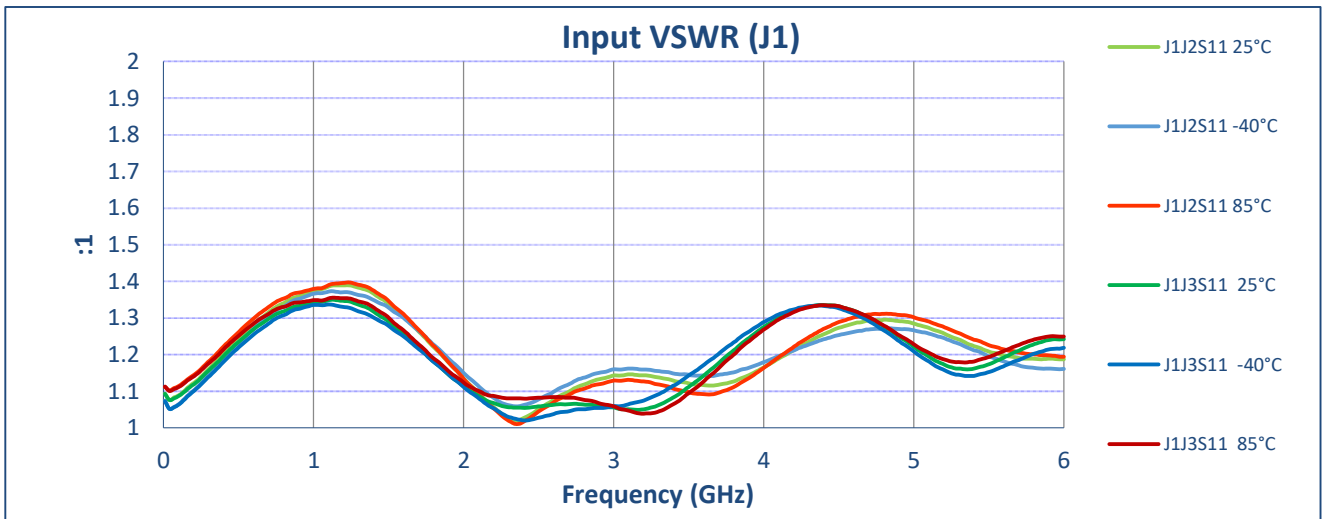
TEST ITEM	PARAMETERS	SPECIFIED VALUE	TEST RESULTS		
			25°C	-40°C	85°C
1	Frequency Range	10 MHz to 6000 MHz	10 MHz to 6000 MHz		
2	Isolation	25 dB Typ. 20 dB Min.	36.1 dB	36.8 dB	35.3 dB
3	Insertion Loss	2.5 dB Typ. 2.8 dB Max.	1.98 dB	1.83 dB	2.15 dB
4	VSWR: In/Out	2.0:1 Max.	1.39:1 In 1.37:1 Out	1.37:1 In 1.37:1 Out	1.4:1 In 1.38:1 Out
5	Input Power	20 W CW Max.*	20 W CW	20 W CW	20 W CW
6	Switching Speed Max	100 ns Max. (50% TTL to 10%/90% RF)	51 ns OFF 75.6 ns ON		
7	Power Supply	+5 V @ 30 mA Typ. 50 mA Max.	+5 V @ 37 mA	+5 V @ 31 mA	+5 V @ 45 mA

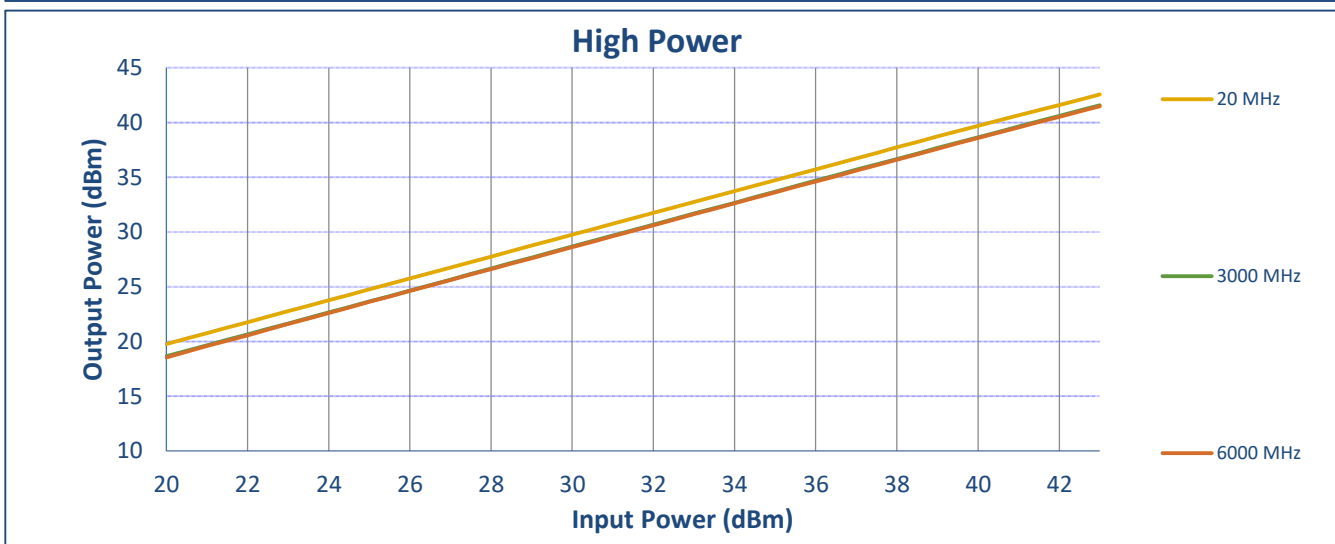
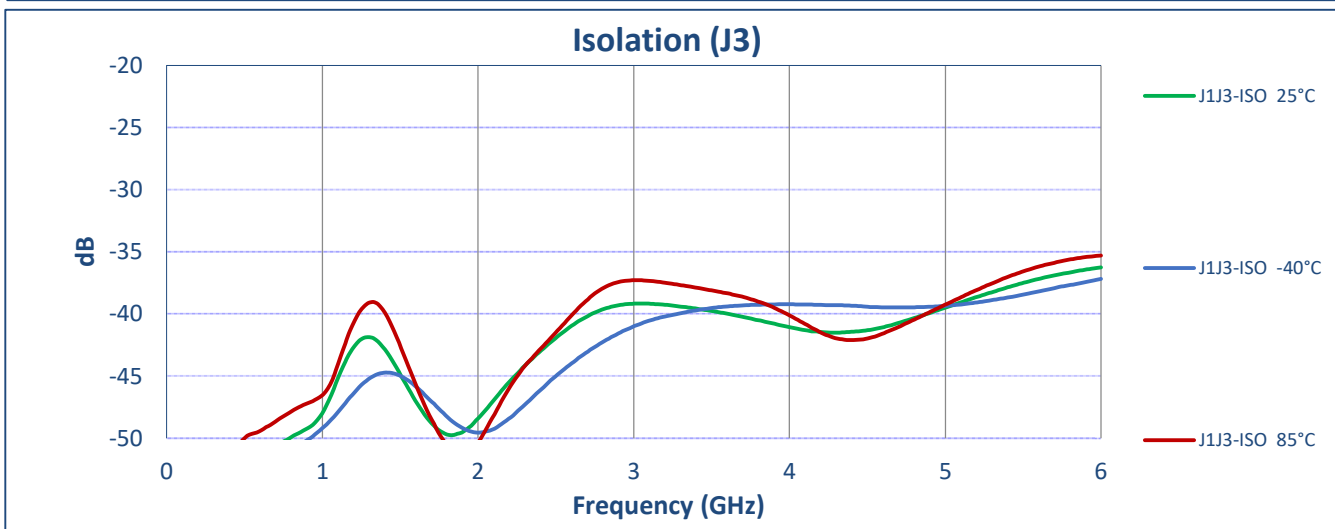
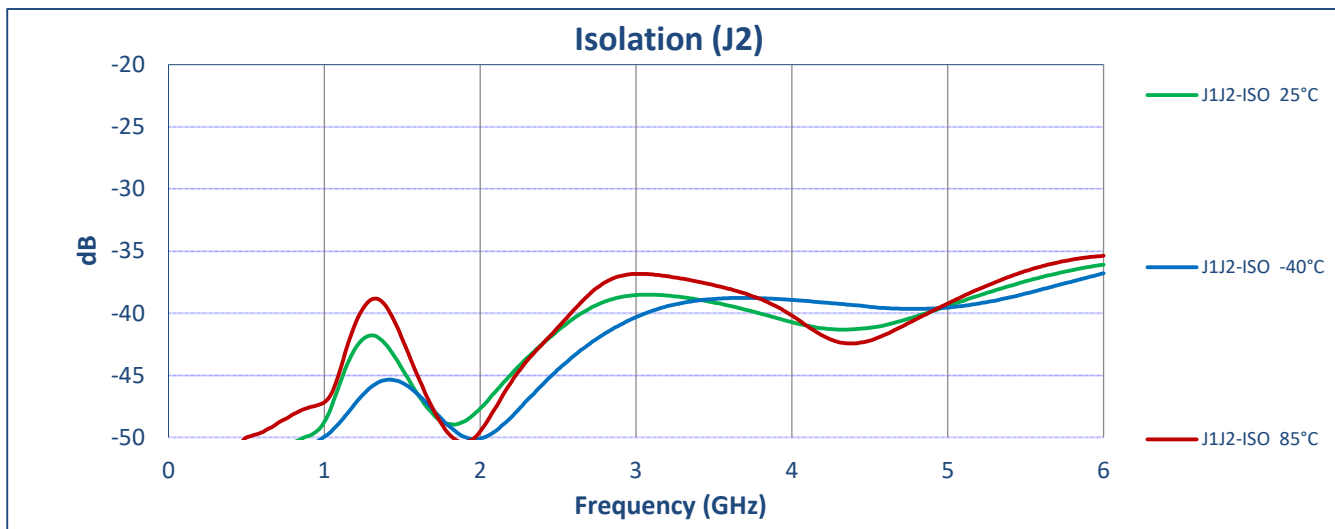
*Not to be switched any higher than 50 kHz [PRI]

Quantic™ PMI PLANAR MONOLITHICS **P2T-10M6G-45-R-5V-SFF-HIP20W-HERM**
TYPICAL CHARACTERISTICS
ON



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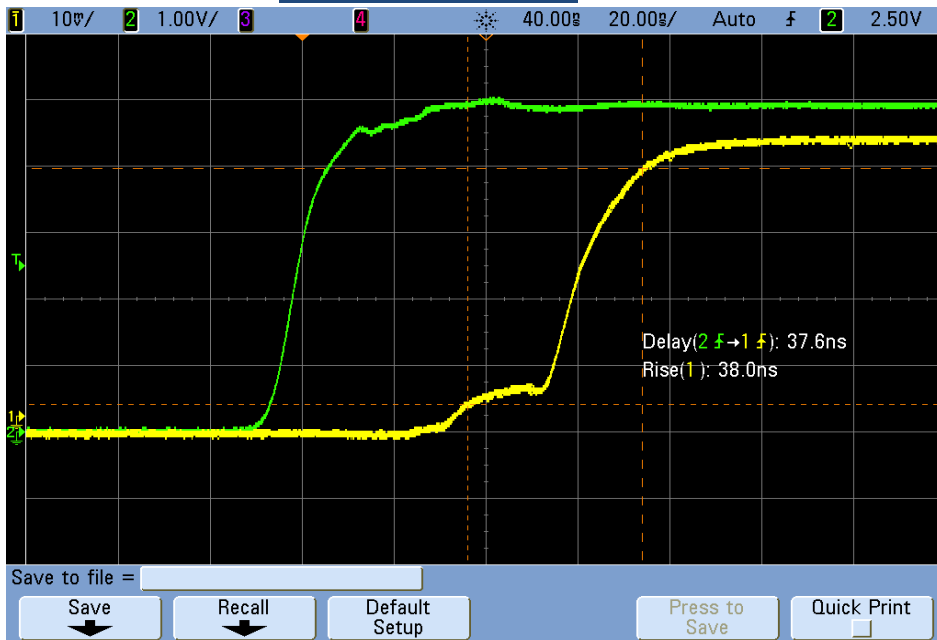
TYPICAL CHARACTERISTICS
ON
P2T-10M6G-45-R-5V-SFF-HIP20W-HERM

Switching Speed Off



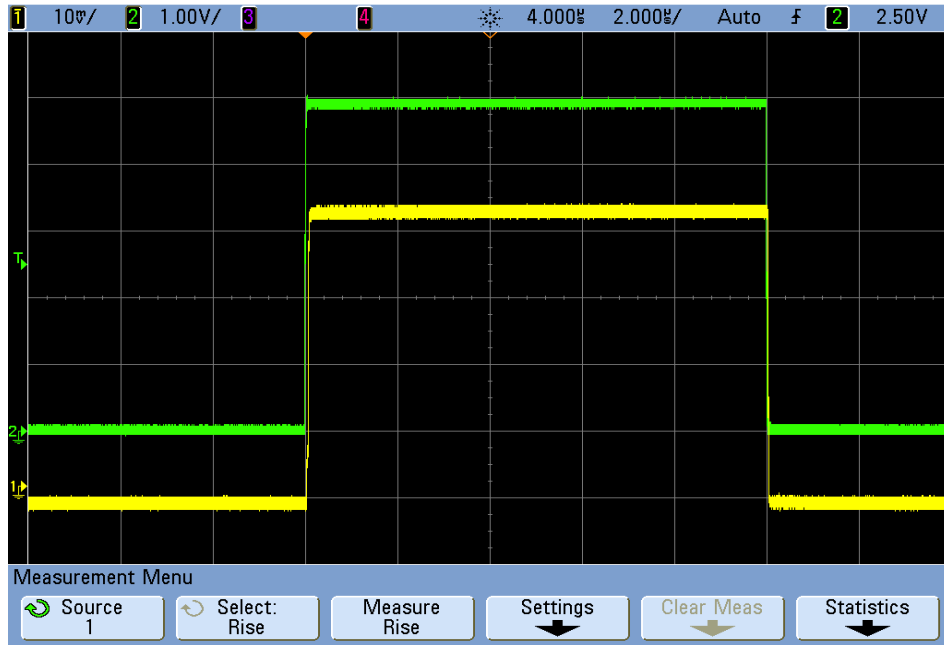
Signal = Yellow
 TTL = Green
 51 ns

Switching Speed On



Signal = Yellow
 TTL = Green
 75.6 ns

Full Pulse



Signal = Yellow
TTL = Green