



TYPICAL CHARACTERISTICS ON P2T-612-80-T-1W-SFF-2

PMI MODEL P2T-612-80-T-1W-SFF-2 IS AN ABSORPTIVE, SINGLE POLE TWO THROW SWITCH THAT OPERATES OVER THE 6 TO 12 GHz FREQUENCY RANGE. THIS UNIT FEATURES LOW INSERTION LOSS WITH 1 WATT OPERATIONAL POWER HANDLING.



Monday, July 20, 2026

Tested By: E. Castillo

Reported By: V. Pratap

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Outline Drawing

DESCRIPTION:

PMI MODEL P2T-612-80-T-1W-SFF-2 IS AN ABSORPTIVE, SINGLE POLE TWO THROW SWITCH THAT OPERATES OVER THE 6 TO 12 GHz FREQUENCY RANGE. THIS UNIT FEATURES LOW INSERTION LOSS WITH 1 WATT OPERATIONAL POWER HANDLING.

SPECIFICATIONS:

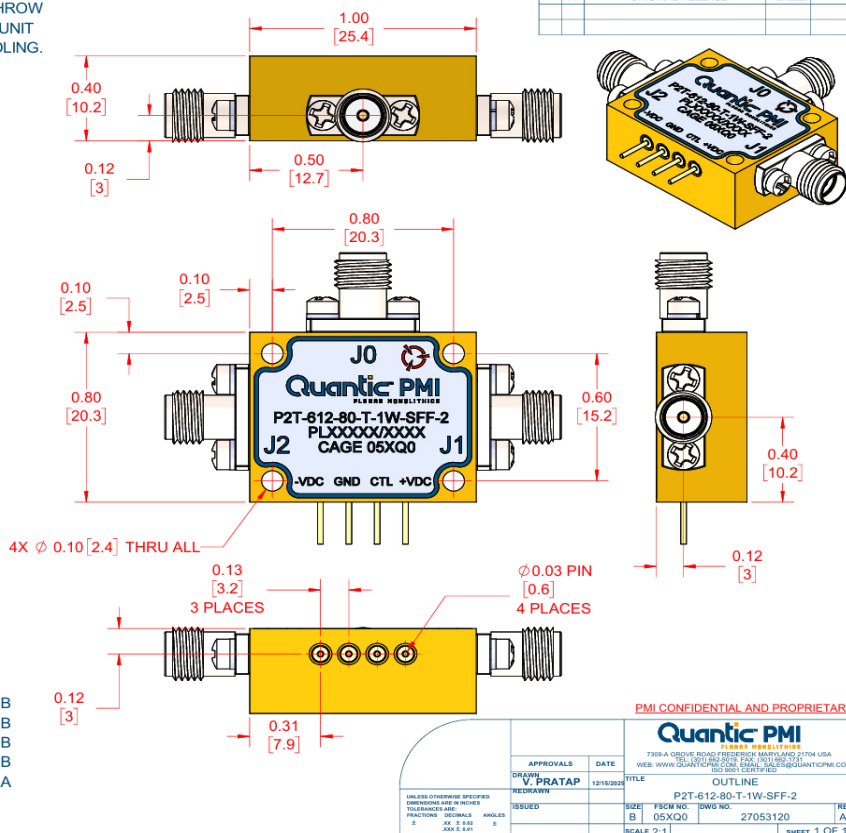
- FREQUENCY RANGE:..... 6 GHz TO 12 GHz
- INSERTION LOSS:..... 2 dB MAX
- ISOLATION:..... 80 dB MIN
- VSWR (ON/OFF):..... 1.5:1 MAX
- SWITCHING SPEED:..... 150 nsec MAX
- P0.1 dB INPUT POWER:..... +30 dBm CW MIN
- LOGIC CONTROL:..... TTL
- DC SUPPLY :..... ±5 VDC
- CONNECTORS:..... SMA FEMALE
- FINISH:..... GOLD PLATED

TTL LOGIC CONTROL TABLE	
CTL	FUNCTION
1	J0 TO J1 ON, J0 TO J2 OFF
0	J0 TO J1 OFF, J0 TO J2 ON

ENVIRONMENTAL RATINGS:

- TEMPERATURE:.....-40°C TO +85°C (OPERATING)
 -55°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



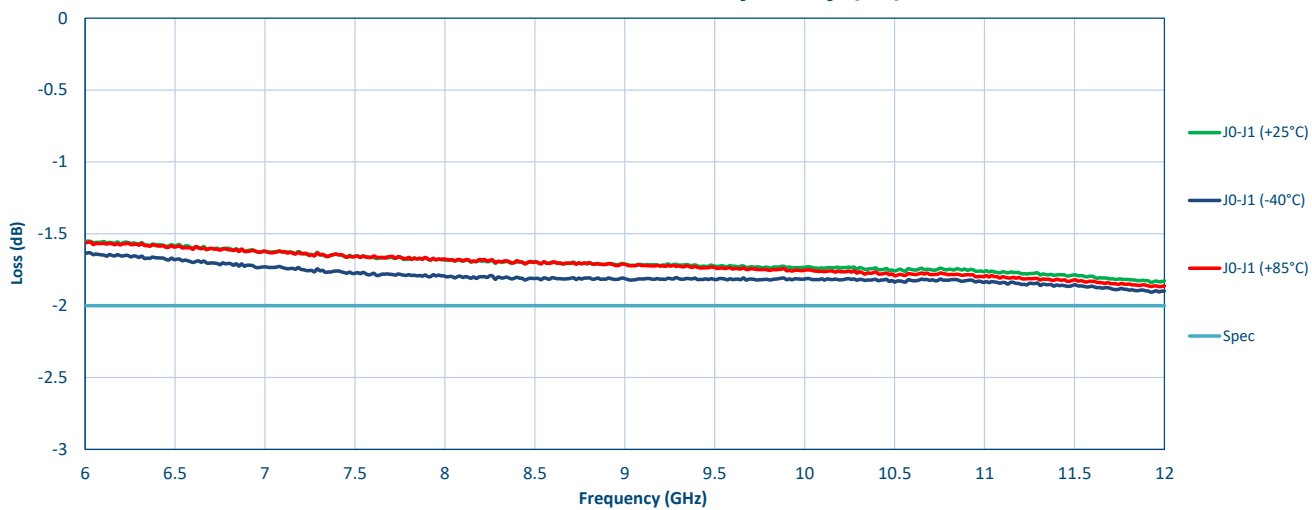
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Technical Specifications

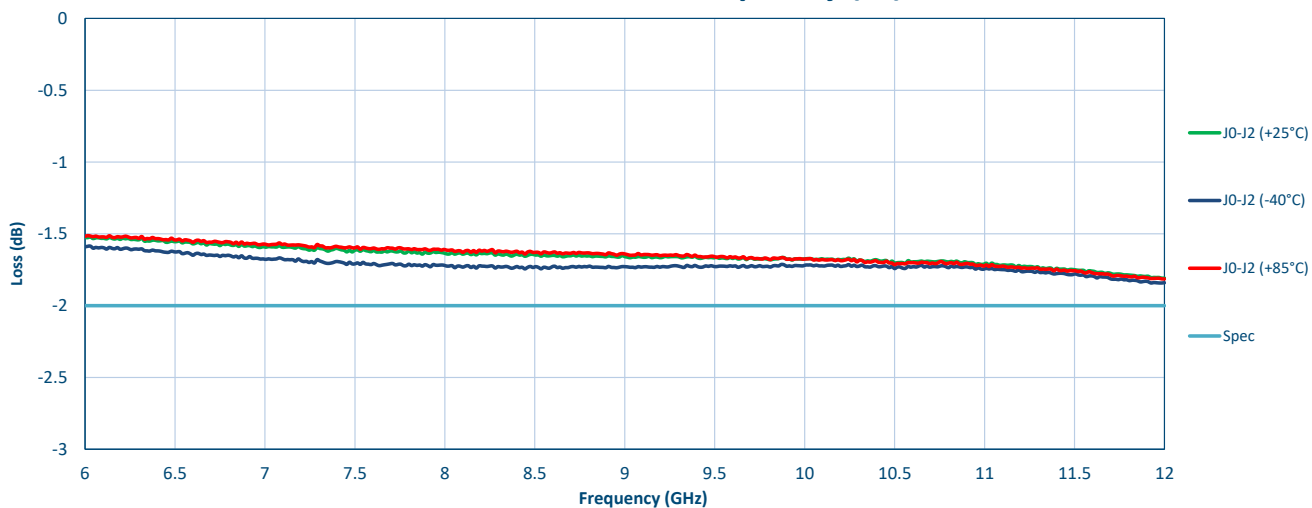
TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS		
			+25°C	-40°C	+85°C
1	Frequency Range:	6 GHz to 12 GHz	6 GHz to 12 GHz	6 GHz to 12 GHz	6 GHz to 12 GHz
2	Insertion Loss:	2.0 dB Max.	1.84 dB	1.91 dB	1.87 dB
			See Graphs	See Graphs	See Graphs
3	VSWR:	1.5:1 Max.	1.45 :1	1.49 :1	1.42 :1
			See Graphs	See Graphs	See Graphs
4	Isolation:	80 dB Min.	88.11 dB	88.16 dB	88.35 dB
			See Graphs	See Graphs	See Graphs
5	P0.1 dBm Input Power:	30 dBm CW MIN	> 30 dBm See Graphs	> 30 dBm See Graphs	30 dBm See Graphs
6	Switching Speed:	150 ns Max.	At 25°C Rise Time = 11.7 ns		
			Fall Time = 12.5 ns		
			Speed ON = 28.8 ns		
			Speed OFF = 35.6 ns		
			See Graphs		
7	Control Signal:	TTL Logic "0" = J0-J1 On TTL Logic "1" = J0-J2 On	Pass	Pass	Pass
8	DC Voltage:	+5 VDC -5 VDC	+5 VDC @ 202 mA -5 VDC @ 0 mA	+5 VDC @ 202 mA -5 VDC @ 0 mA	+5 VDC @ 203 mA -5 VDC @ 0 mA

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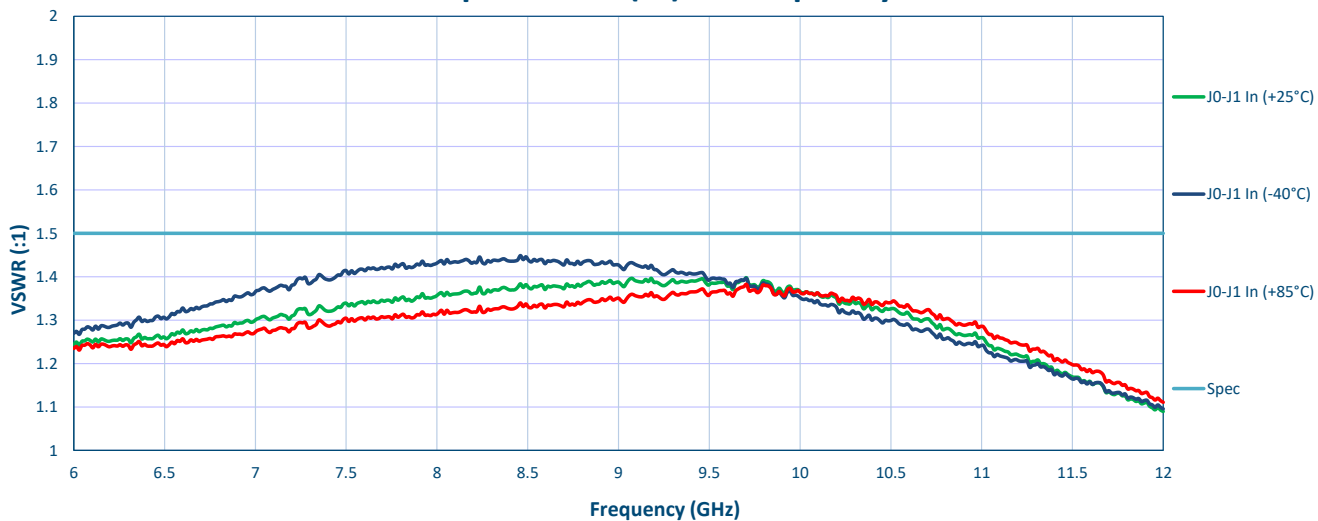
Insertion Loss Vs Frequency (J1)



Insertion Loss Vs Frequency (J2)

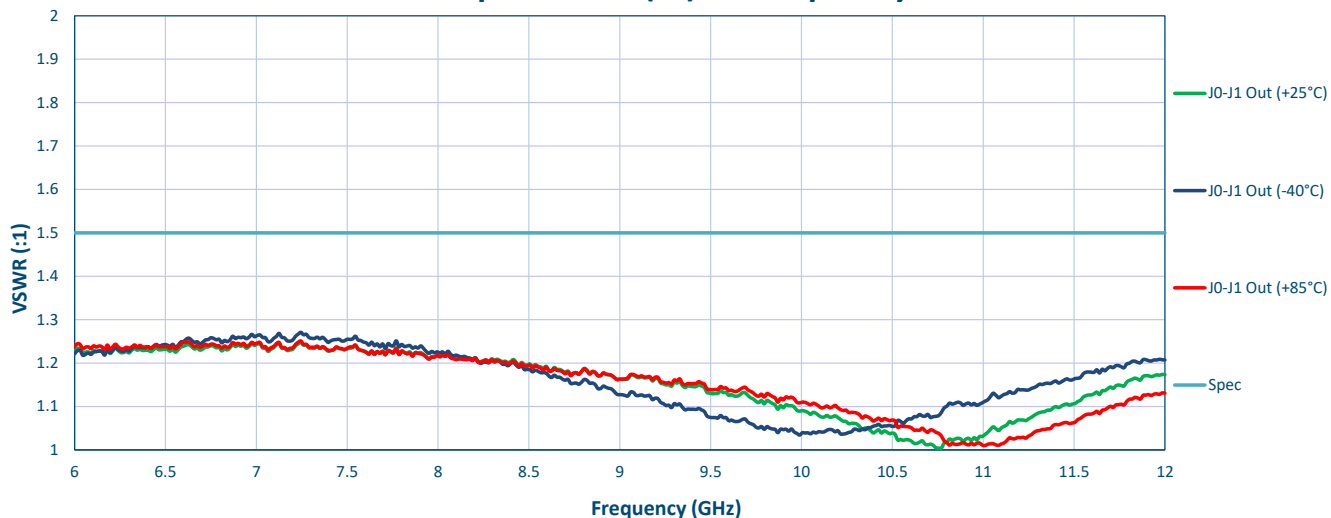


Input VSWR (J1) vs Frequency

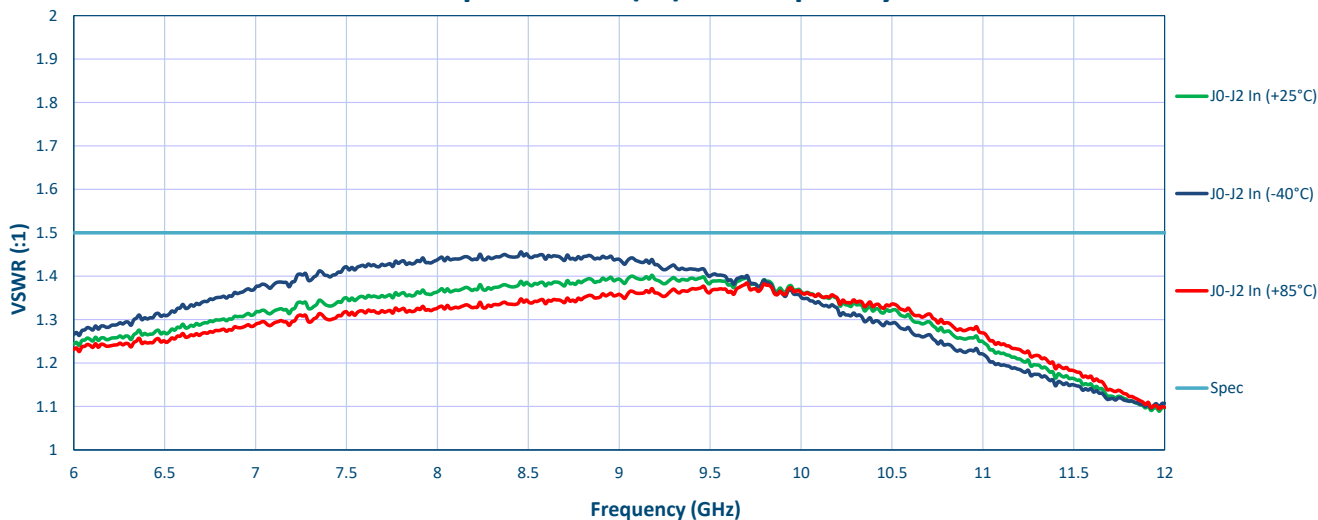


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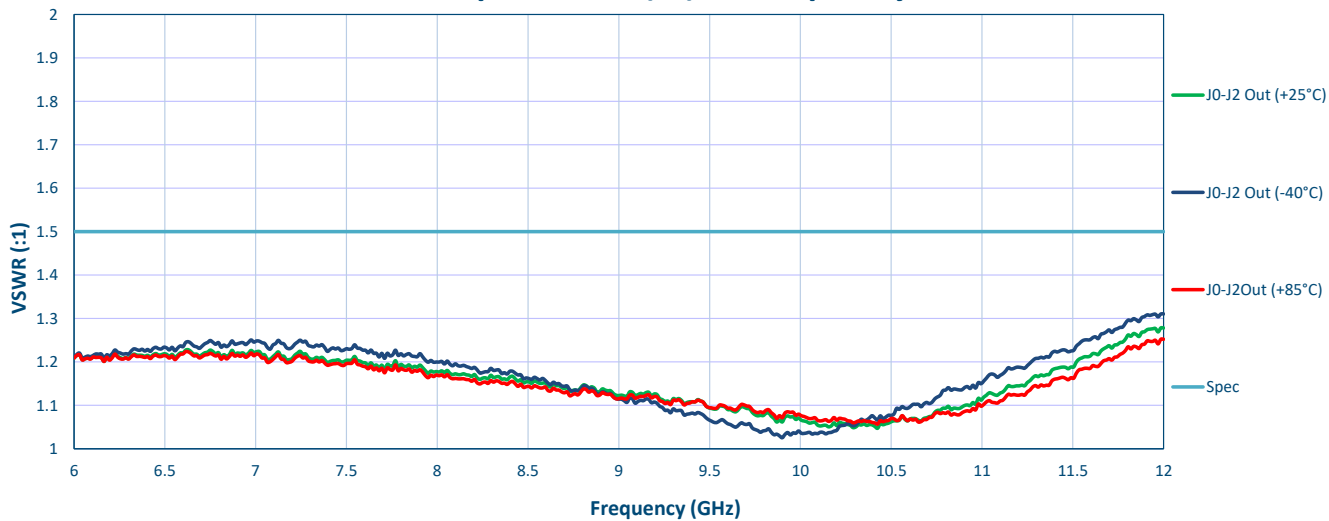
Output VSWR (J1) vs Frequency



Input VSWR (J2) vs Frequency

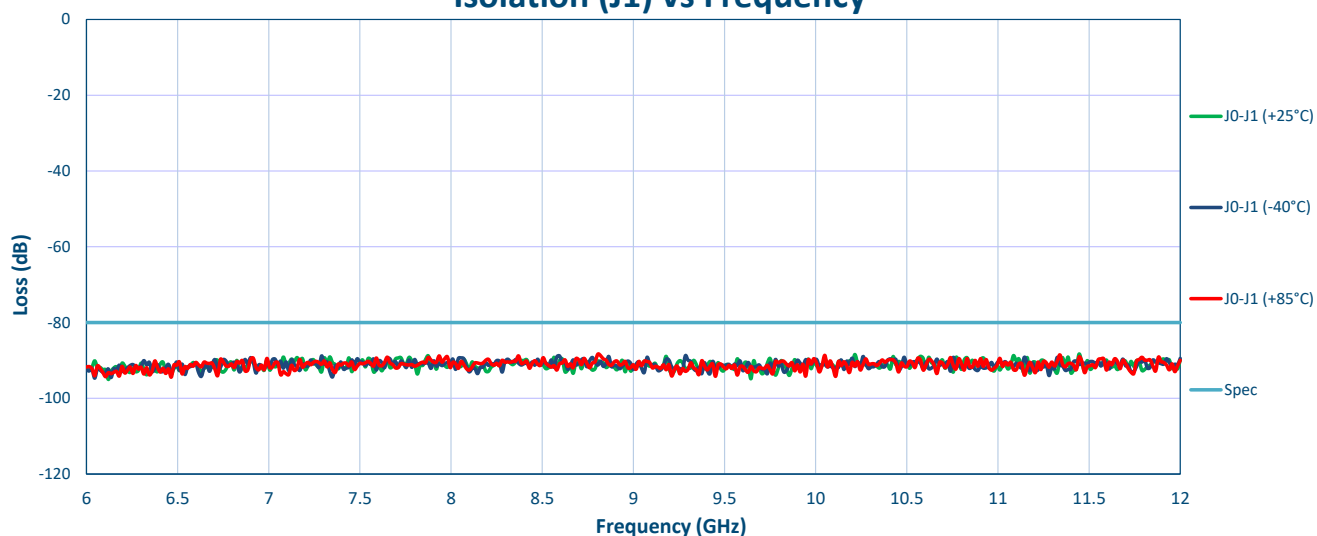


Output VSWR (J2) vs Frequency

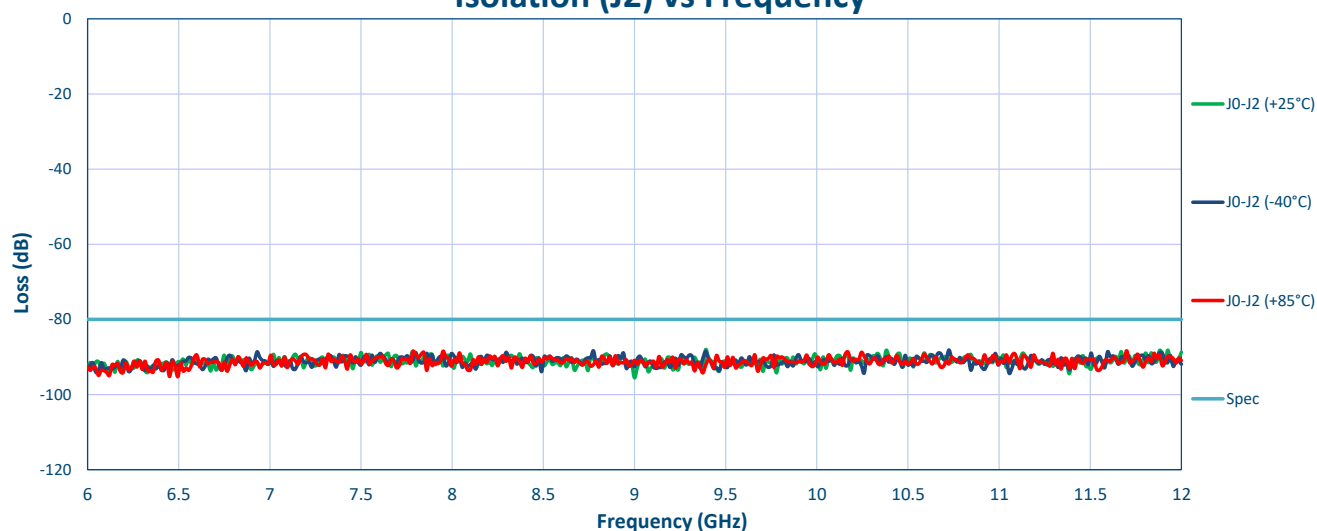


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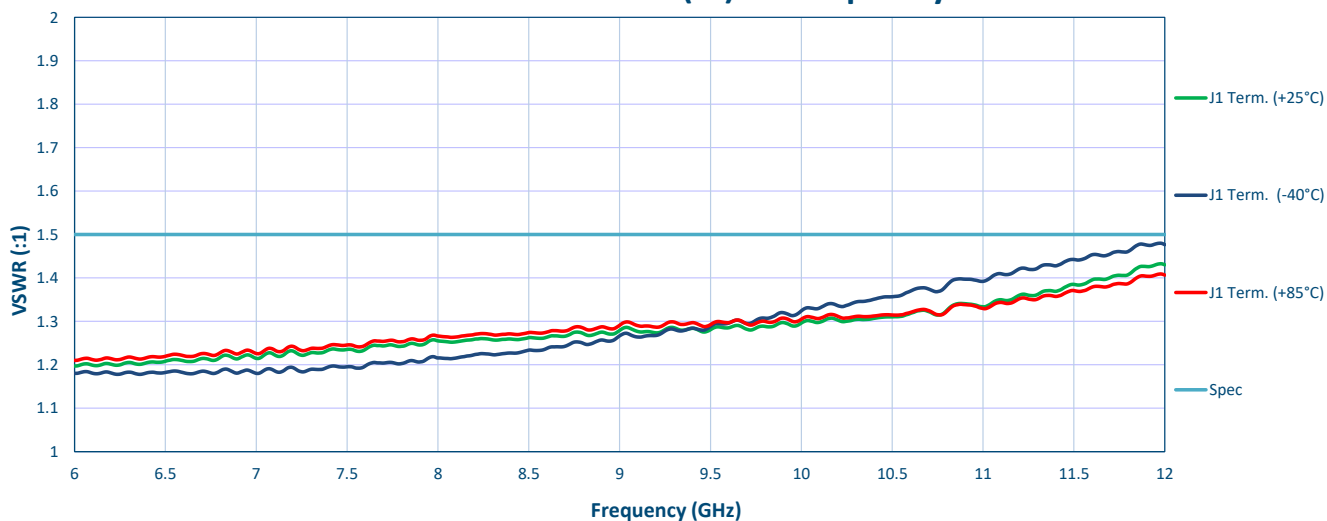
Isolation (J1) vs Frequency



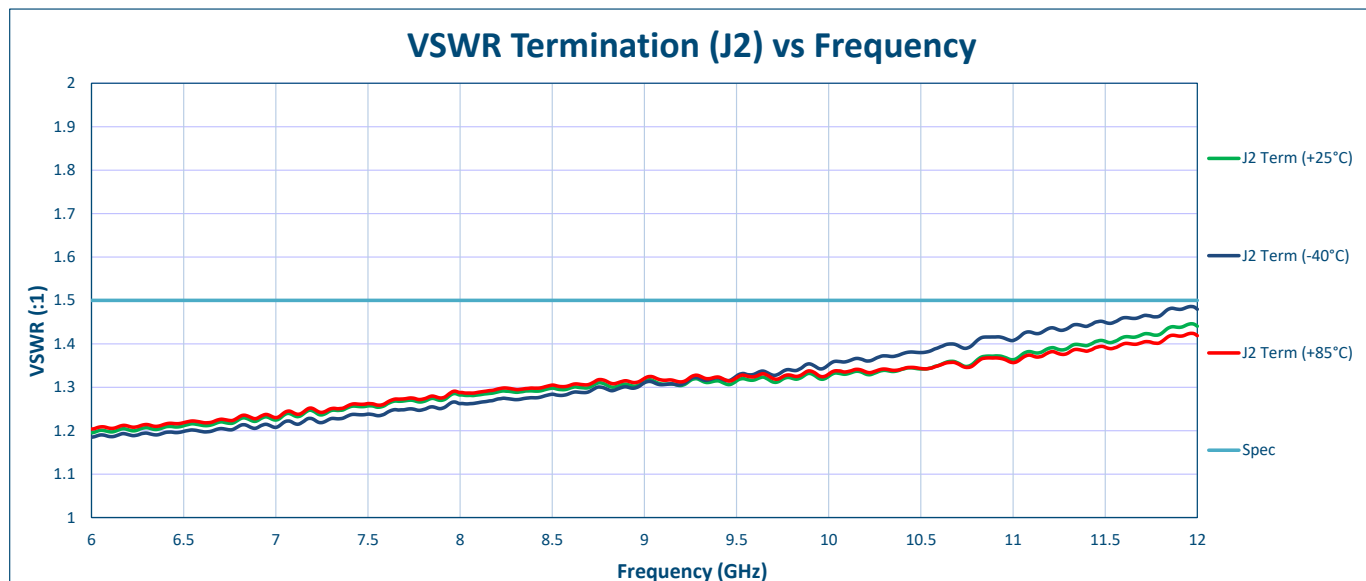
Isolation (J2) vs Frequency



VSWR Termination (J1) vs Frequency



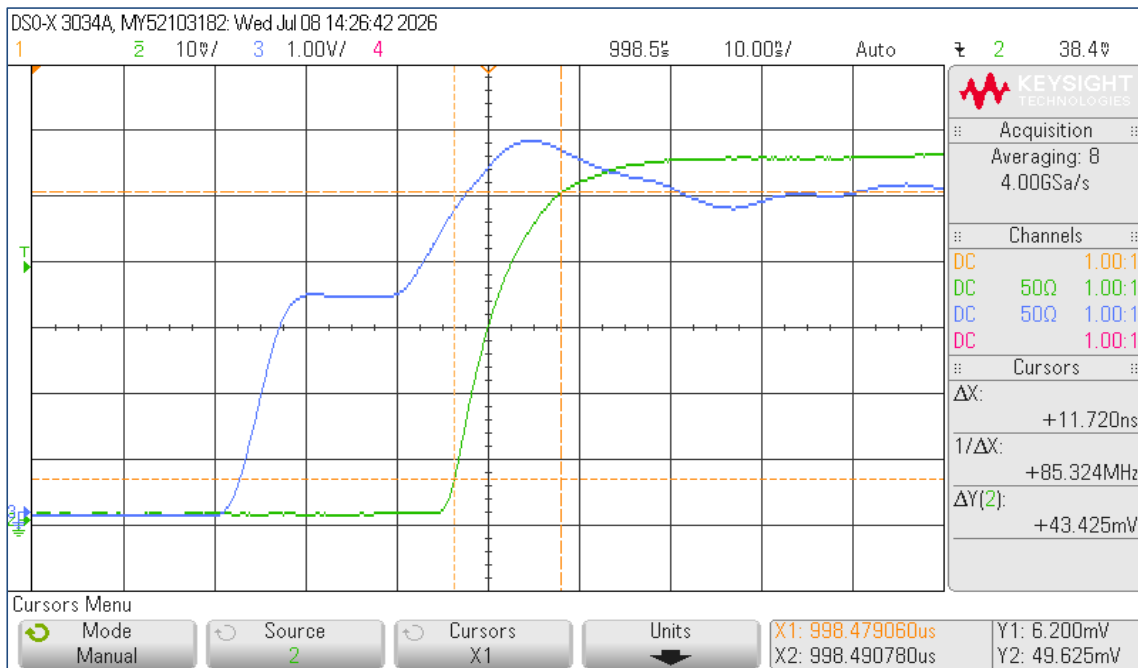
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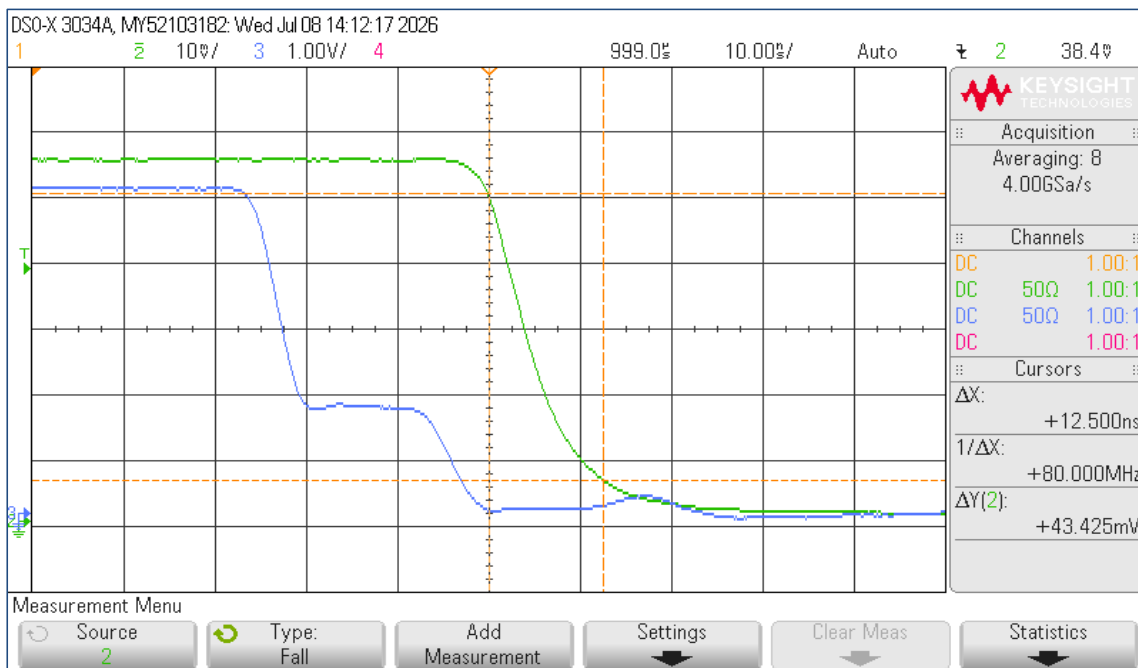
Rise Time

Measured value 11.7 ns



Fall Time

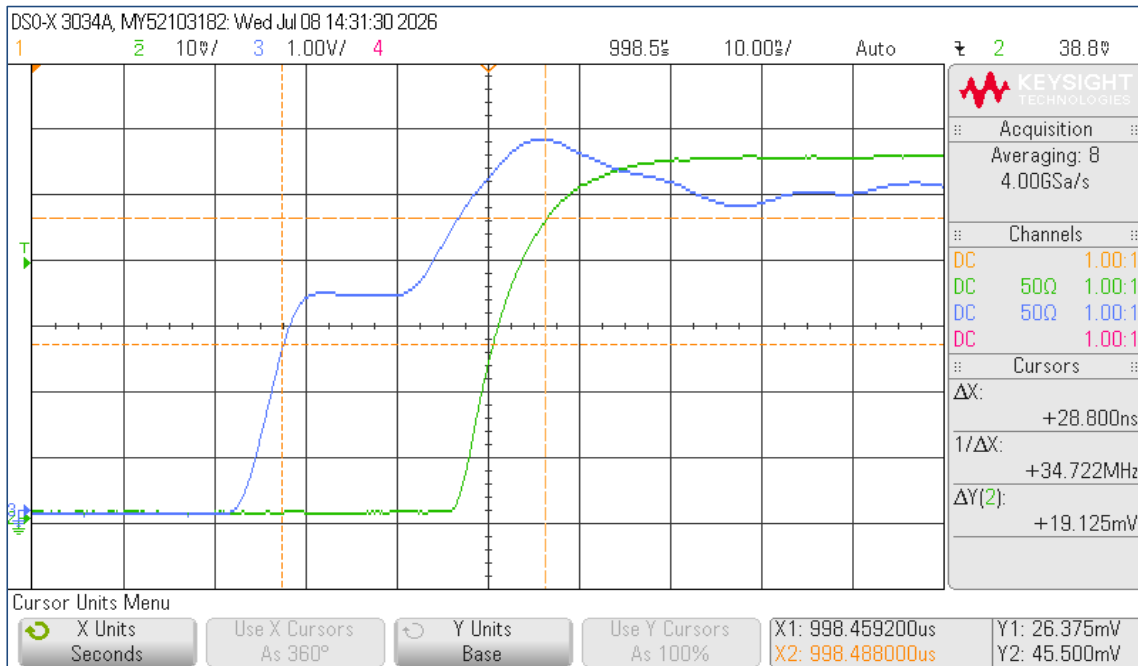
Measured value 12.5 ns



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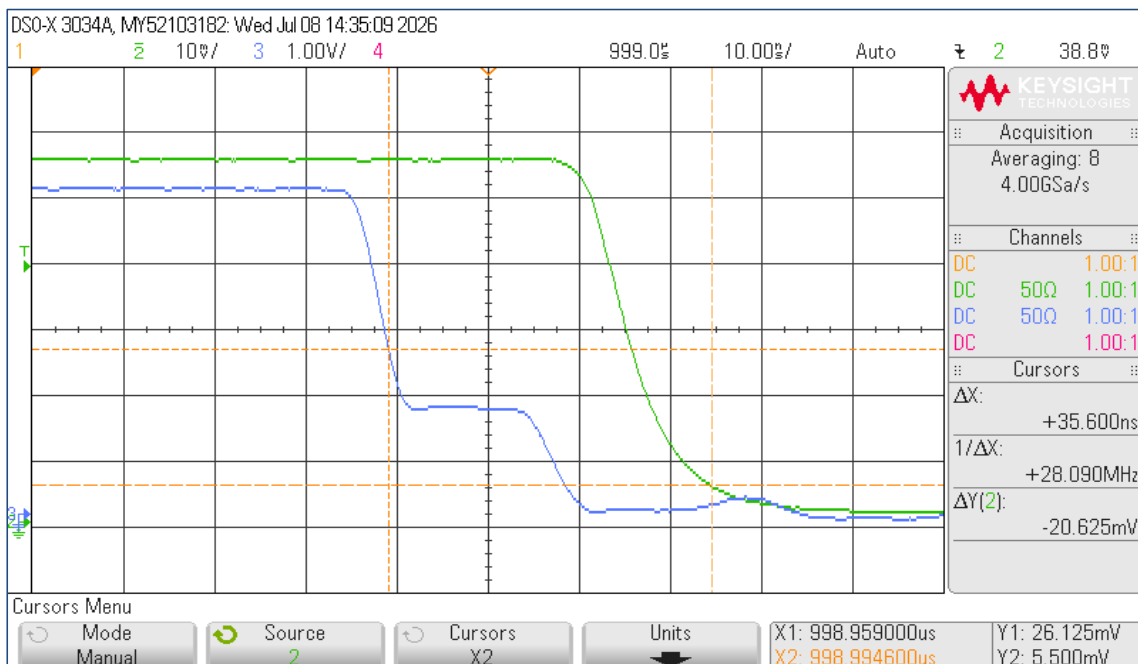
Speed ON Time

Measured value 28.8 ns



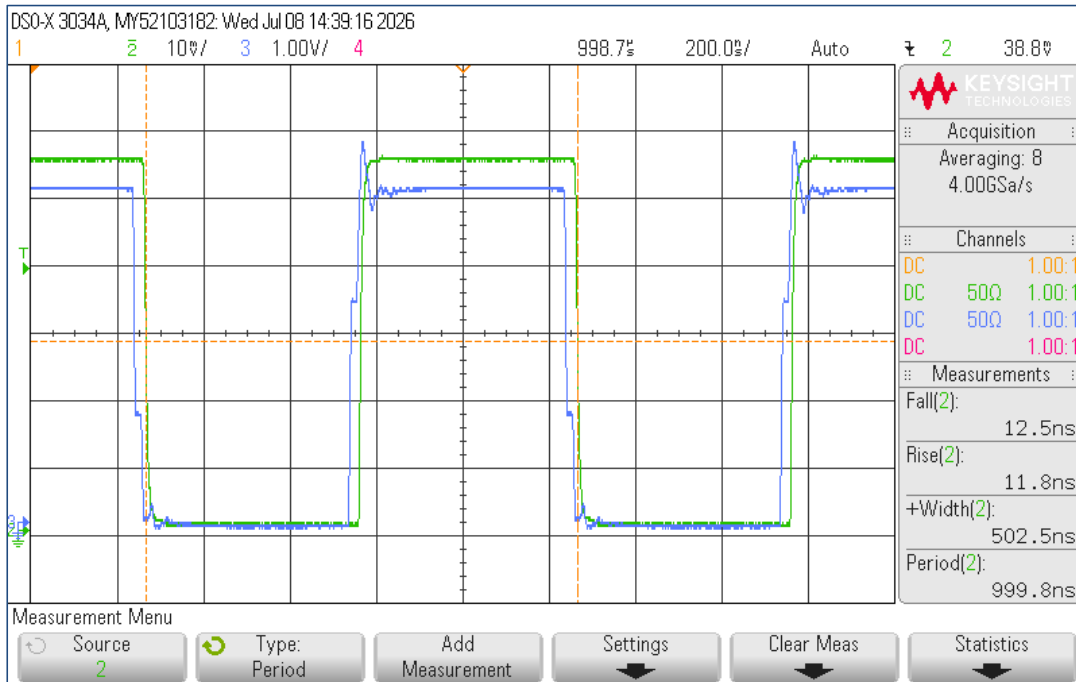
Speed OFF Time

Measured value 35.6 ns



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Full Pulse

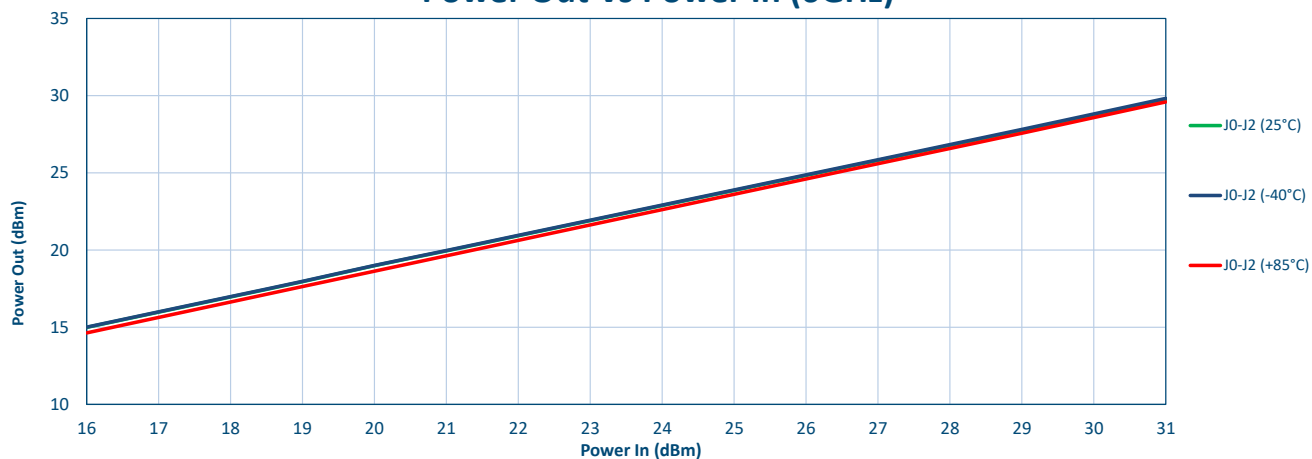


Video Transients

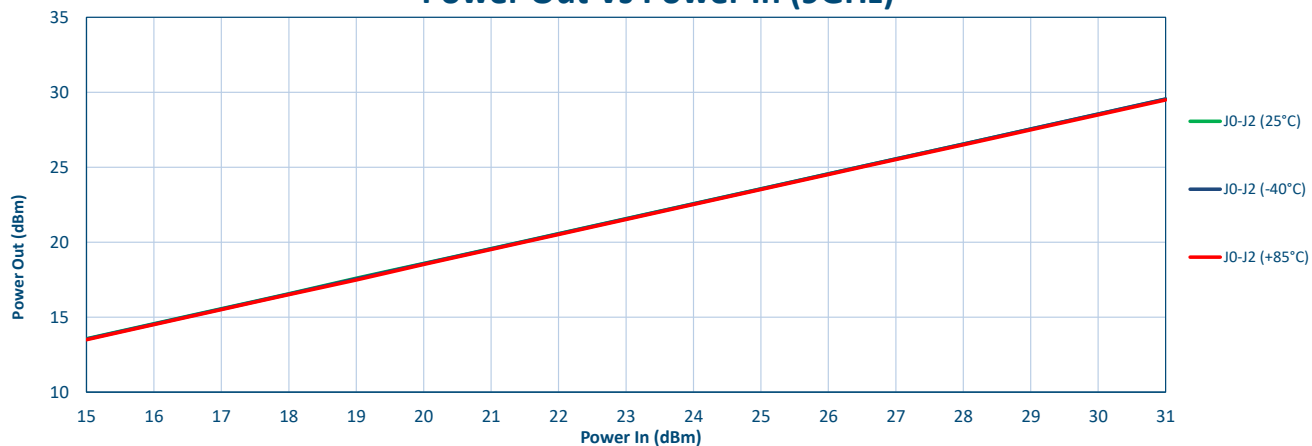


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Power Out Vs Power In (6GHz)



Power Out Vs Power In (9GHz)



Power Out Vs Power In (12GHz)

