

**TYPICAL CHARACTERISTICS
ON
P2T-3040-60-R-292FF-RC**

PMI MODEL P2T-3040-60-R-292FF-RC IS A SINGLE POLE, TWO THROW SWITCH THAT OPERATES OVER THE 30GHz TO 40GHz FREQUENCY RANGE. THIS MODEL INCORPORATES A TTL COMPATIBLE DRIVER FOR EASY SYSTEM INTEGRATION.



REPORTED BY Shane O'Neill
AUTHOR Noor Azhar
DATE March 26th 2023

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PRODUCT FEATURE

DESCRIPTION:

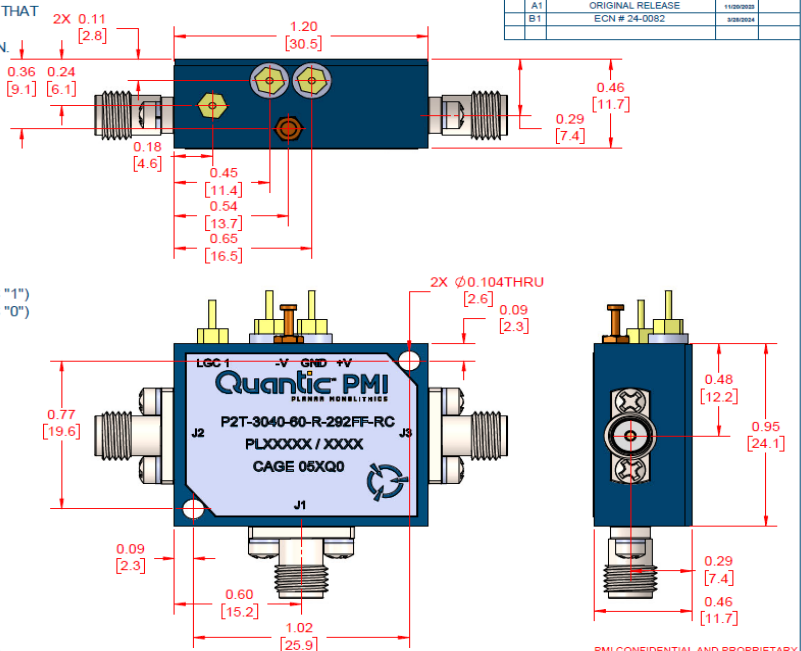
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SPECIFICATIONS:

- FREQUENCY RANGE:..... 30 TO 40 GHz
- ISOLATION:..... 60 dB MIN
- INSERTION LOSS:..... 3.5 dB MAX @ 25°C
4.0 dB MAX OVER TEMP
- VSWR (ON POSITION):..... 2.0:1 TYP, 2.5:1 MAX
- SWITCHING SPEED:..... 100ns MAX
- RF POWER CAPABILITY:..... +20 dBm MAX
- POWER SUPPLY :..... +5VDC @ 75 mA TYP
-5VDC @ 50 mA TYP
- CONTROL SIGNAL:..... J1-J2 - ON (LGC1 "0"), J1-J2 - OFF (LGC "1")
J1-J3 - ON (LGC1 "1"), J1-J3 - OFF (LGC "0")
- CONNECTORS:..... 2.92mm FEMALE CONNECTORS
- CONTROL CONNECTIONS:..... SOLDER PINS
- SIZE:..... (L) 1.2" X (W) 0.95" X (H) 0.46"
- FINISH:..... PAINTED BLUE

ENVIRONMENTAL RATINGS:

- TEMPERATURE:..... -54°C TO +95°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



DATE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	11/09/2002	
	B1	ECN # 24-0082	03/09/04	

THE USER SHALL SPECIFY THE OPERATING AND STORAGE TEMPERATURE AND HUMIDITY RANGES.		PART NO.	
DATE: JUL 2 2004	BY: J. AZHAR	APPROVALS:	DATE:
MATERIAL:	DESIGN:	S. AZHAR	11/09/02
PREP:	ISSUED:	REWORK:	
NEXT ASSY:	USED ON:		
APPLICATION:			

PMI CONFIDENTIAL AND PROPRIETARY

Quantic PMI
PLANAR MONOLITHICS

7309-A GROVE ROAD, FREDERICK, MD 21704 USA
TEL: (301) 662-5019 FAX: (301) 662-1731
WWW.QUANTICPMI.COM

TITLE: P2T-3040-60-R-292FF-RC
OUTLINE

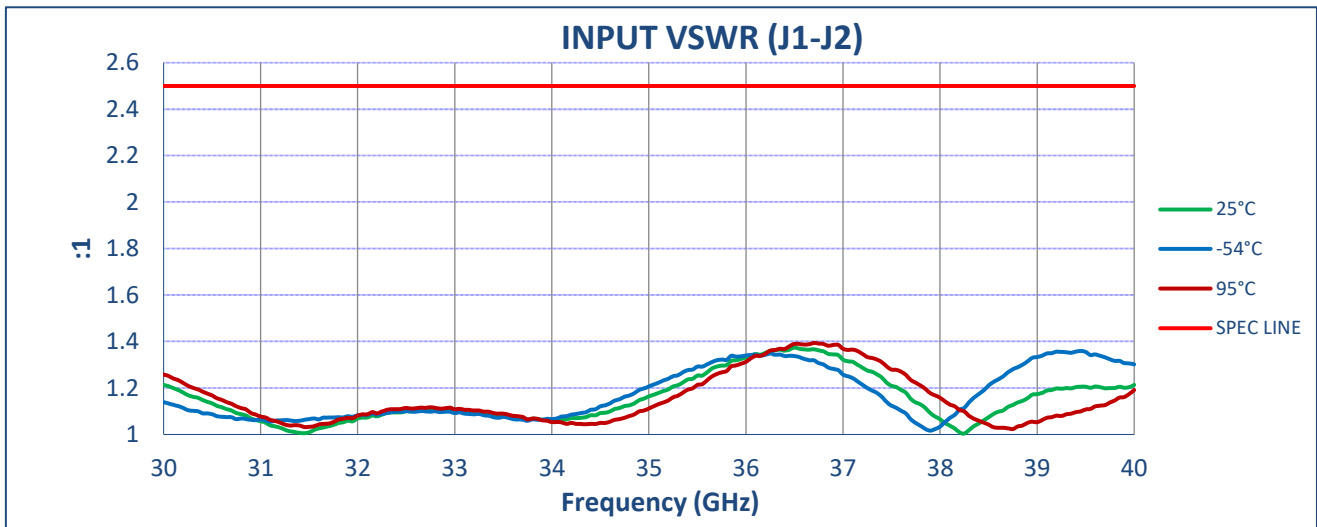
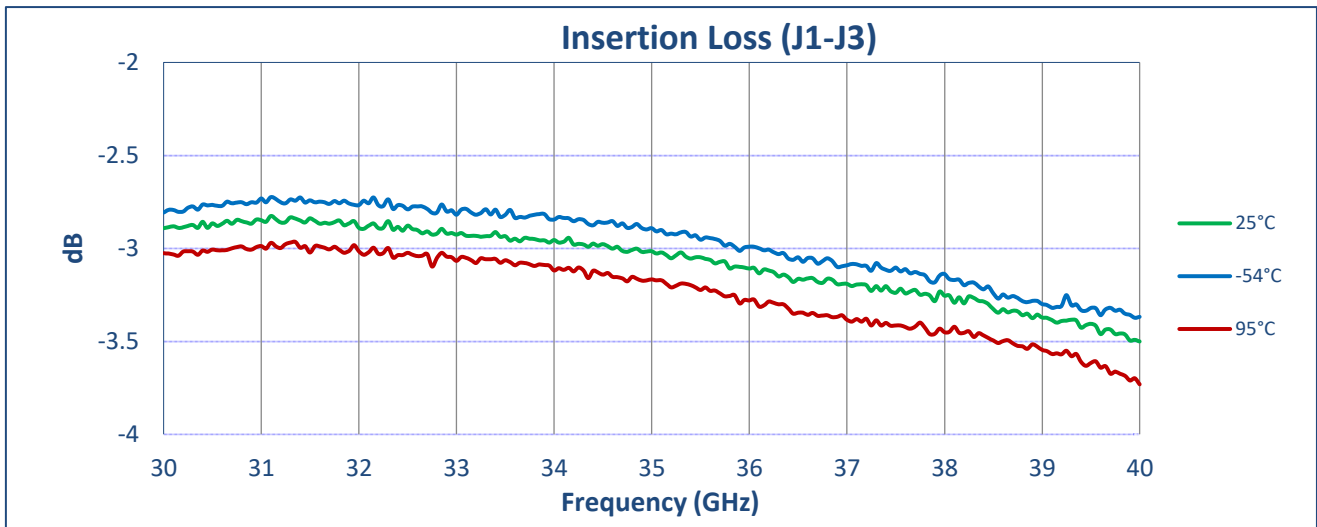
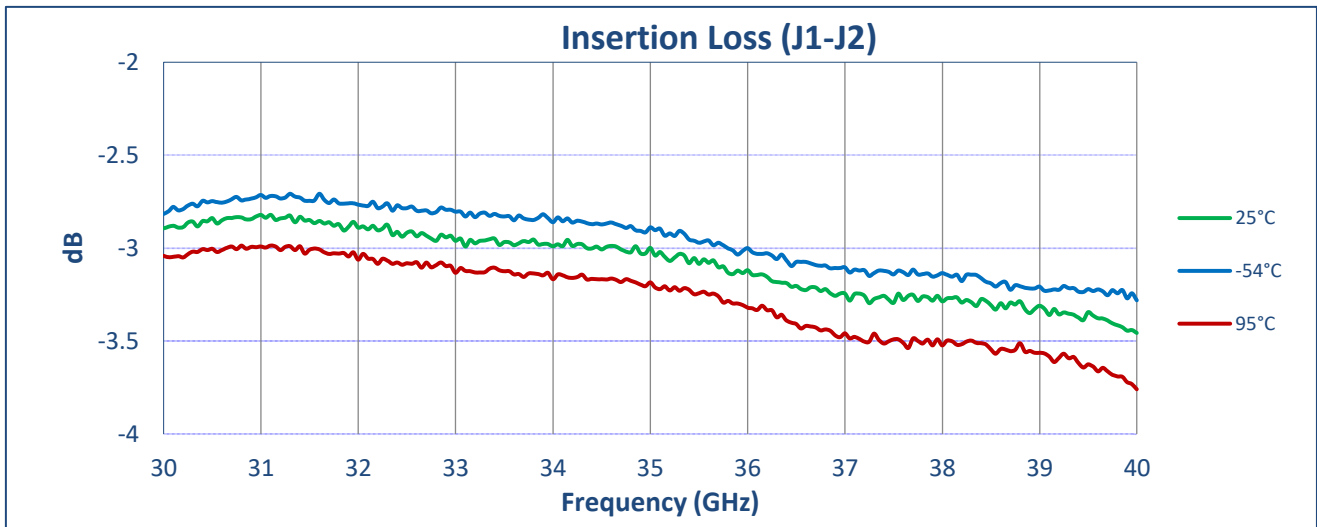
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PART NO.: 05XQ0
DWG NO.: 27047600
SCALE: 5:1

SHEET 1 OF 1

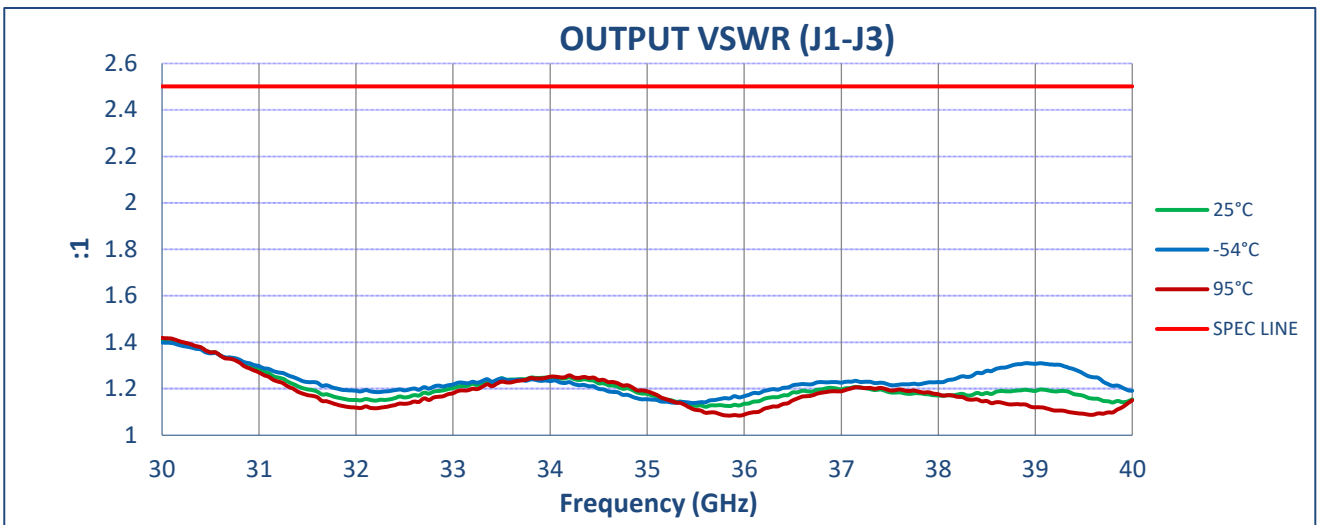
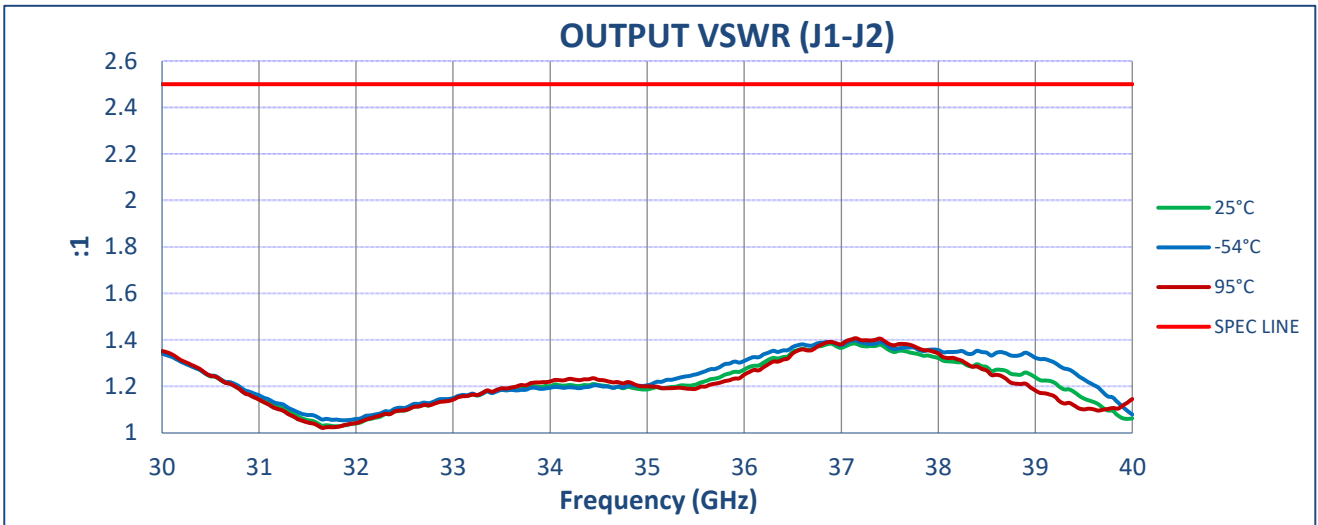
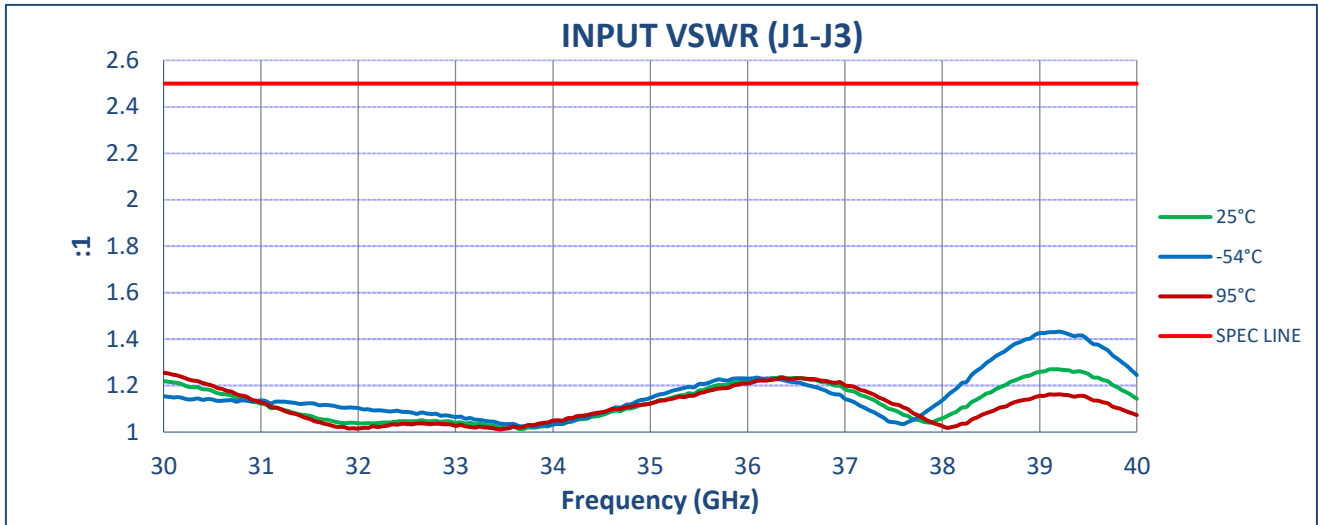
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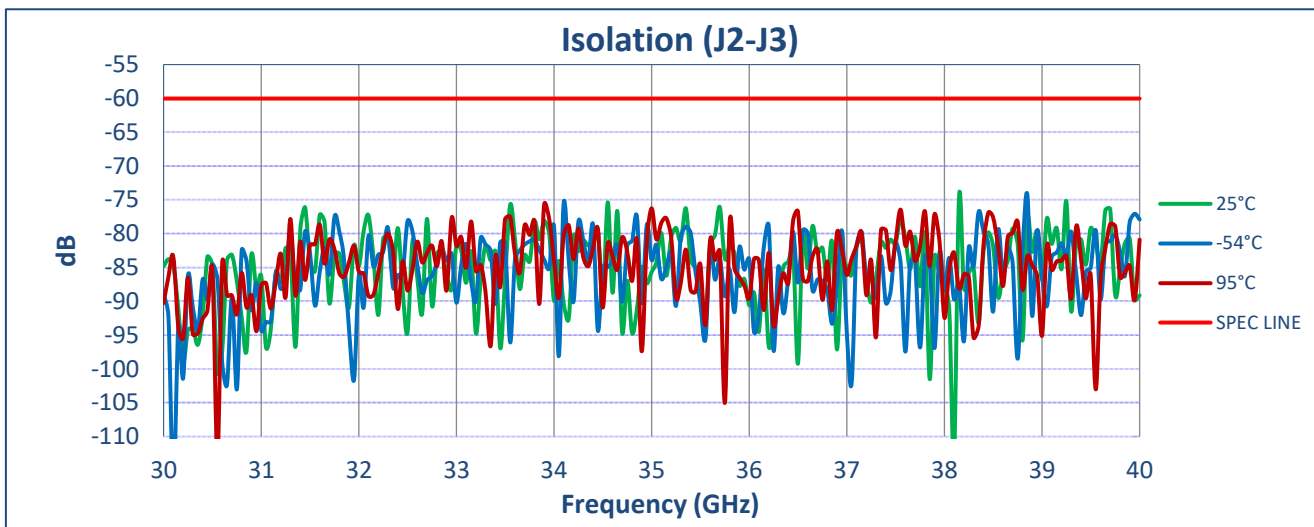
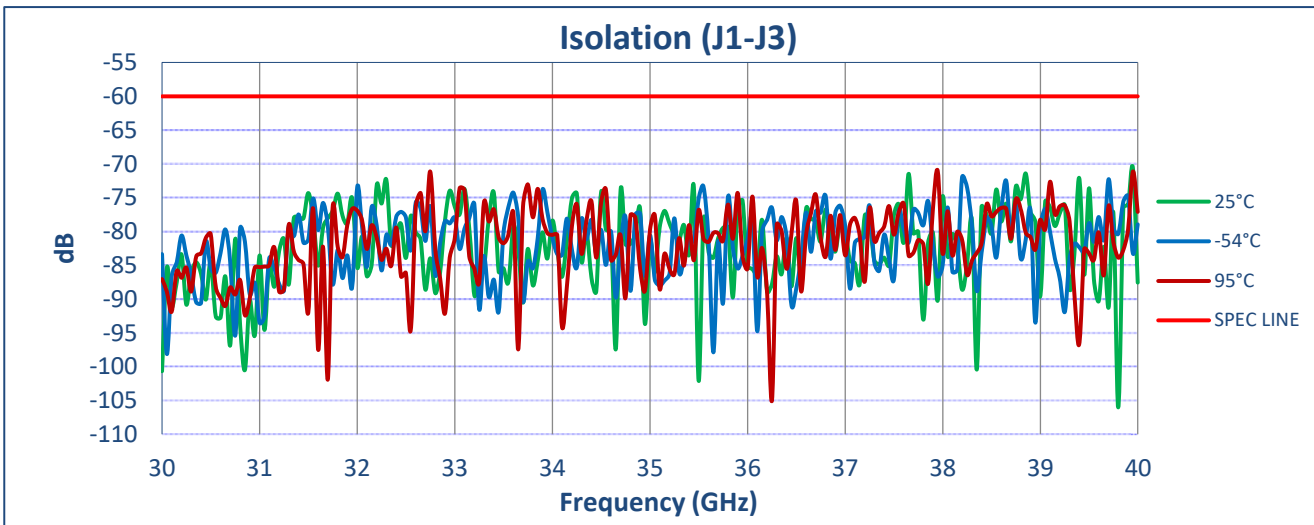
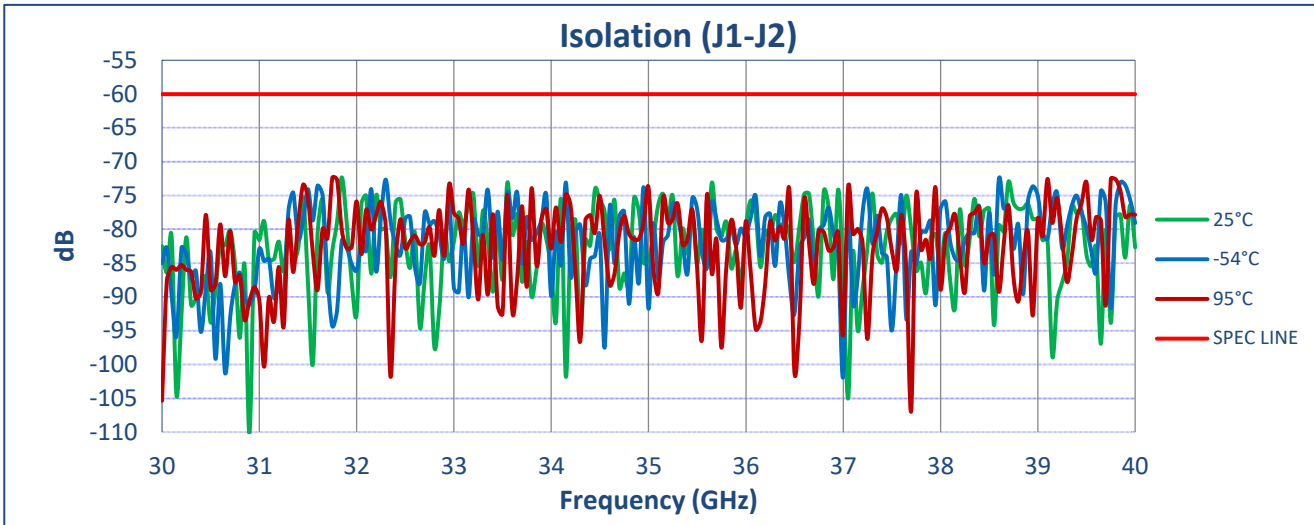
TEST DATA

TEST ITEM	PARAMETERS	SPECIFIED VALUE	TEST RESULTS		
			25°C	-54°C	95°C
1	Frequency Range	30 GHz to 40 GHz	30 GHz to 40 GHz		
2	Isolation	60 dB Min.	70.6 dB	72 dB	71 dB
3	Insertion Loss	3.5 dB Max. @ 25C 4.0 dB Max OVER TEMP.	3.5 dB	3.37 dB	3.76 dB
4	VSWR (On Position)	2.5:1 Max. 2:1 Typ.	1.37:1 In 1.41:1 Out	1.43:1 In 1.4:1 Out	1.39:1 In 1.42:1 Out
5	Switching Speed (@18 GHz)	100 ns Max.	Delay: (26.4ns On , 16.6ns Off) Switching: (2.1ns Rise , 3.7ns Fall)		
6	Power Supply	5 V @ 75 mA Typ. -5 V @ 50 mA Typ.	5 V @ 63 mA -5 V @ 40 mA	5 V @ 68 mA -5 V @ 48 mA	5 V @ 58 mA -5 V @ 36 mA
7	RF Power Capability	+20 dBm	+20 dBm	+20 dBm	+20 dBm

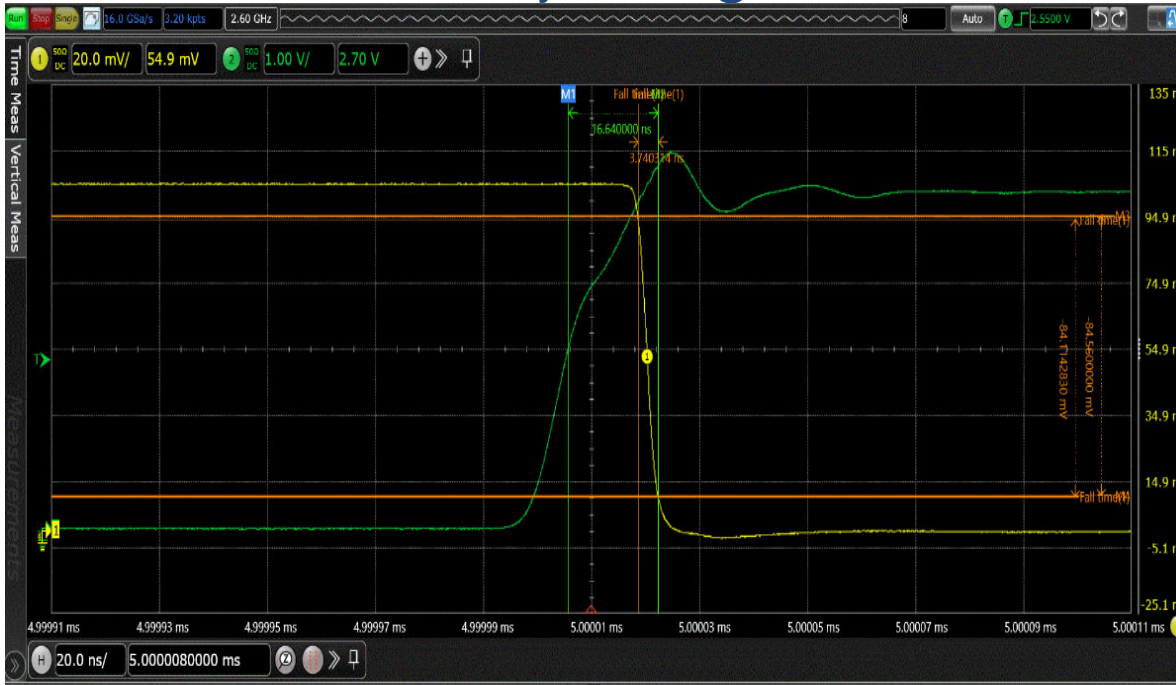


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Delay Off & Fall @ 18 GHZ



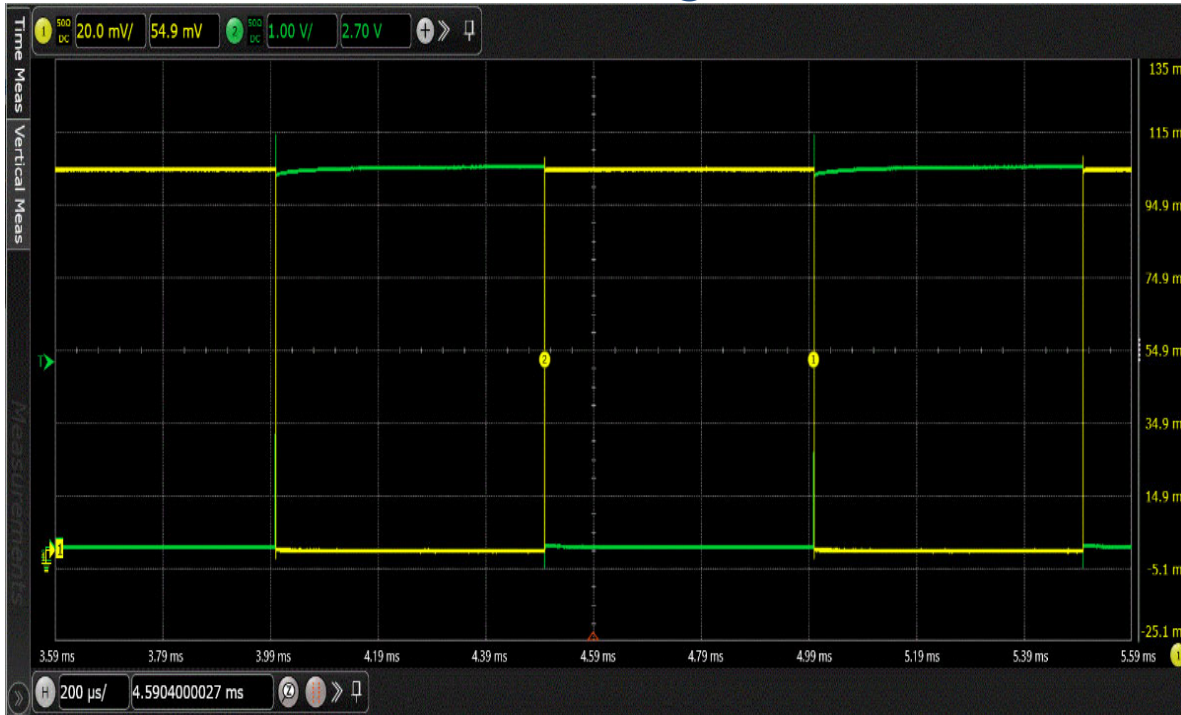
Yellow: RF
Green: TTL
Delay Off: 16.6ns
Fall: 3.7ns

Delay On & Rise @ 18 GHz



Yellow: RF
Green: TTL
Delay On: 26.4ns
Rise: 2.1ns

Full Pulse @ 18 GHZ



High Power Test Graph @ 30 GHz

