



TYPICAL CHARACTERISTICS  
ON  
PEC-100M6G-3T-SFF-ROHS

PMI MODEL PEC-100M6G-3T-SFF-ROHS IS A SINGLE POLE, THREE THROW NON-REFLECTIVE SWITCH DESIGNED TO OPERATE OVER THE 100 MHz TO 6 GHz FREQUENCY RANGE.



Tested By:  
Shane O'Neill  
Reported By  
Dylan Hoschar  
Date:  
3/25/2026

7309-A Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731  
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## PRODUCT FEATURE

**DESCRIPTION:**

PMI MODEL PEC-100M6G-3T-SFF-ROHS IS A SINGLE POLE, THREE THROW NON-REFLECTIVE SWITCH DESIGNED TO OPERATE OVER THE 100 MHz TO 6 GHz FREQUENCY RANGE

**SPECIFICATIONS:**

- FREQUENCY RANGE:..... 100 MHz TO 6 GHz (OPTIMIZED FOR 640 MHz)
- INSERTION LOSS:..... 2.0 dB MAX @ 640 MHz
- VSWR:..... 2.0:1 MAX
- ISOLATION:..... 70 dB MIN
- P1dB:..... +23 dBm MIN
- SWITCHING SPEED:..... 100 ns MAX
- POWER SUPPLY:..... +5 VDC @ 250 mA MAX  
-12 VDC @ 120 mA MAX
- CONTROL LOGIC:..... TTL LOGIC, SEE TRUTH TABLE
- CONNECTORS:..... SMA FEMALE CONNECTORS
- FINISH:..... PAINTED BLUE
- ROHS/REACH:..... COMPLIANT

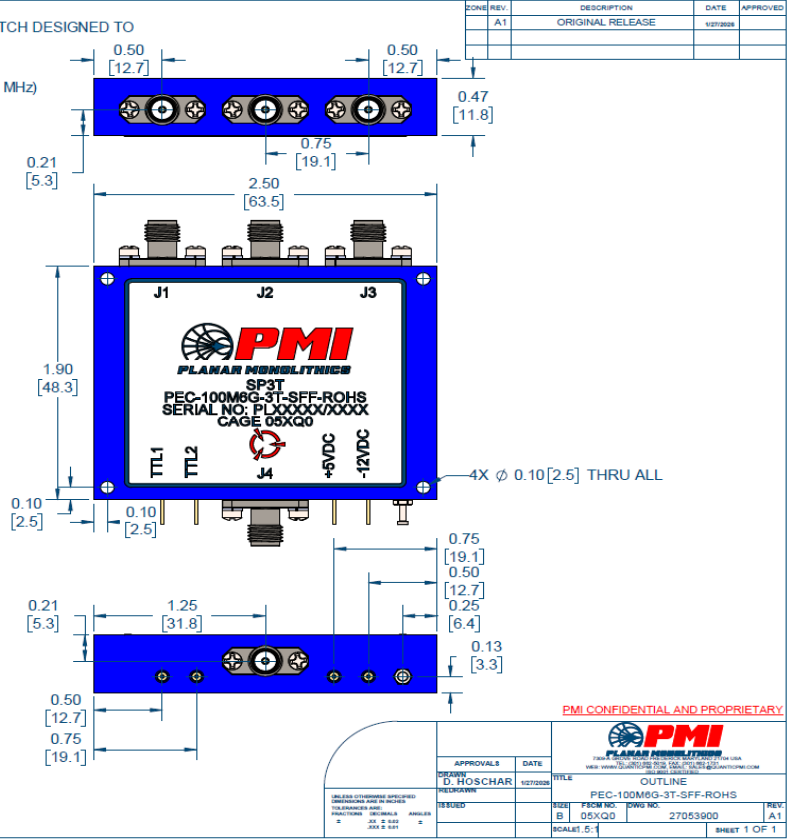
LOGIC TABLE		
TTL1	TTL2	PATH
0	0	J1-J4
0	1	J2-J4
1	0	J3-J4
1	1	UNDEFINED

**ENVIRONMENTAL RATINGS:**

- TEMPERATURE:..... -45°C TO +85°C (OPERATING)  
-54°C TO +125°C (STORAGE)
- HUMIDITY:..... MIL-STD-202, METHOD 103B COND. B
- SHOCK:..... MIL-STD-202, METHOD 213B COND. C
- VIBRATION:..... MIL-STD-202, METHOD 204D COND. B
- SALT FOG:..... MIL-STD-202, METHOD 101D+EST COND. B
- FUNGUS:..... MIL-STD-810, METHOD 508.5
- EM/EMC:..... MIL-STD-461E

NOTE: ENVIRONMENTAL TESTING AND ESS WILL BE MET, BUT ACTUAL TESTING IS NOT DONE BY PMI  
ACTUAL SCREENING IS AVAILABLE FOR AN ADDITIONAL CHARGE

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



PMI CONFIDENTIAL AND PROPRIETARY

APPROVALS	DATE	TITLE
DESIGN: D. HOSCHAR	1/27/2008	OUTLINE
TESTED:		

SIZE	FORM NO.	DWG NO.	REV.
B	05XQ0	27053900	A1

SCALE: 5:1 SHEET 1 OF 1

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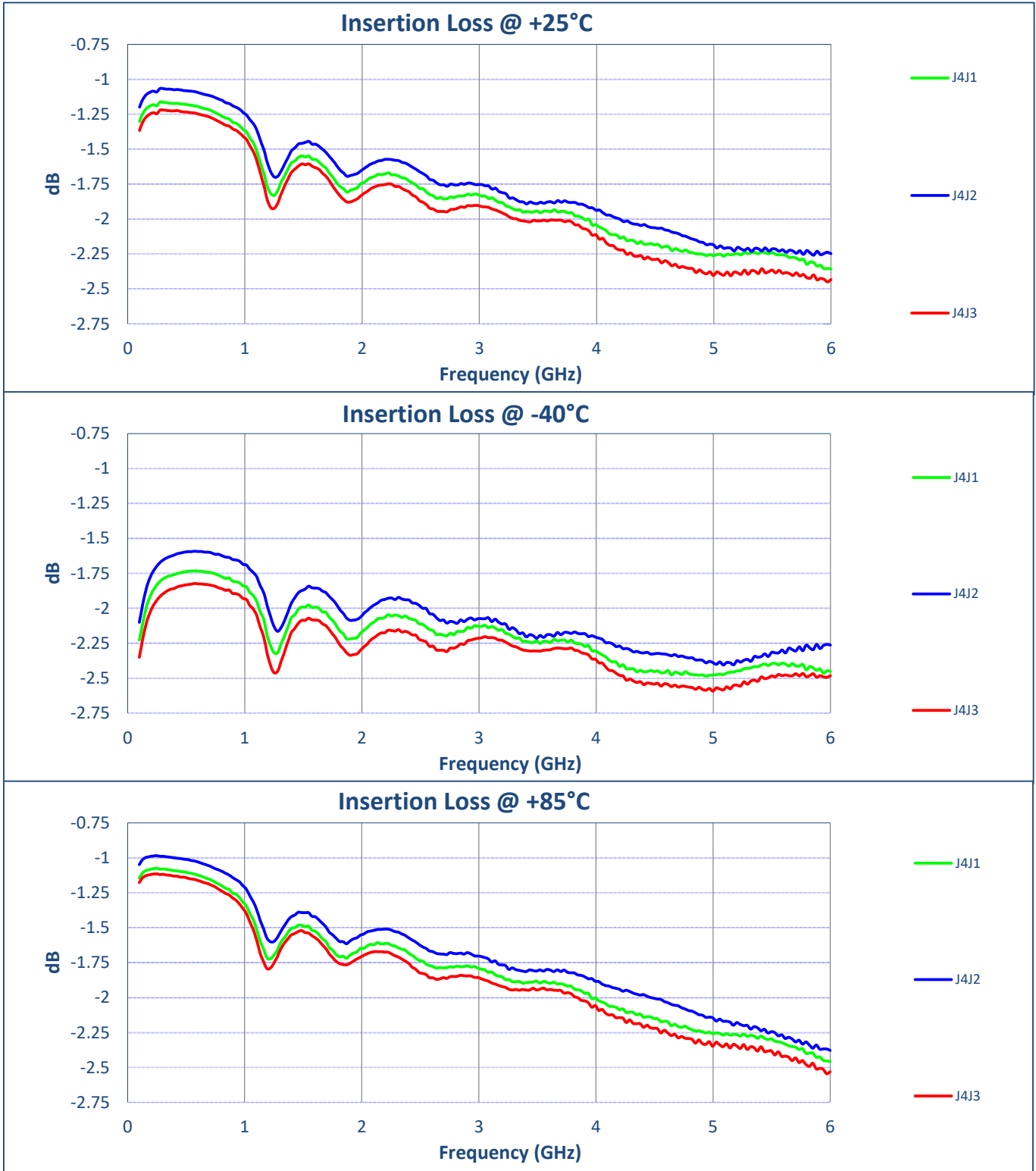
TEST DATA

TEST ITEM	PARAMETERS	SPECIFIED VALUE	TEST RESULTS		
			25°C	-40°C	85°C
1	Frequency Range	0.1 GHz to 6 GHz	0.1 GHz to 6 GHz	0.1 GHz to 6 GHz	0.1 GHz to 6 GHz
2	Insertion Loss	2 dB Max. @ 640 MHz	1.2 dB	1.7 dB	1.1 dB
3	VSWR: In/Out	2:1 Max.	1.35:1 In 1.4:1 Out	1.82:1 In 1.84:1 Out	1.28:1 In 1.42:1 Out
4	Isolation	70 dB Min.	103.7 dB	103 dB	101.2 dB
5	P1dB	23 dBm Min.	>27 dBm See Graphs		
6	Switching Speed Max	100 ns Max.	86.5 ns See Graphs	46.4 ns See Graphs	57.2 ns See Graphs
7	Power Supply	5 V @ 250 mA Max. -12 V @ 120 mA Max.	5 V @ 68 mA -12 V @ 38 mA	5 V @ 68 mA -12 V @ 38 mA	5 V @ 69 mA -12 V @ 38 mA
8	Control Signal	TTL LOGIC SEE TRUTH TABLE	Pass	Pass	Pass

TRUTH TABLE		
TTL1	TTL2	PATH
0	0	J1-J4
0	1	J2-J4
1	0	J3-J4
1	1	UNDEFINED



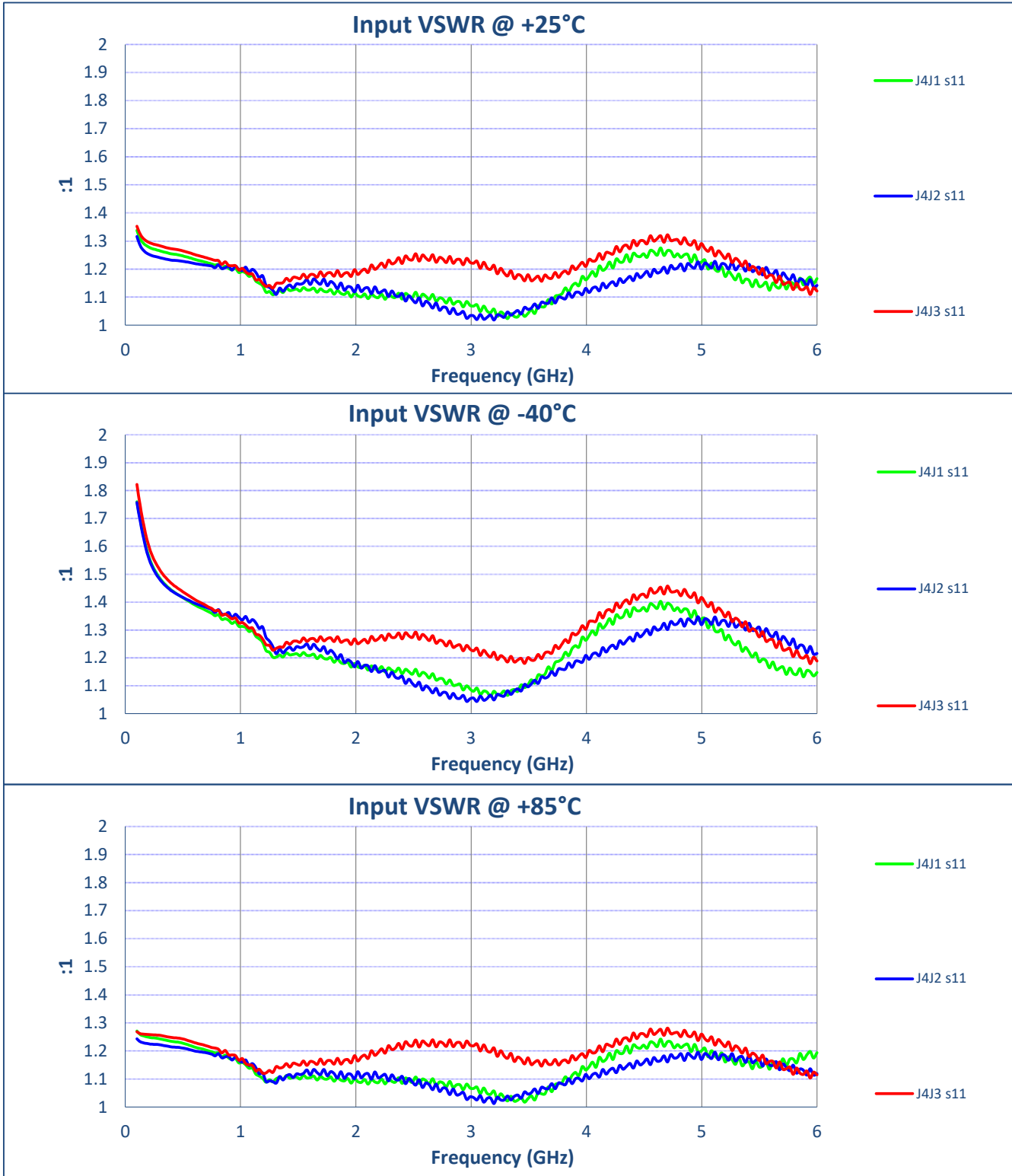
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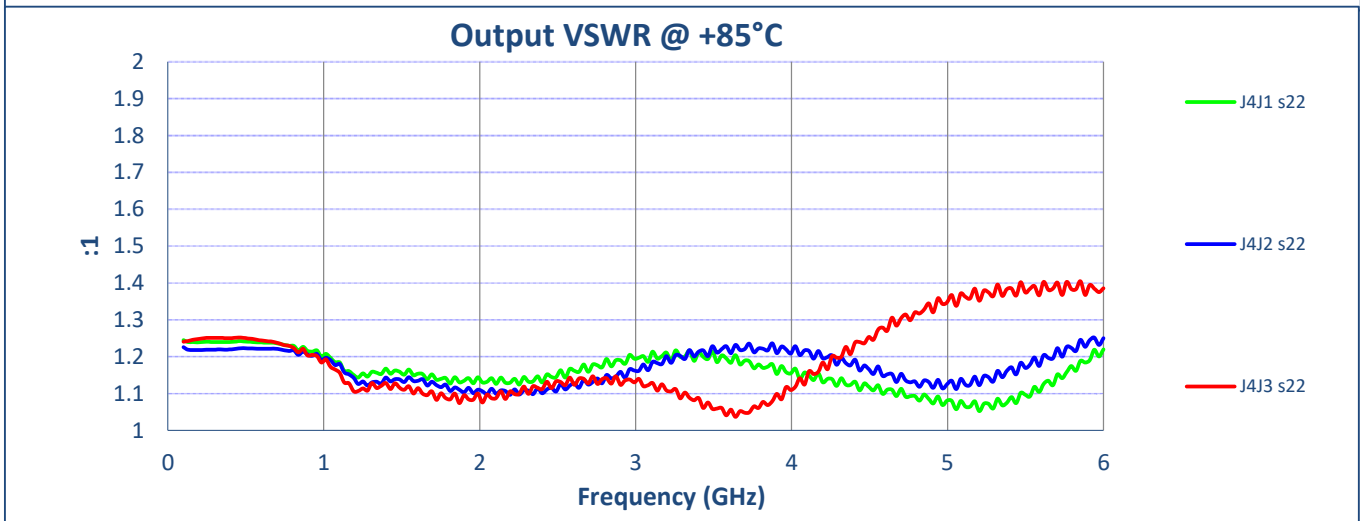
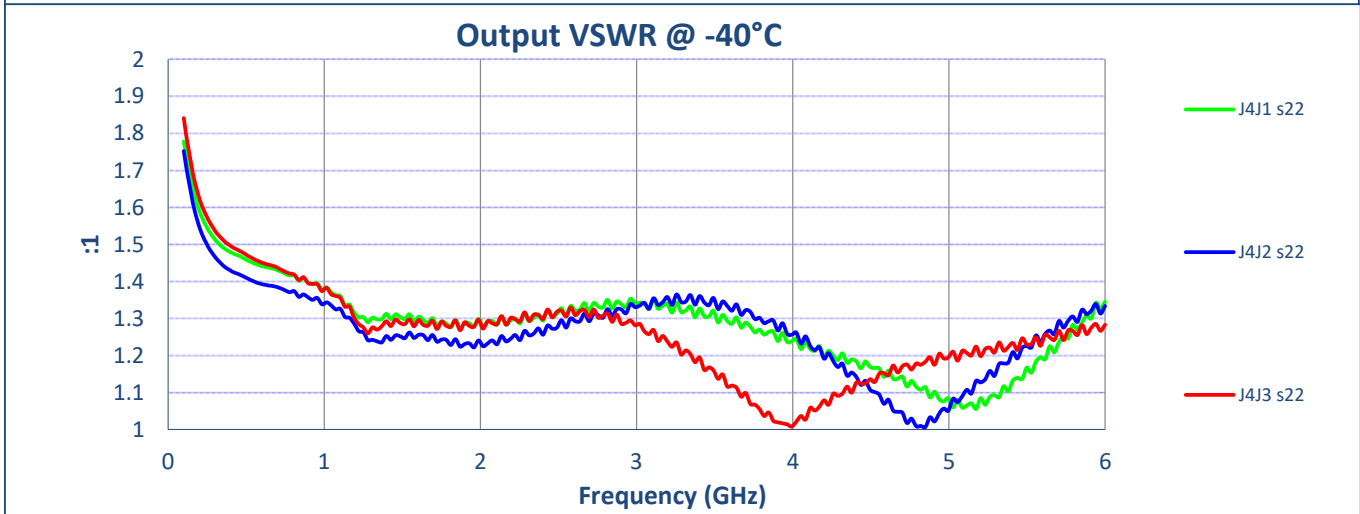
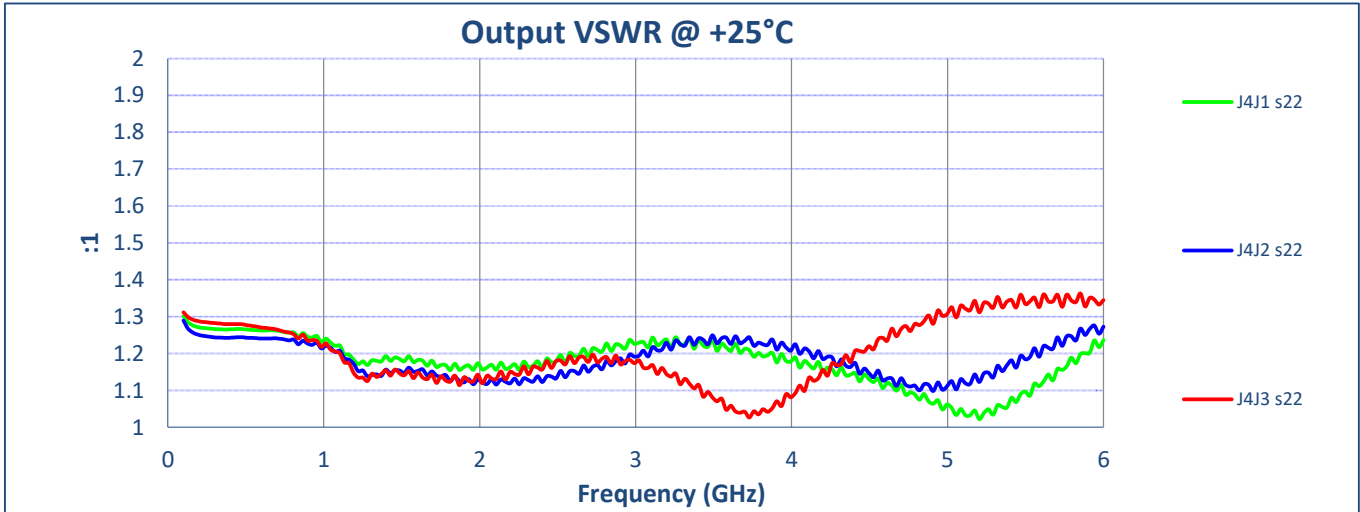
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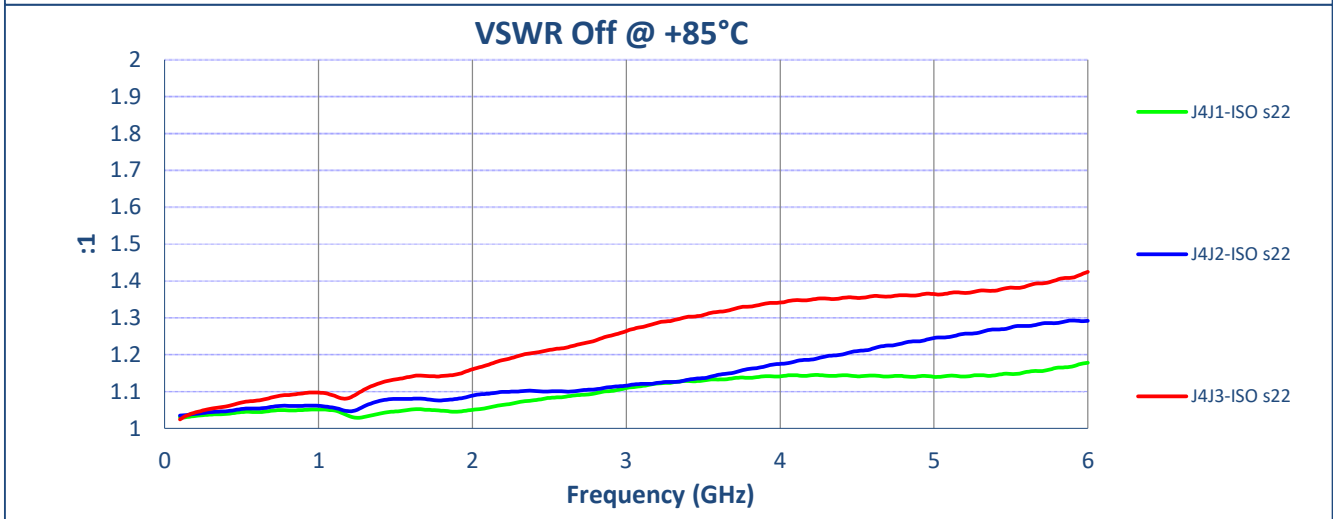
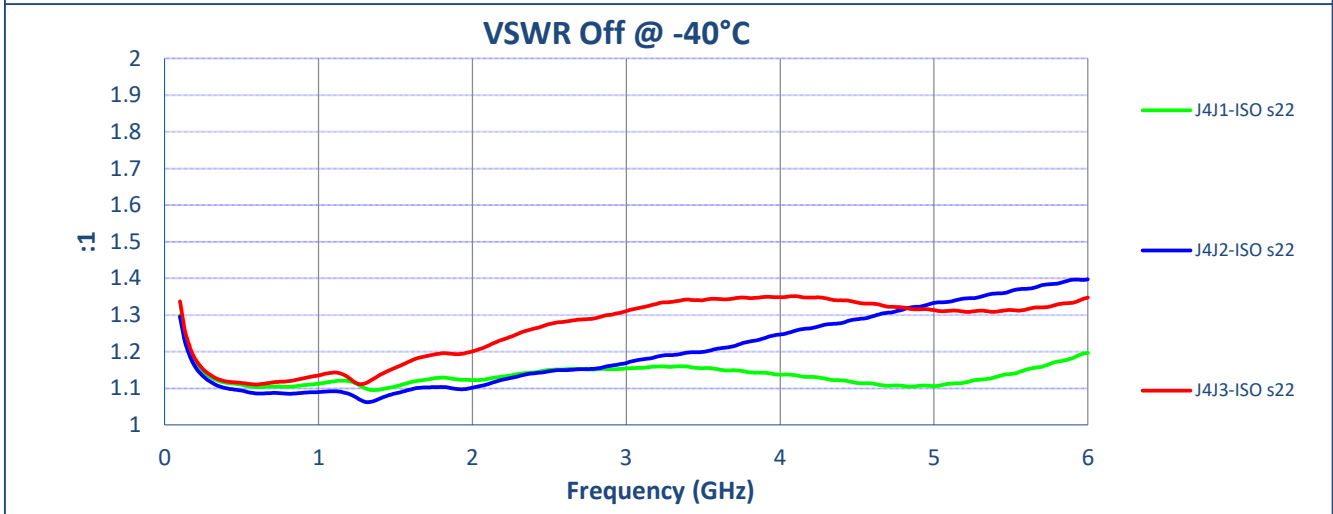
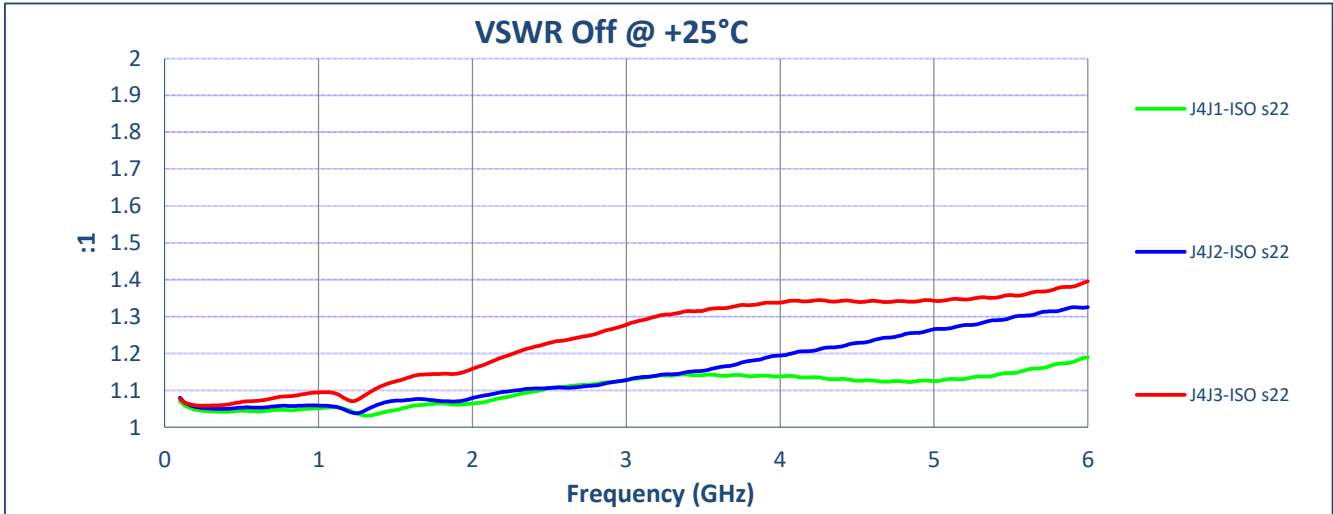
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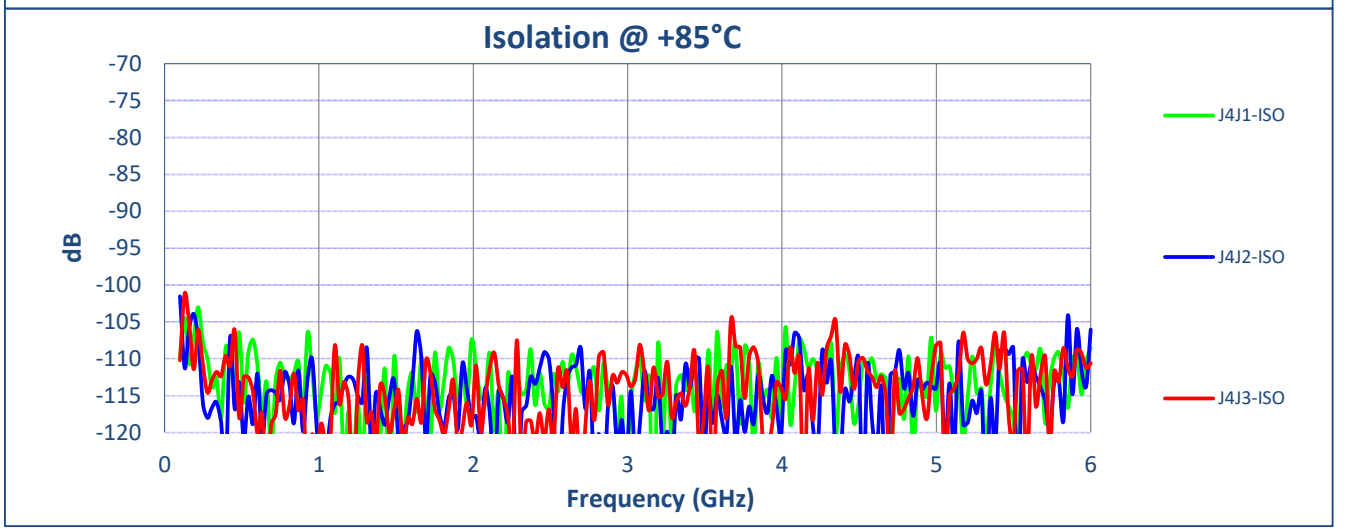
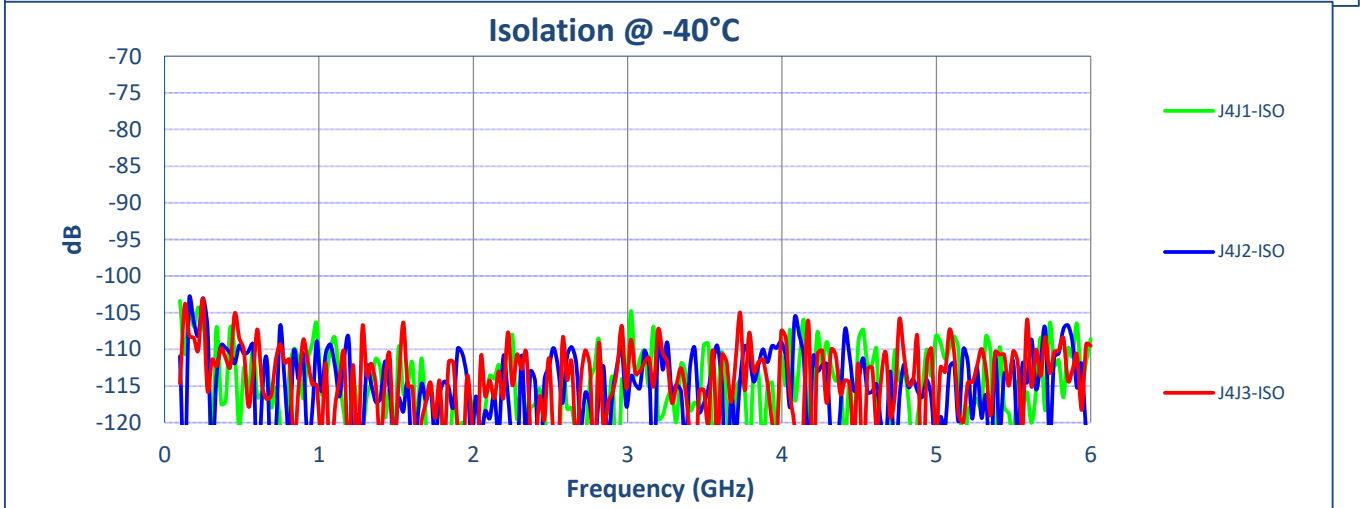
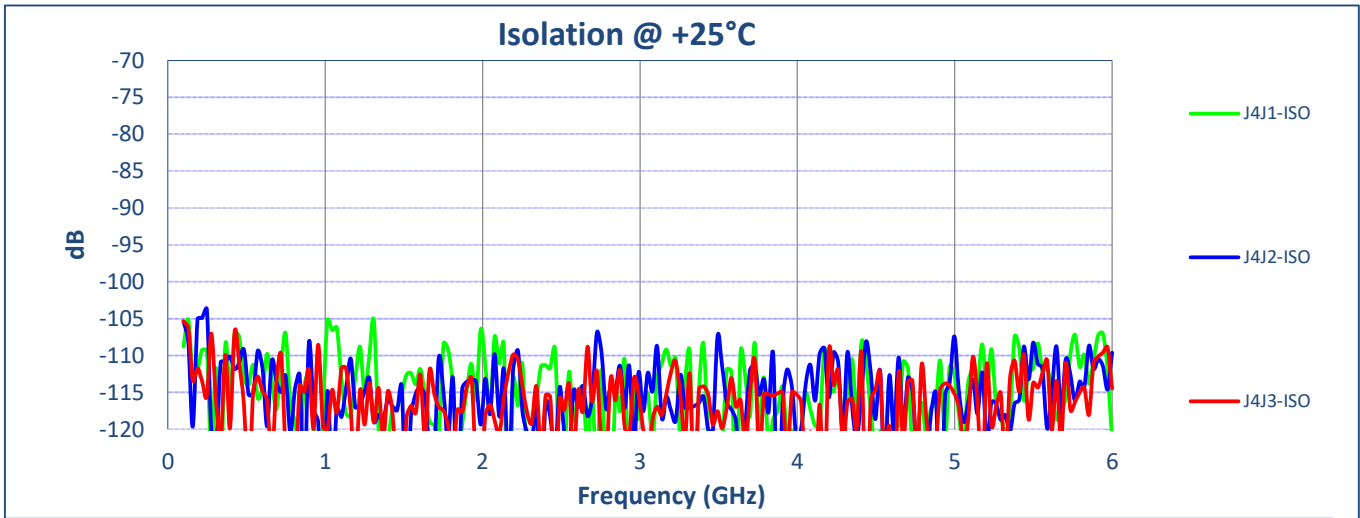
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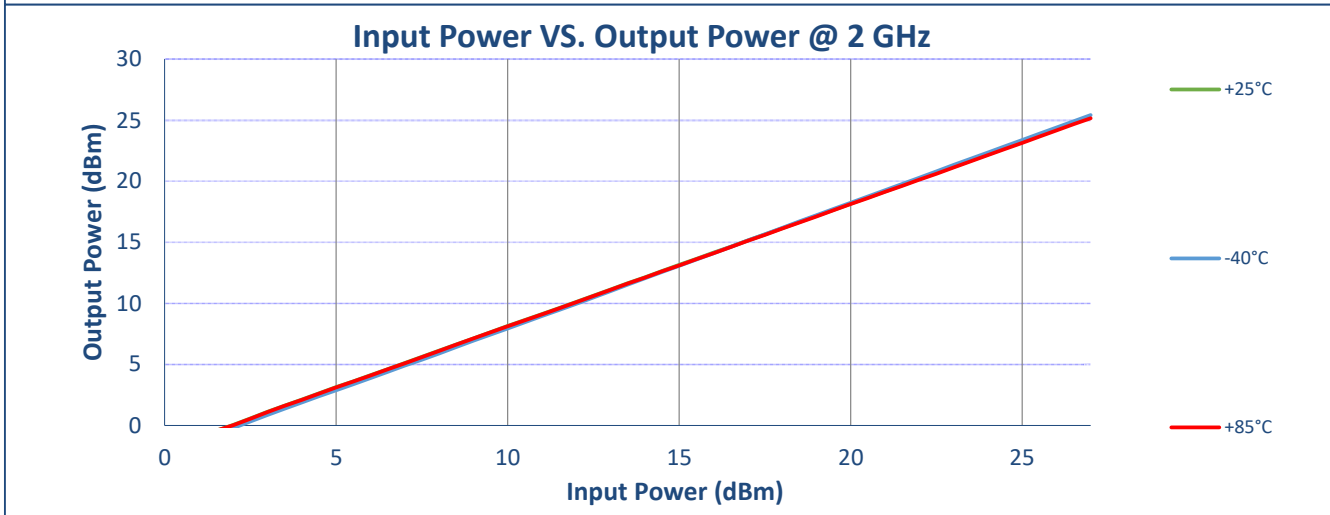
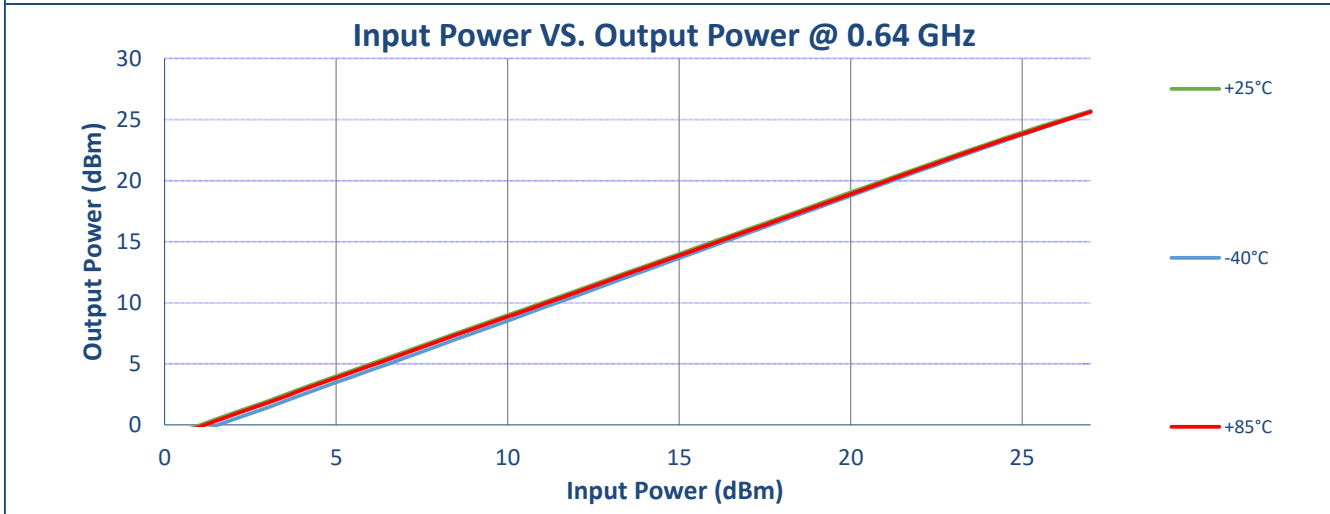
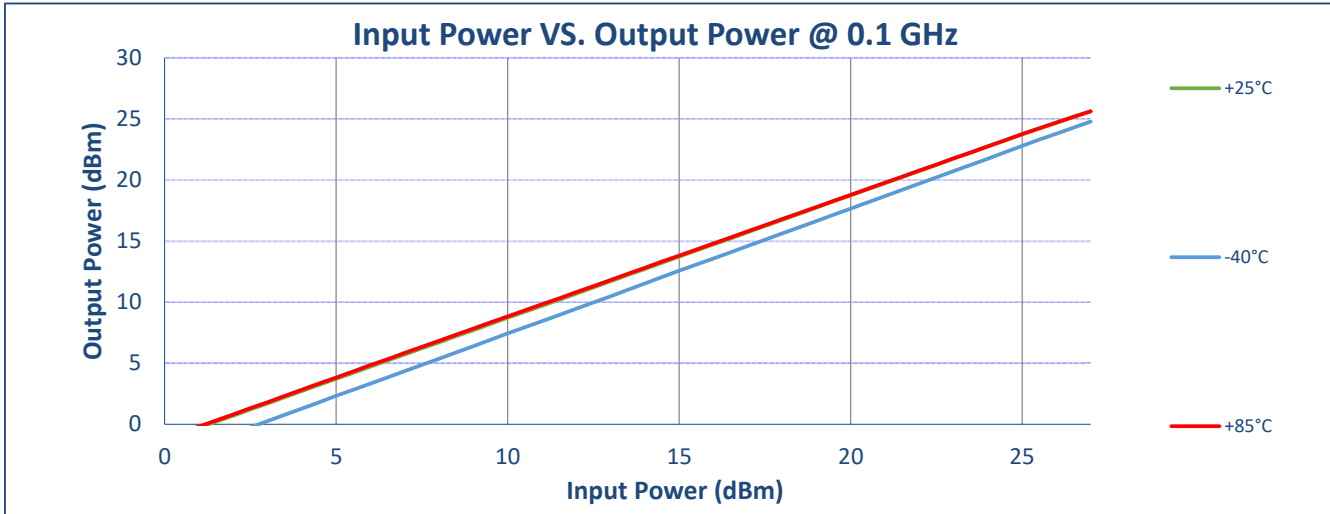
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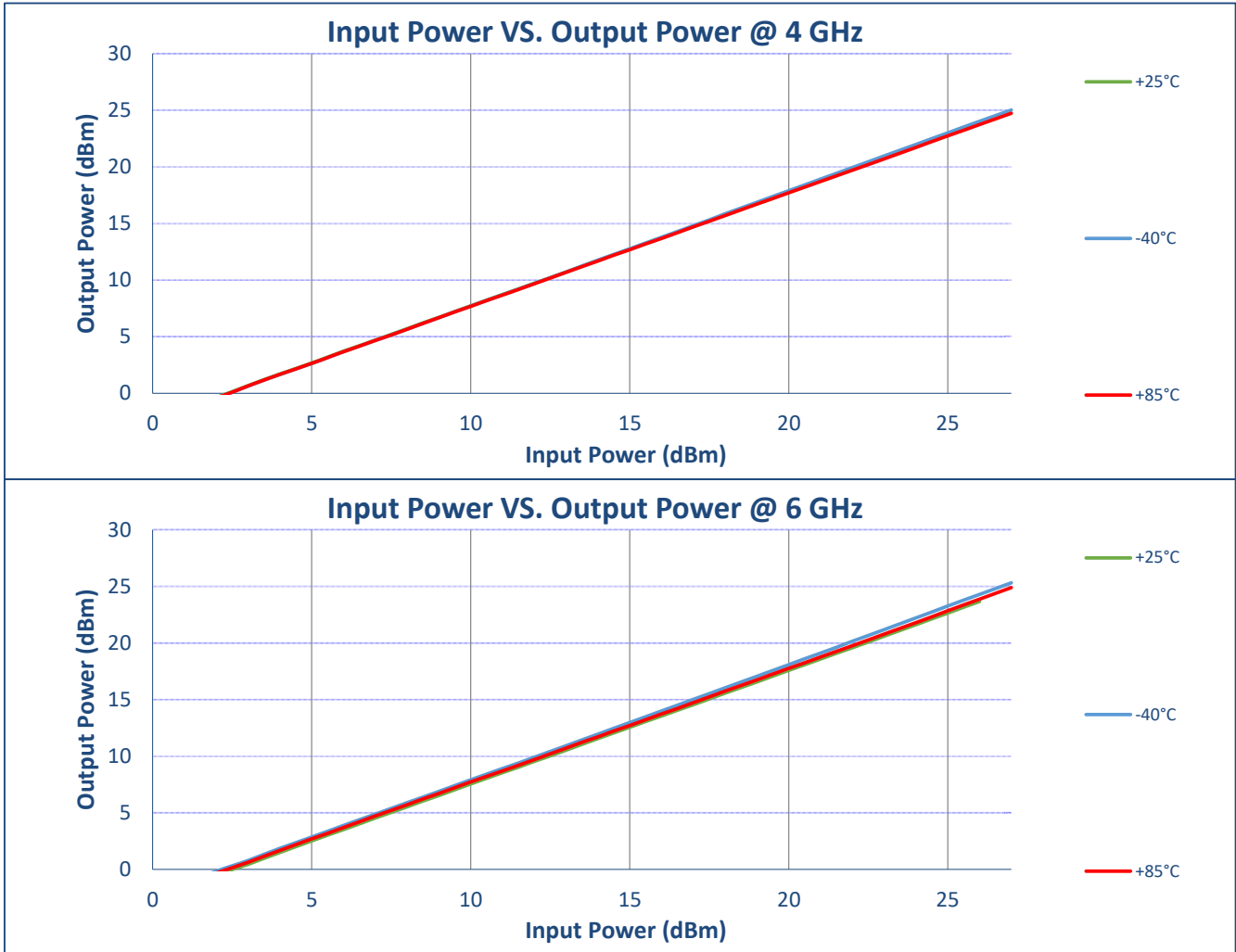
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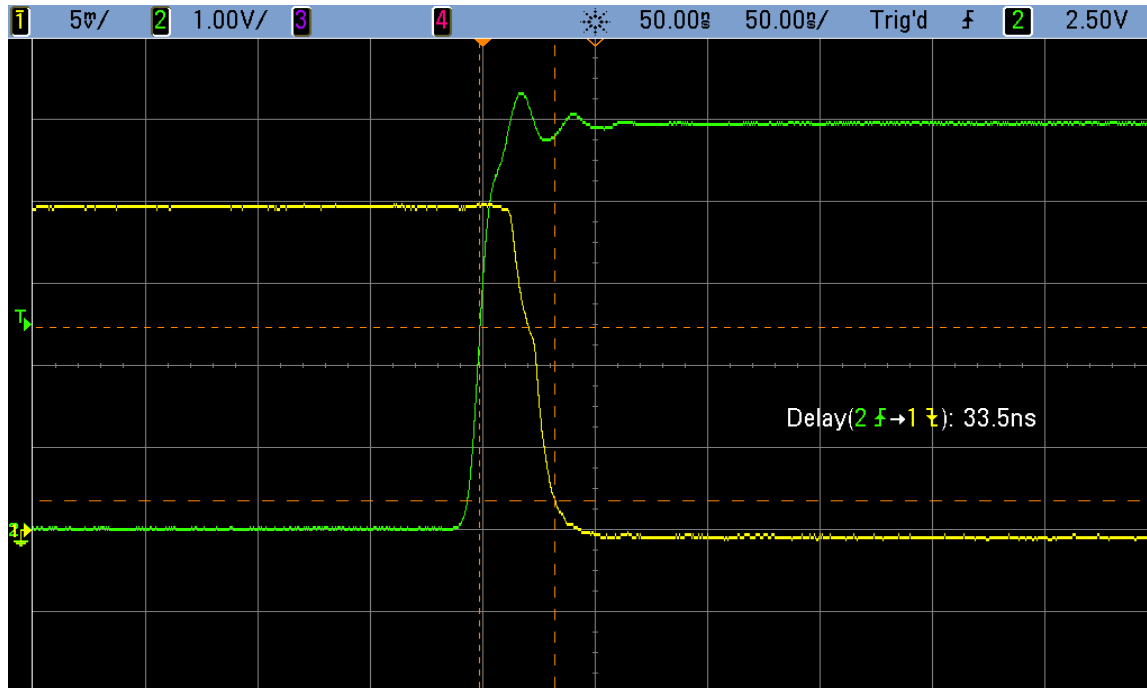
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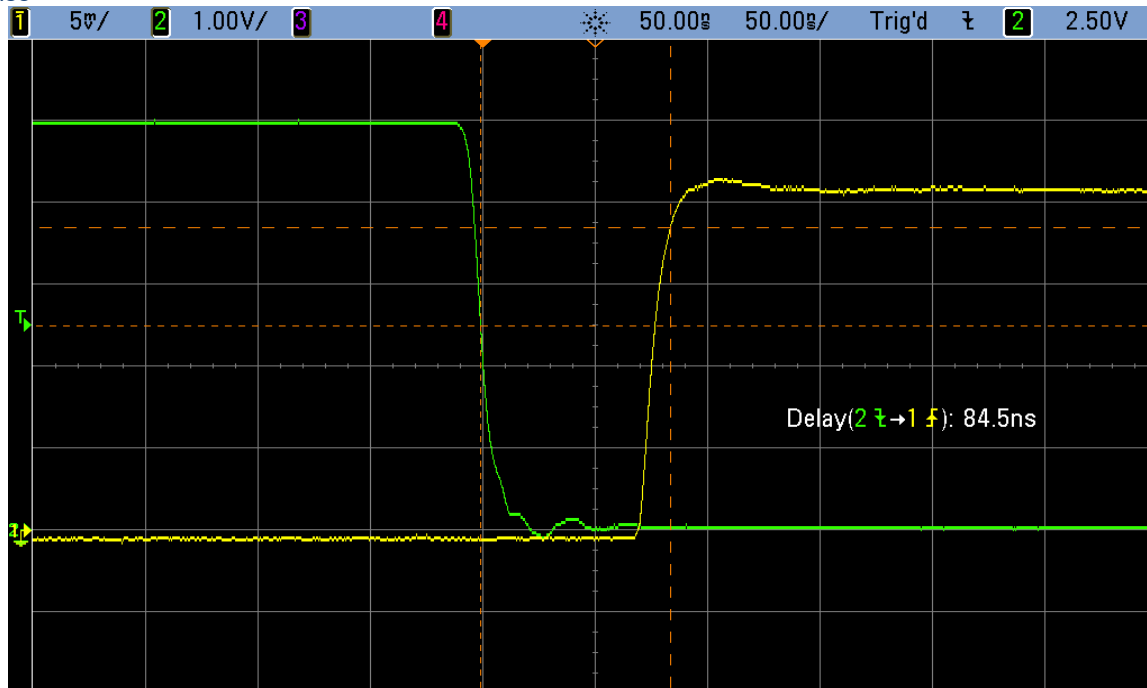
# TYPICAL CHARACTERISTICS ON PEC-100M6G-3T-SFF-ROHS

Switching Speed @ +25°C:  
Green = TTL Signal : Yellow = RF Signal

J1 Fall



J1 Rise

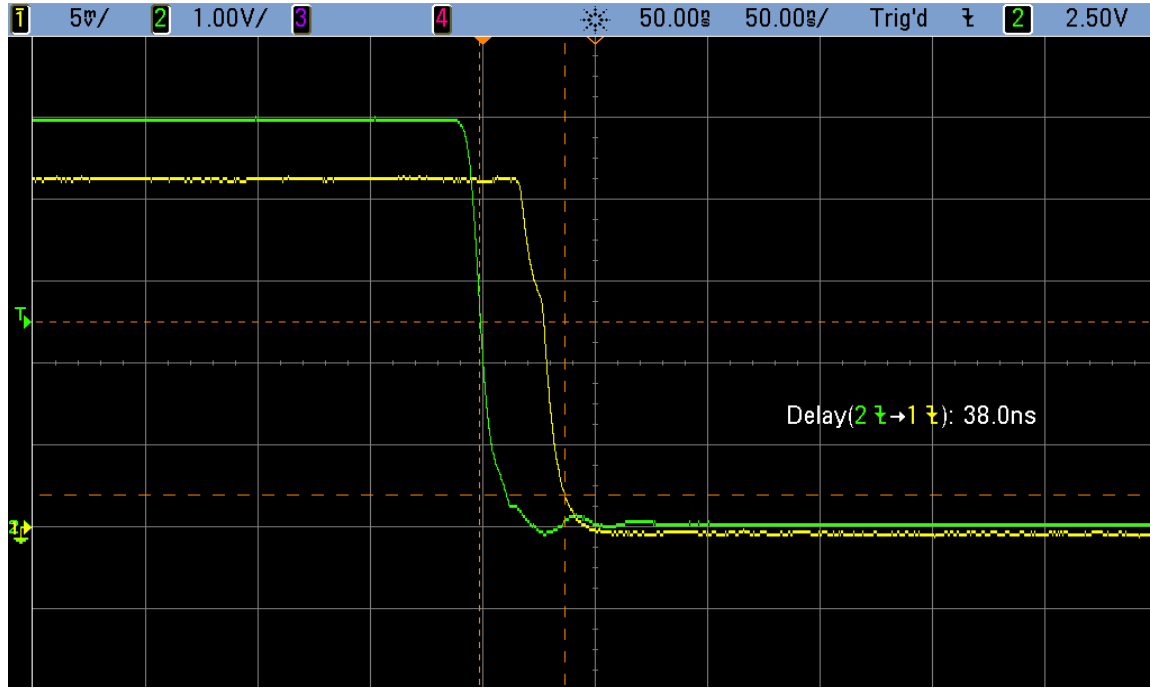


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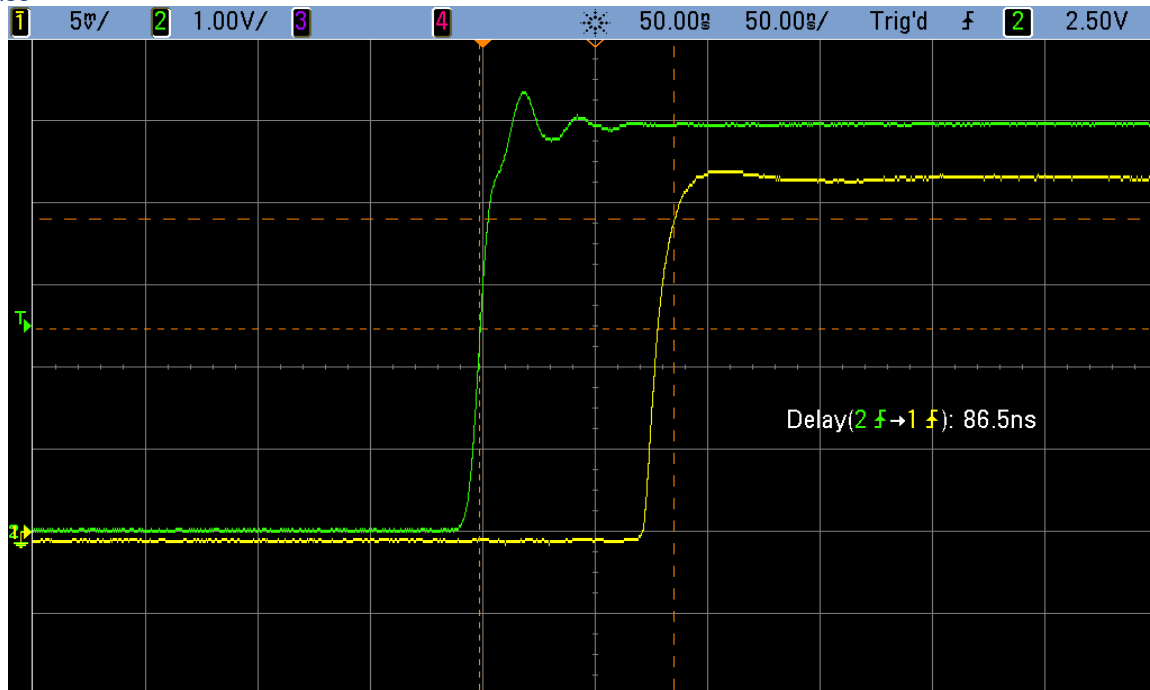


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J2 Fall



J2 Rise

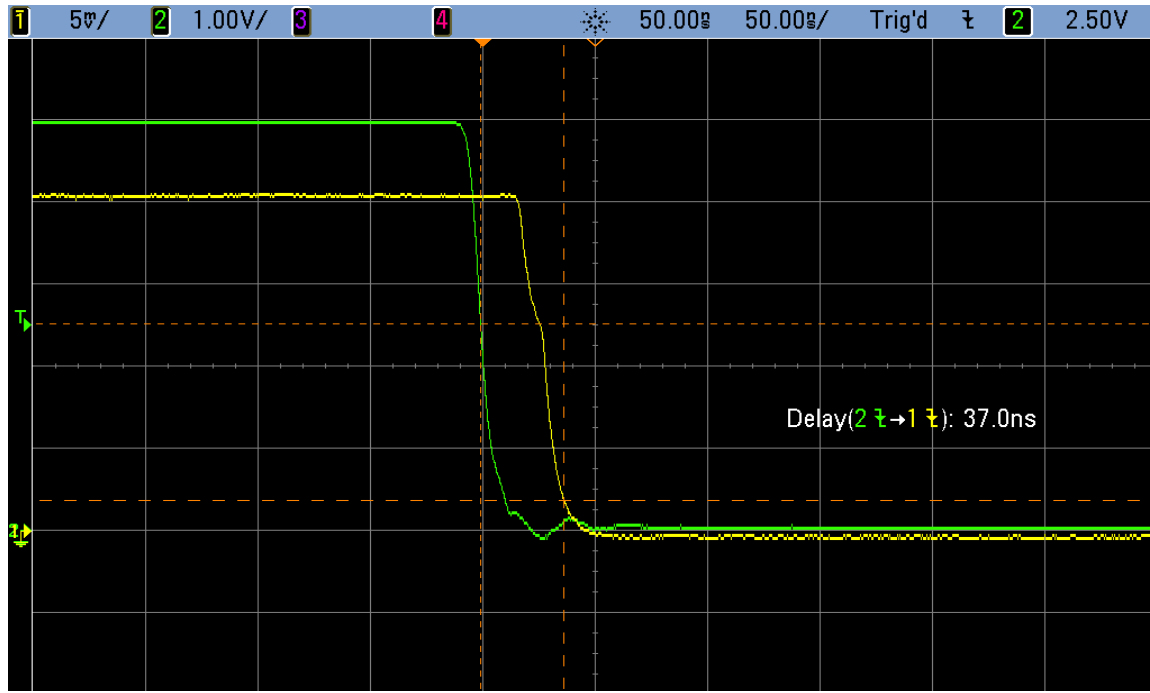


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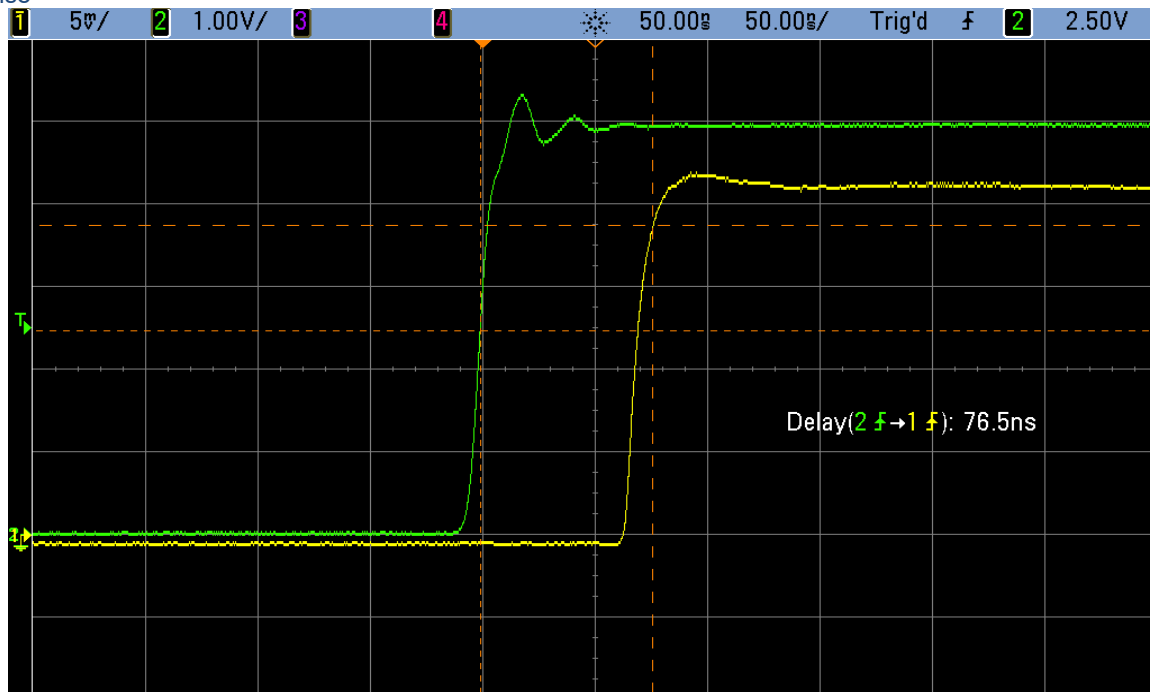


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J3 Fall



J3 Rise

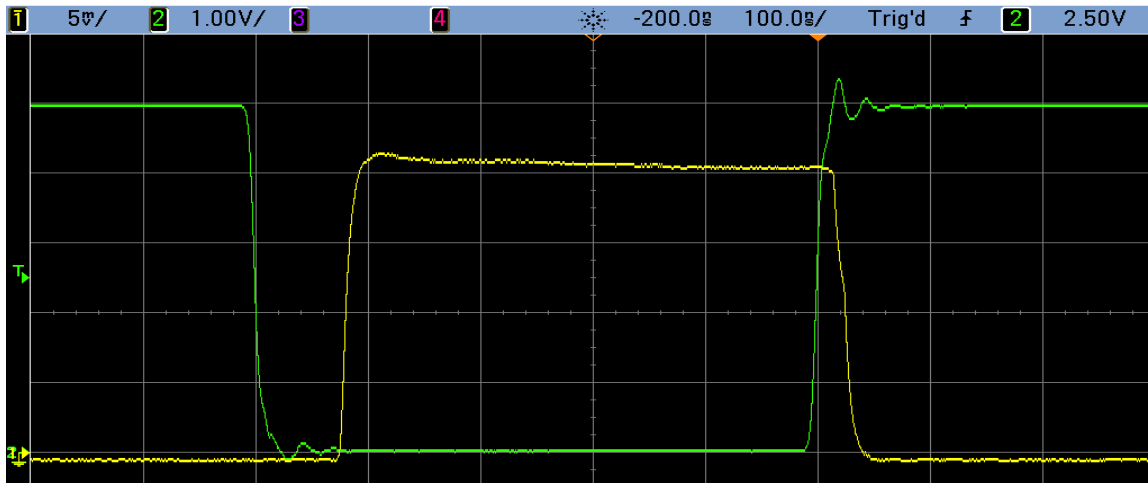


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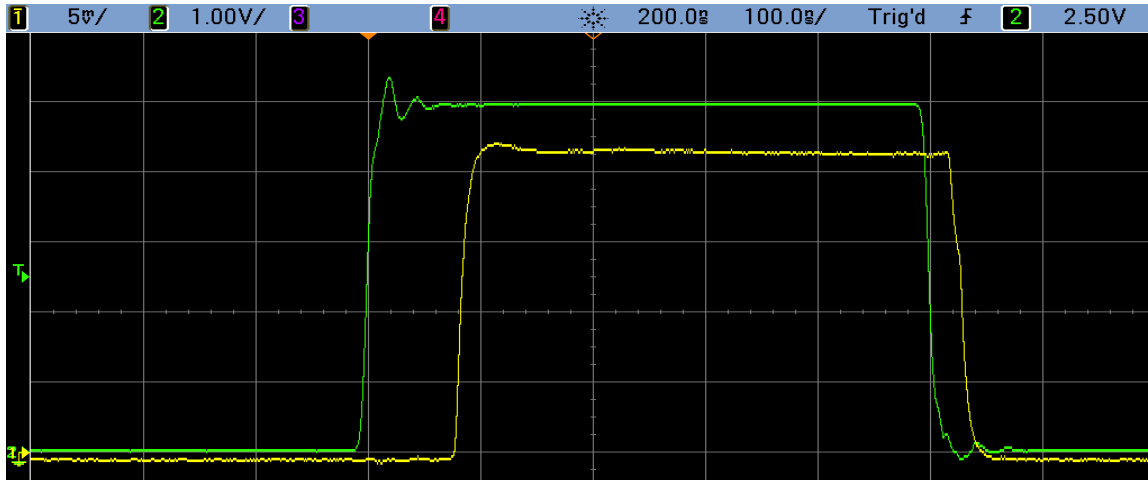


# TYPICAL CHARACTERISTICS ON PEC-100M6G-3T-SFF-ROHS

J1 Full Pulse



J2 Full Pulse



J3 Full Pulse



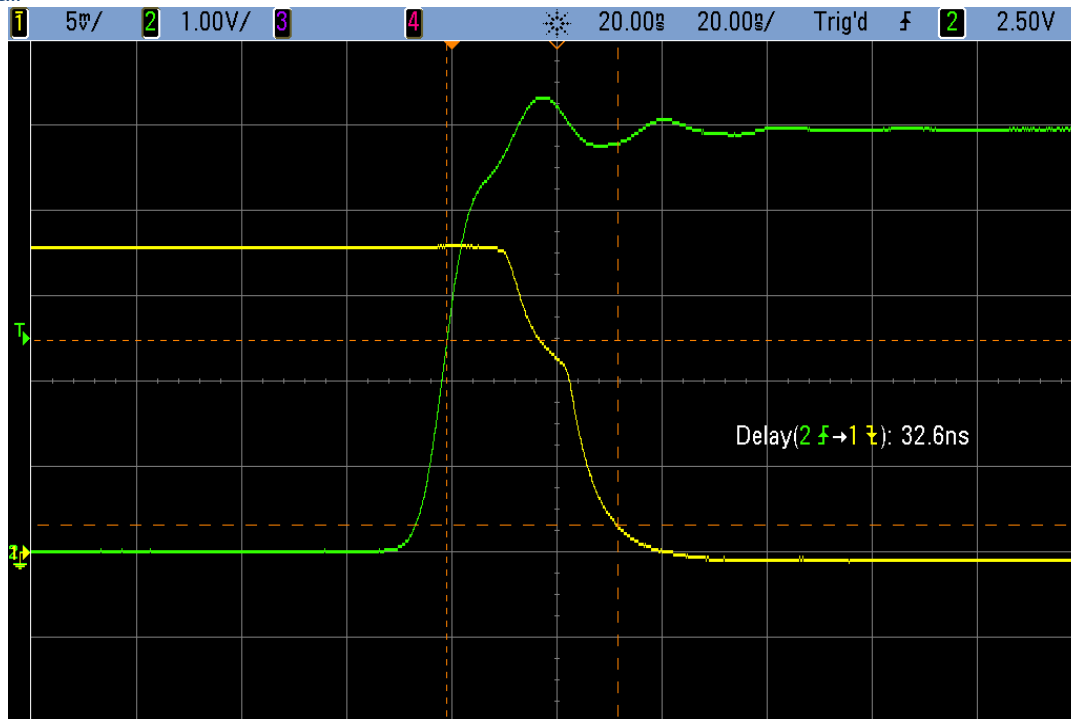
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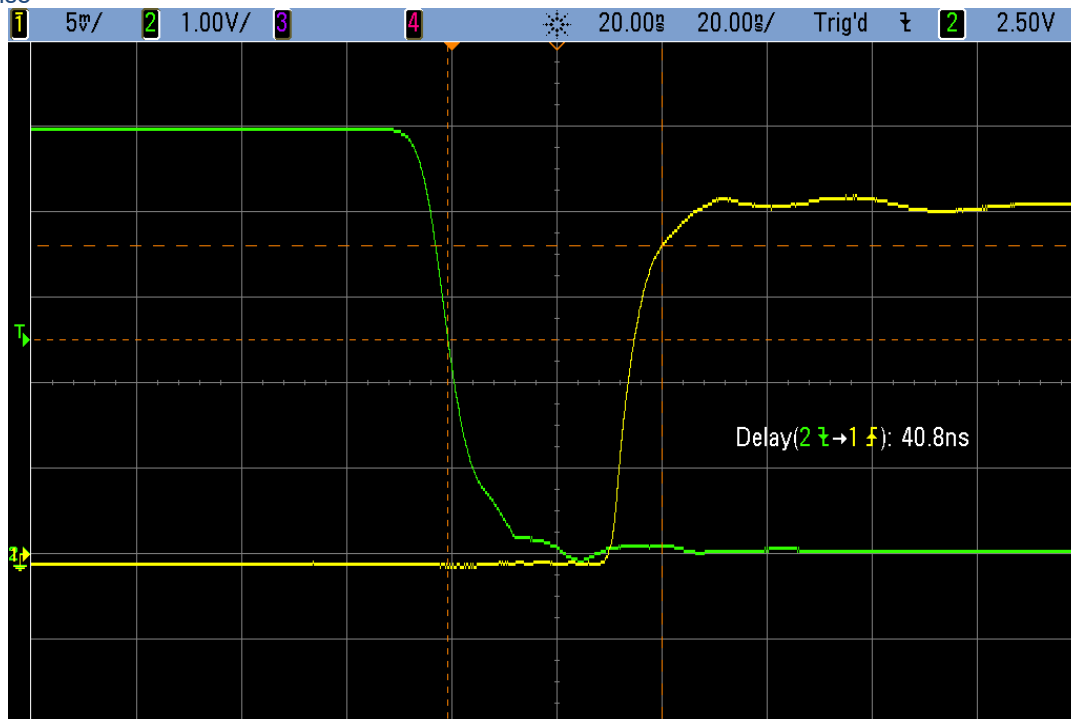
# TYPICAL CHARACTERISTICS ON PEC-100M6G-3T-SFF-ROHS

Switching Speed @ -40°C:  
Green = TTL Signal : Yellow = RF Signal

J1 Fall



J1 Rise

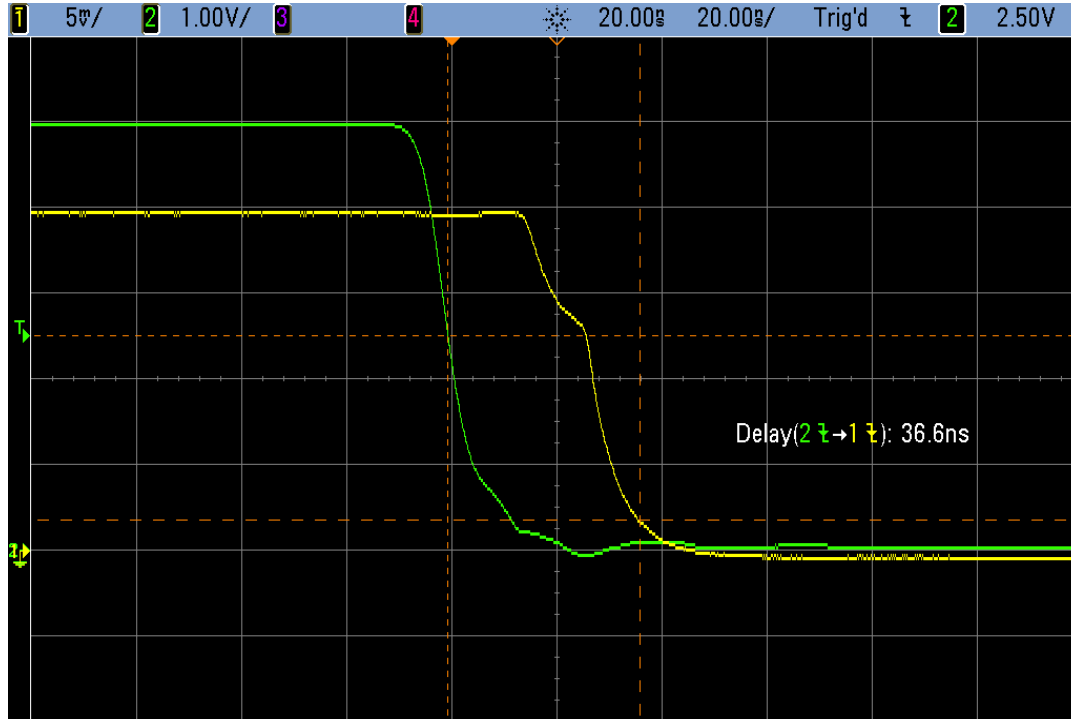


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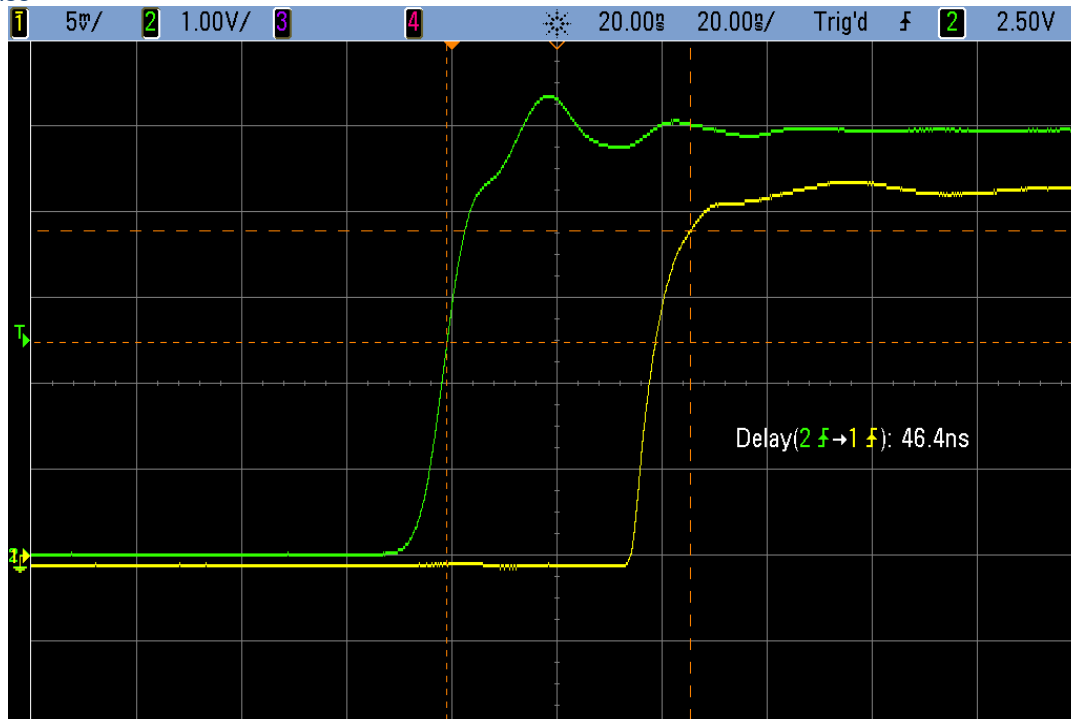


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J2 Fall



J2 Rise

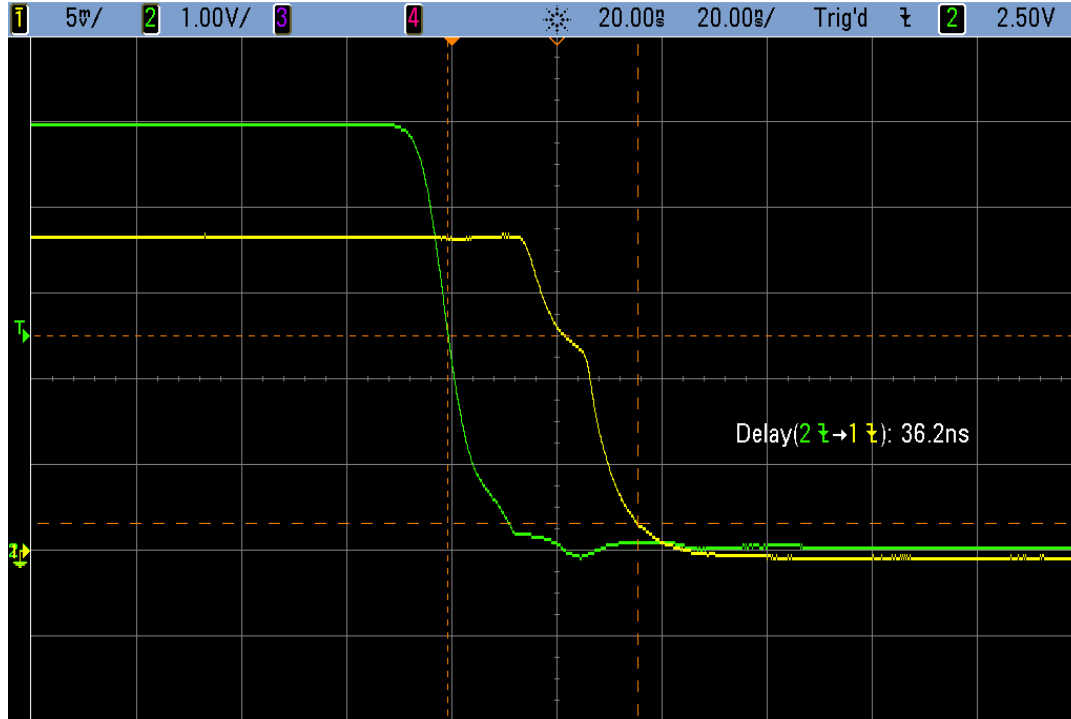


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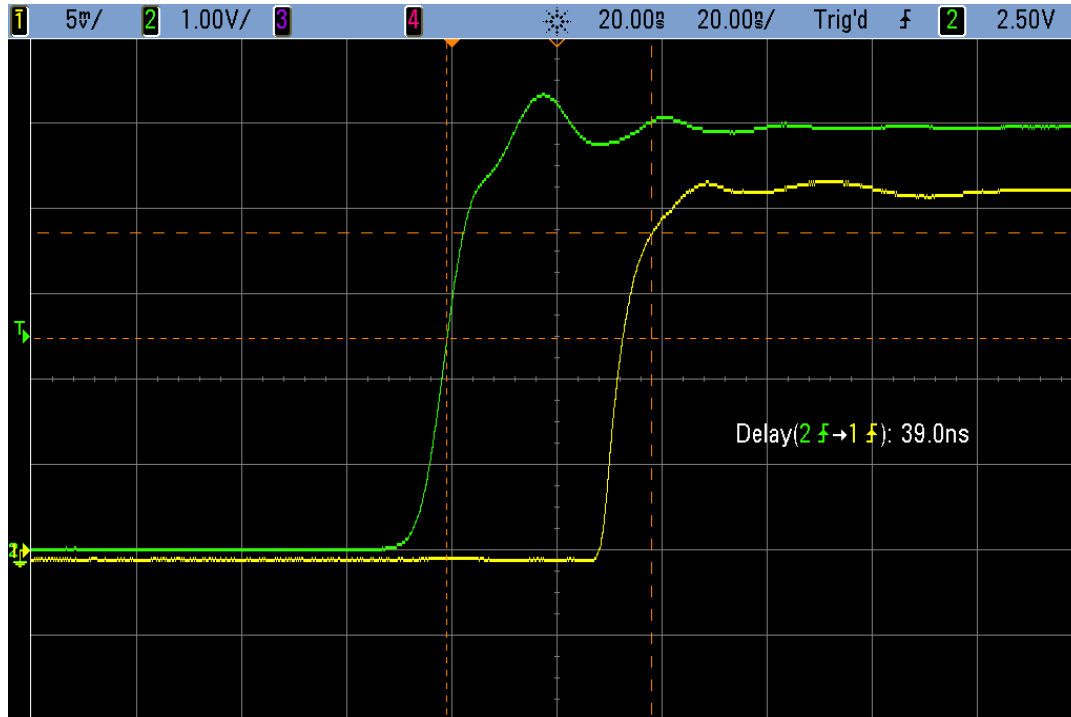


# TYPICAL CHARACTERISTICS ON PEC-100M6G-3T-SFF-ROHS

J3 Fall



J3 Rise



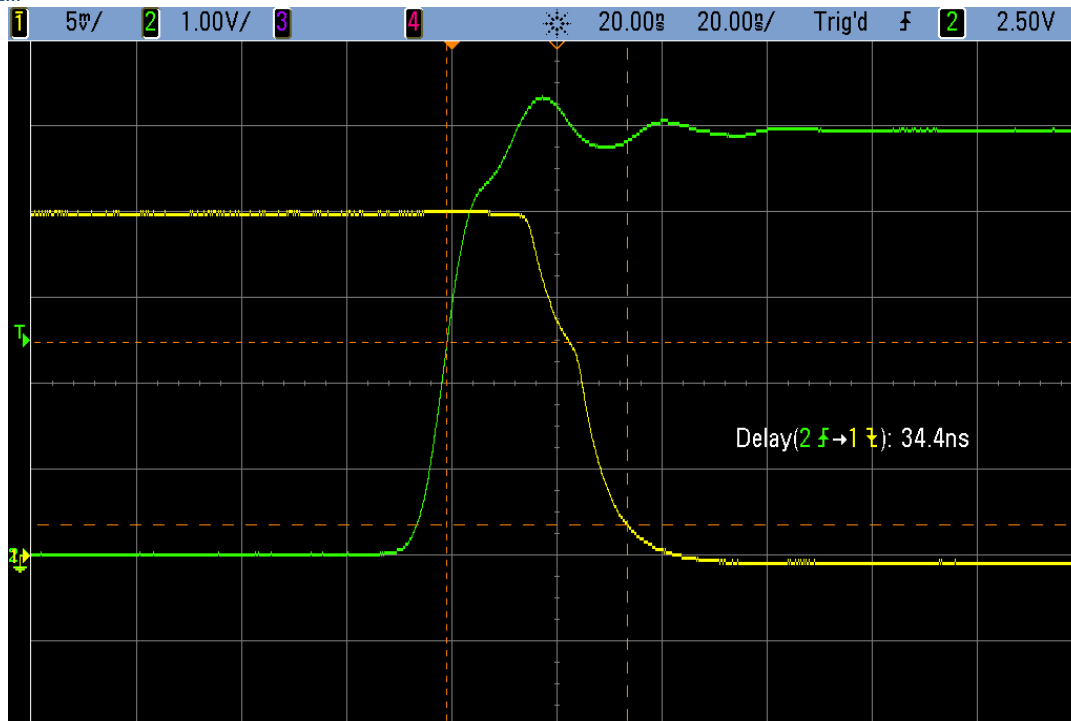
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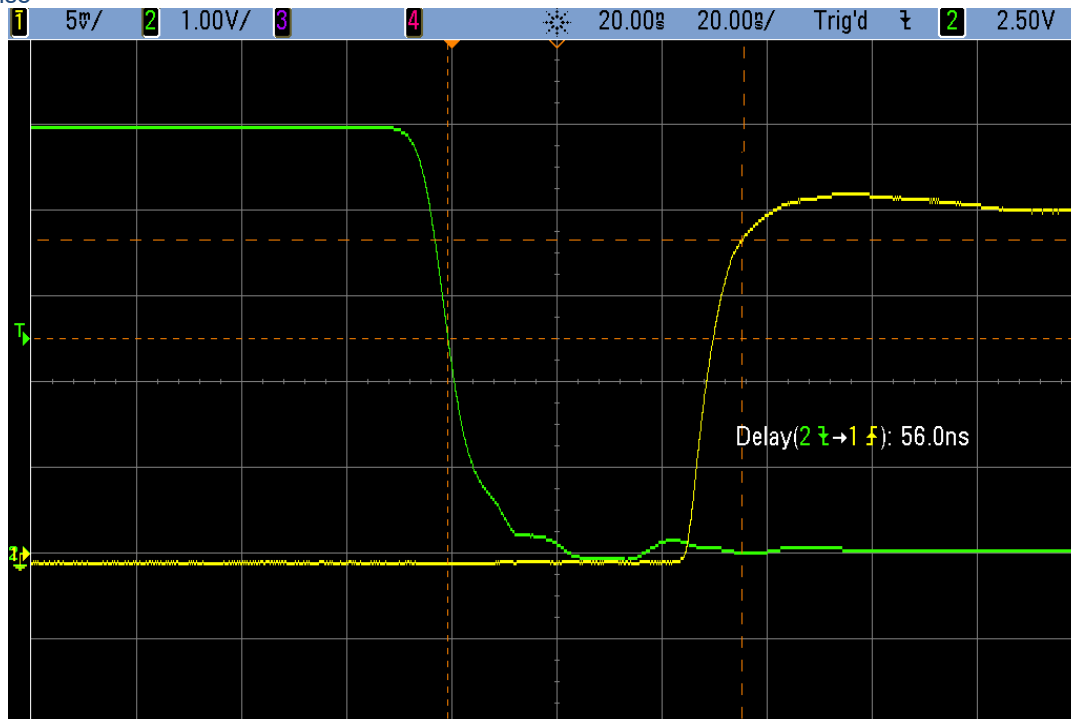
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Switching Speed @ +85°C:  
Green = TTL Signal : Yellow = RF Signal

J1 Fall



J1 Rise

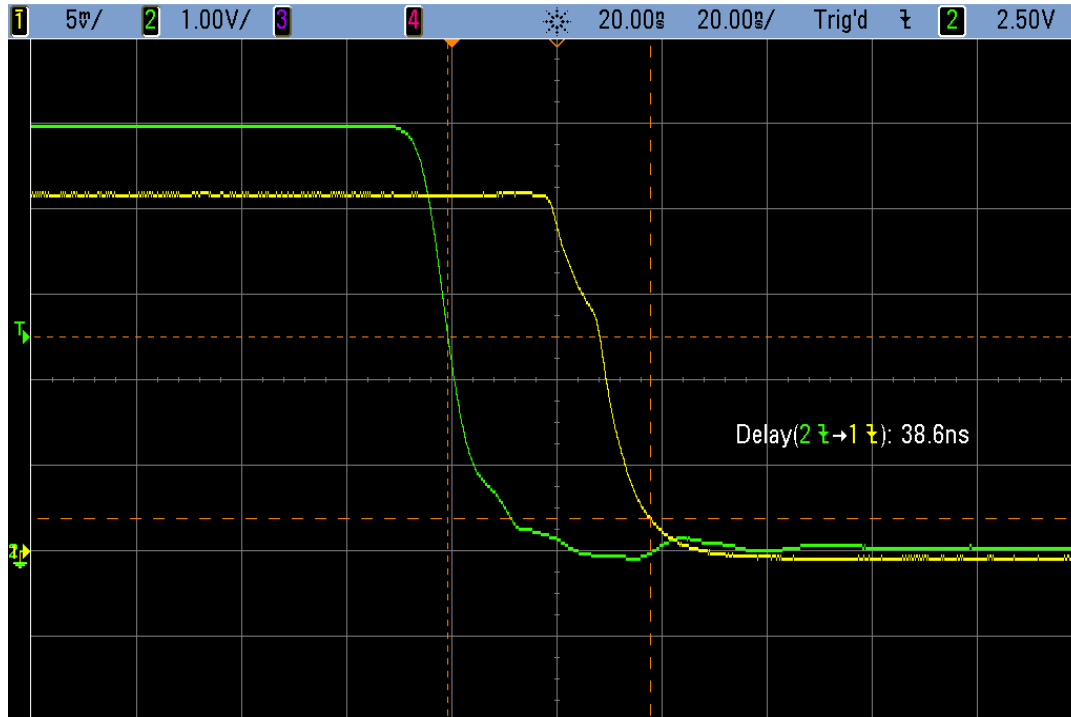


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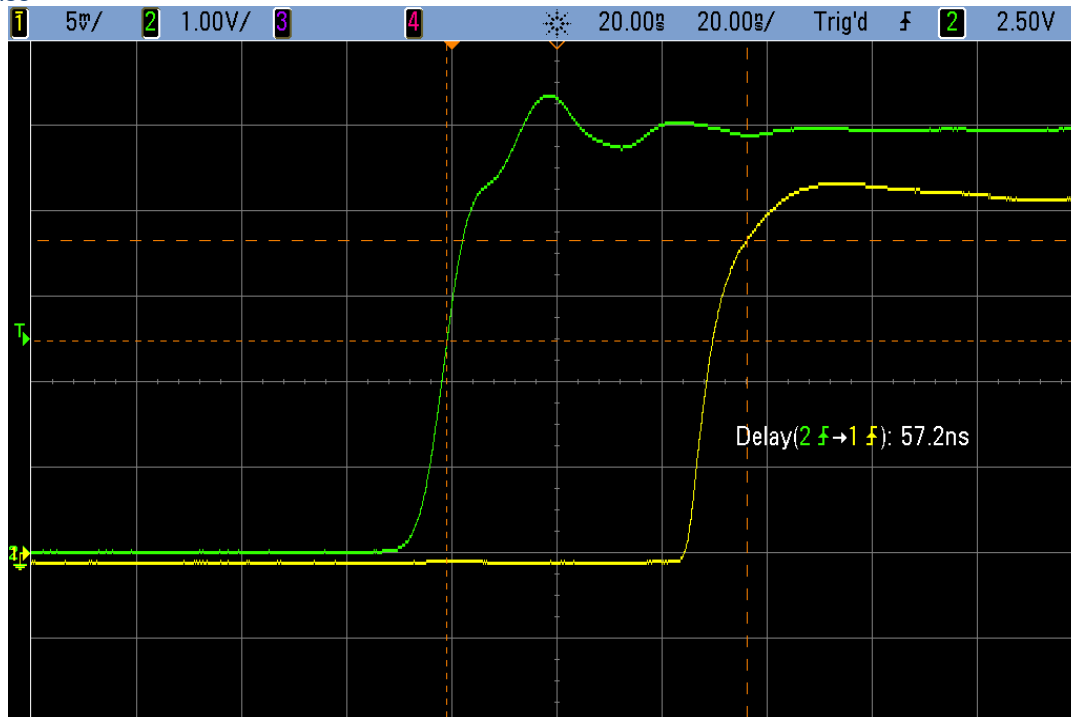


# TYPICAL CHARACTERISTICS ON PEC-100M6G-3T-SFF-ROHS

J2 Fall



J2 Rise

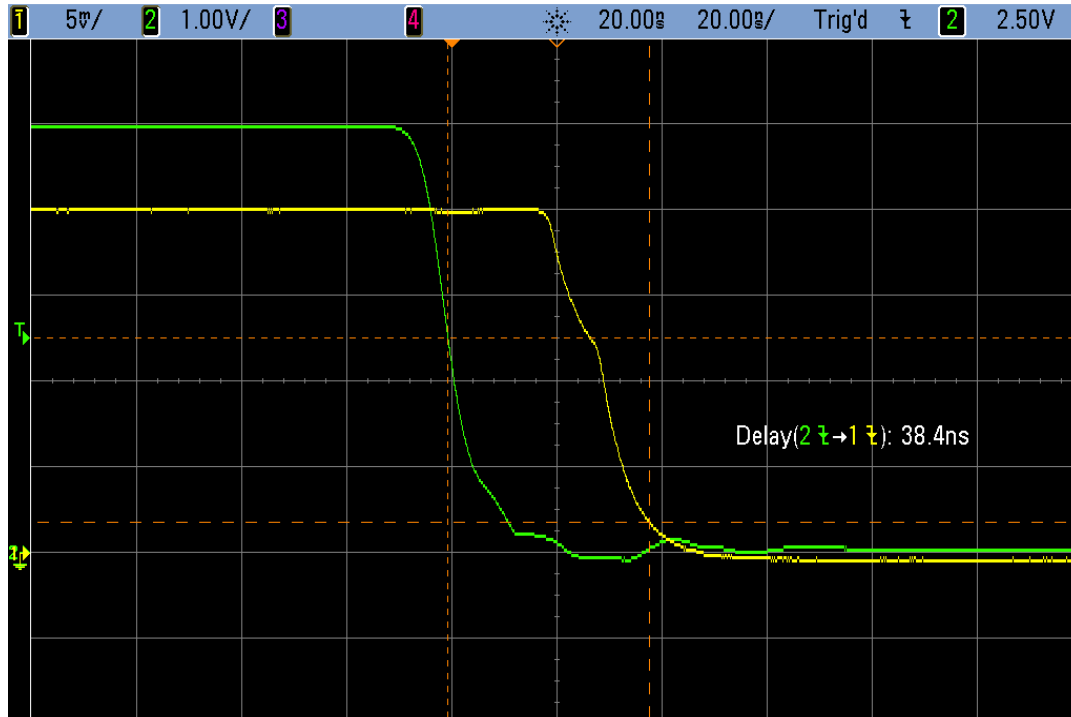


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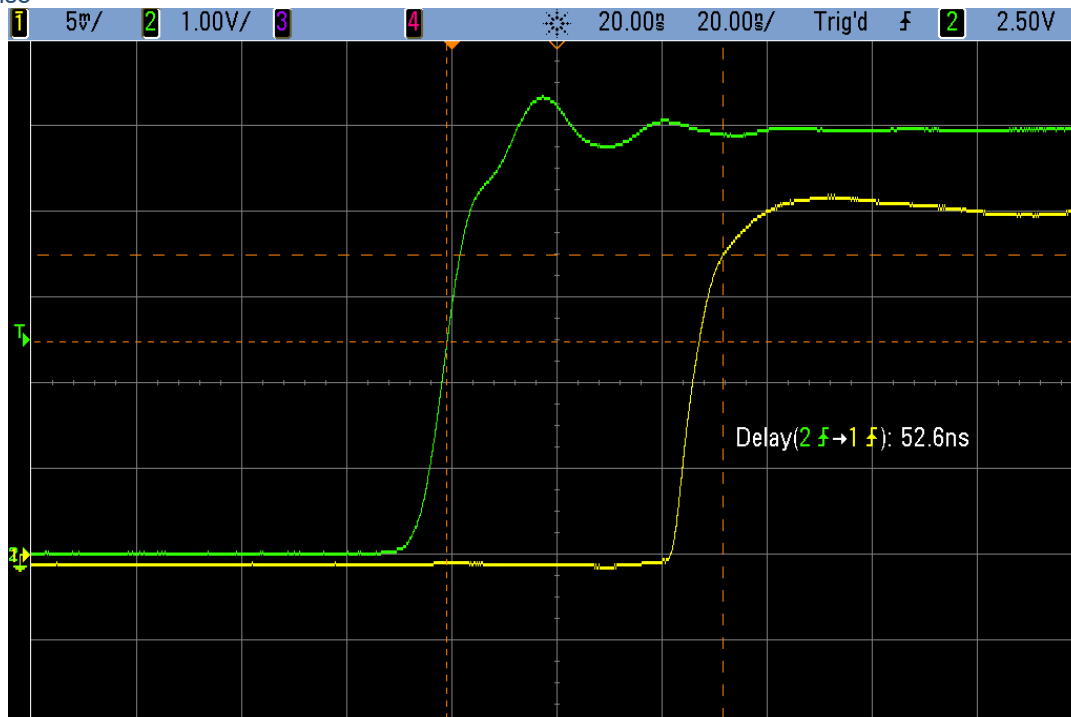


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J3 Fall



J3 Rise



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