

PMI MODEL P1T-1840-30-R-1W-292FF IS A REFLECTIVE SINGLE POLE, SINGLE THROW SWITCH THAT OPERATES FROM 18 GHz TO 40 GHz WHICH HANDLES 1 WATT CW POWER. THE PORT TO PORT ISOLATION IS 25 dB MINIMUM. THIS MODEL HAS LOW INSERTION LOSS WHILE STILL OFFERING FAST SWITCHING SPEED.



**Tested By: K Wagaman**  
**Reported By: J Escano**  
**Date: 10/20/25**

**TYPICAL CHARACTERISTICS  
ON  
P1T-1840-30-R-1W-292FF**

**PRODUCT FEATURE**

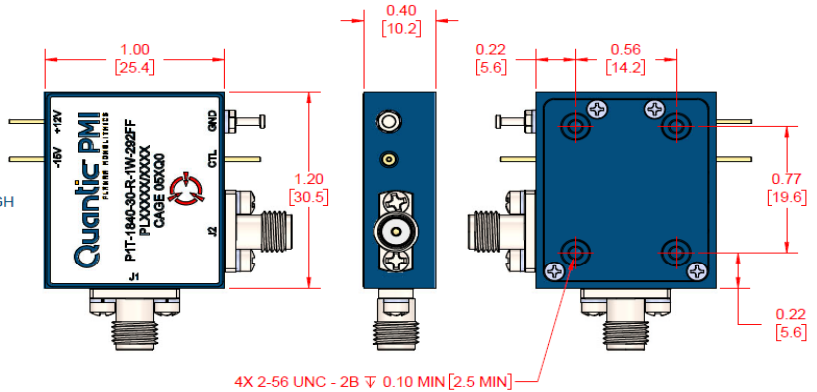
**DESCRIPTION:**

PMI MODEL P1T-1840-30-R-1W-292FF IS A REFLECTIVE SINGLE POLE, SINGLE THROW SWITCH THAT OPERATES FROM 18 GHz TO 40 GHz WHICH HANDLES 1 WATT CW POWER. THE PORT TO PORT ISOLATION IS 25 dB MINIMUM. THIS MODEL HAS LOW INSERTION LOSS WHILE STILL OFFERING FAST SWITCHING SPEED.

CON	REV	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	6/19/2024	

**SPECIFICATIONS:**

- FREQUENCY:..... 18 TO 40 GHz
- ISOLATION:..... 25 dB MIN
- INSERTION LOSS @ 25°C:..... 3.0 dB MAX
- VSWR:..... 2.5:1 MAX
- RF SURVIVAL POWER:..... 30 dBm CW MIN  
1 us PULSE WIDTH, 1% DUTY CYCLE  
37 dBm PEAK MIN
- SWITCHING SPEED:..... 500 ns MAX
- POWER SUPPLY :..... +12 V @ 50 mA MAX  
-15 V @ 50 mA MAX
- CONTROL:..... TTL/CMOS COMPATIBLE, LOGIC 1 IS HIGH
- CONNECTORS:..... 2.92 mm FEMALE
- CONTROL CONNECTORS:..... SOLDER POST
- FINISH:..... PAINTED BLUE
- WEIGHT:..... 3.0 oz MAX



CTL	SWITCH STATE
TTL 1	INSERTION LOSS
TTL 0	ISOLATION

**ENVIRONMENTAL RATINGS:**

- TEMPERATURE:..... -34°C TO +85°C (OPERATING)  
-62°C TO +71°C (STORAGE)
- VIBRATION:..... MIL-STD-167-1
- TRANSPORTATION:..... SHALL WITHSTAND TRANSIT IN AN UNPRESSURIZED AIRCRAFT TO 15000 FT ABOVE SEA LEVEL
- FUNGUS:..... SHALL BE FUNGUS INERT AND SHALL NOT SUPPORT FUNGAL GROWTH
- SHOCK:..... 125 G

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

PMI CONFIDENTIAL AND PROPRIETARY

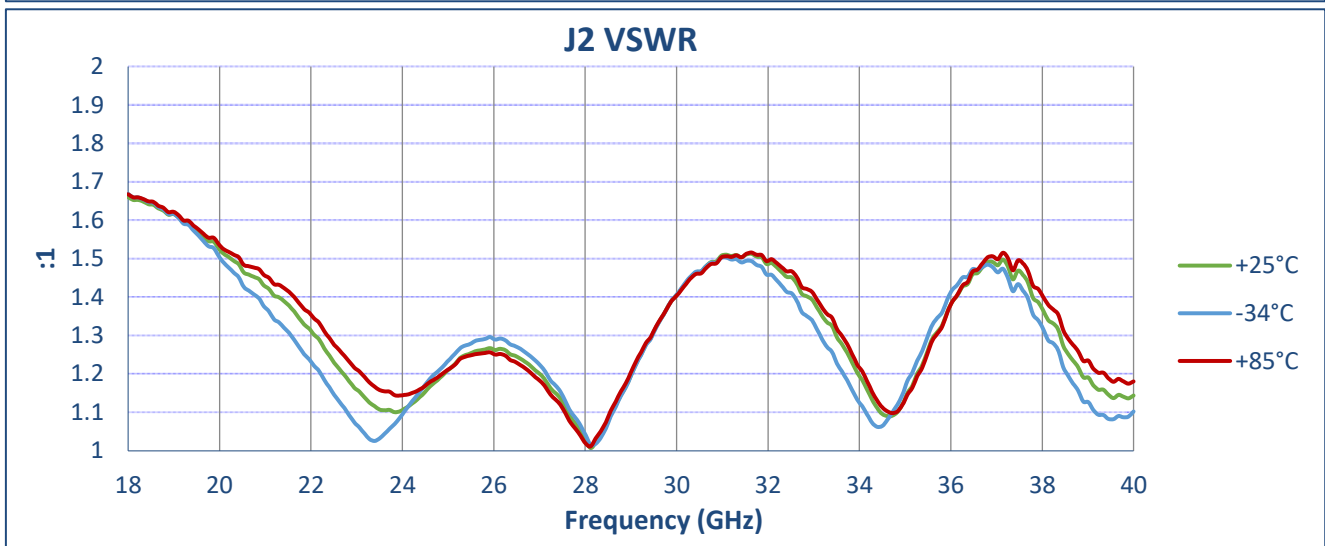
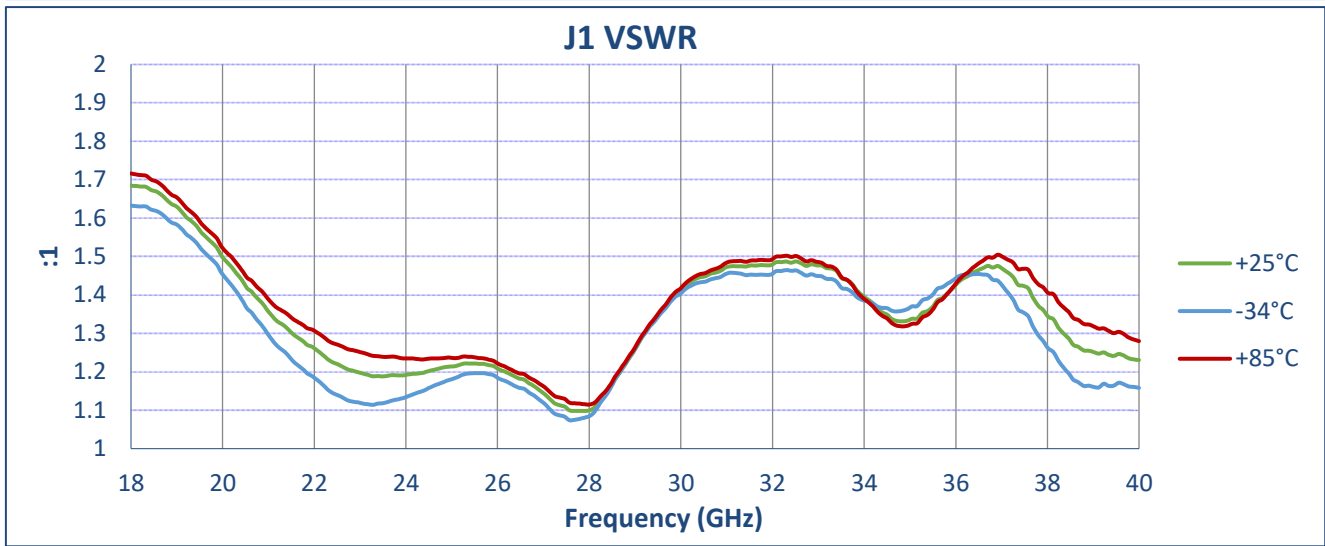
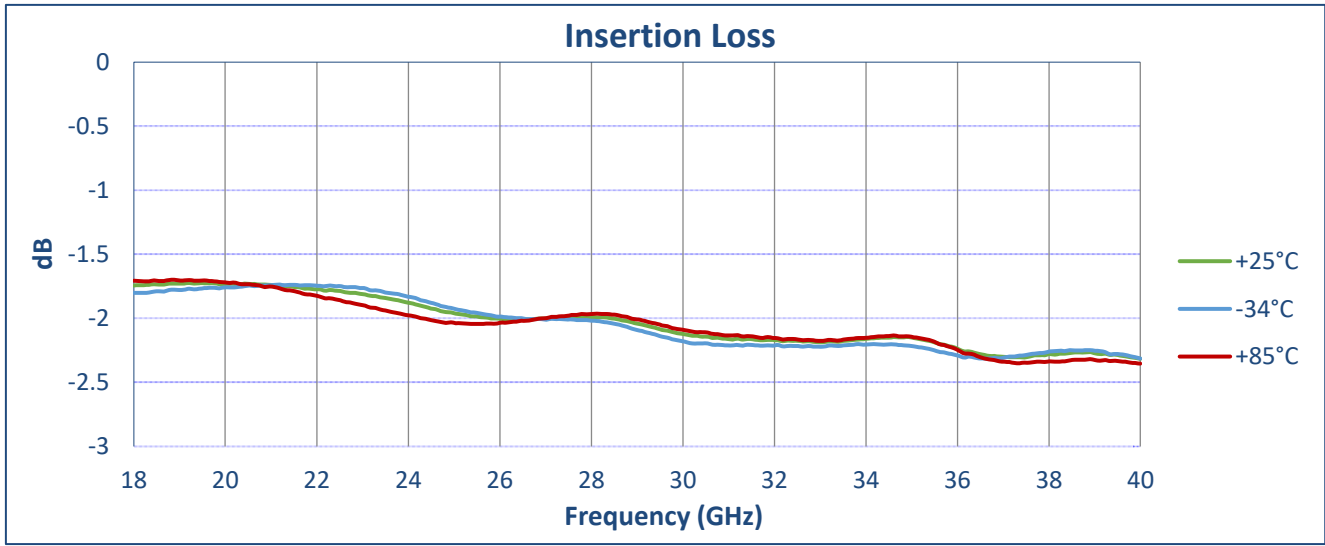
APPROVALS		DATE	TITLE	
DESIGN	J ESCANO	6/19/2024	OUTLINE	
TESTED			P1T-1840-30-R-1W-292FF	
REV	B	05X00	DWG NO.	27050920
SCALE: 2:1			REV: A1	

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**TEST DATA**

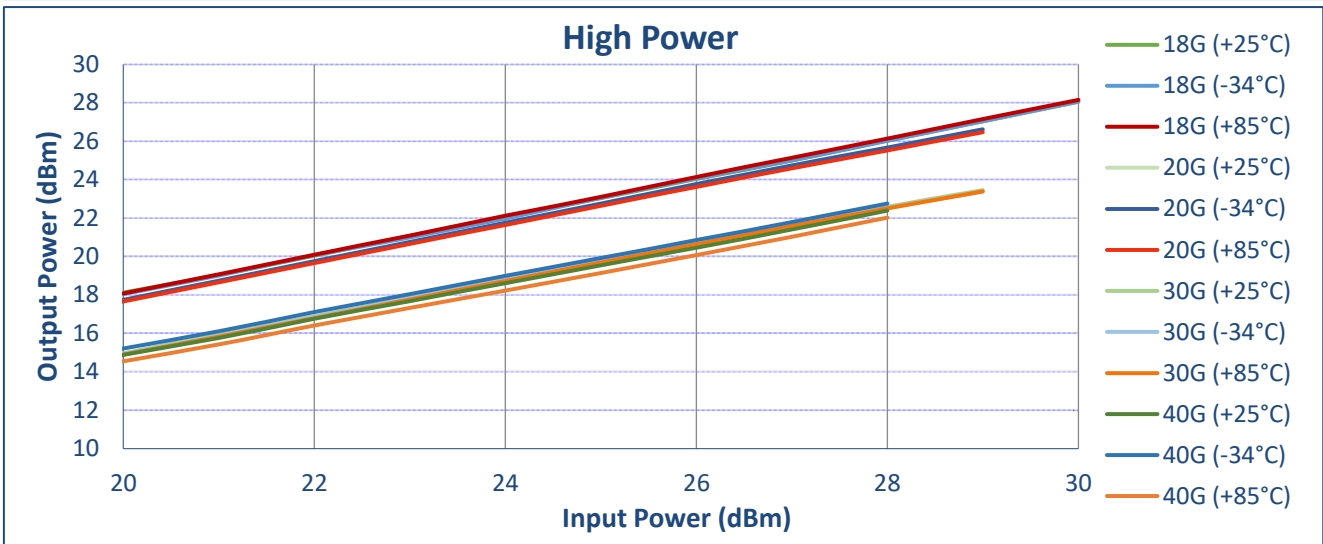
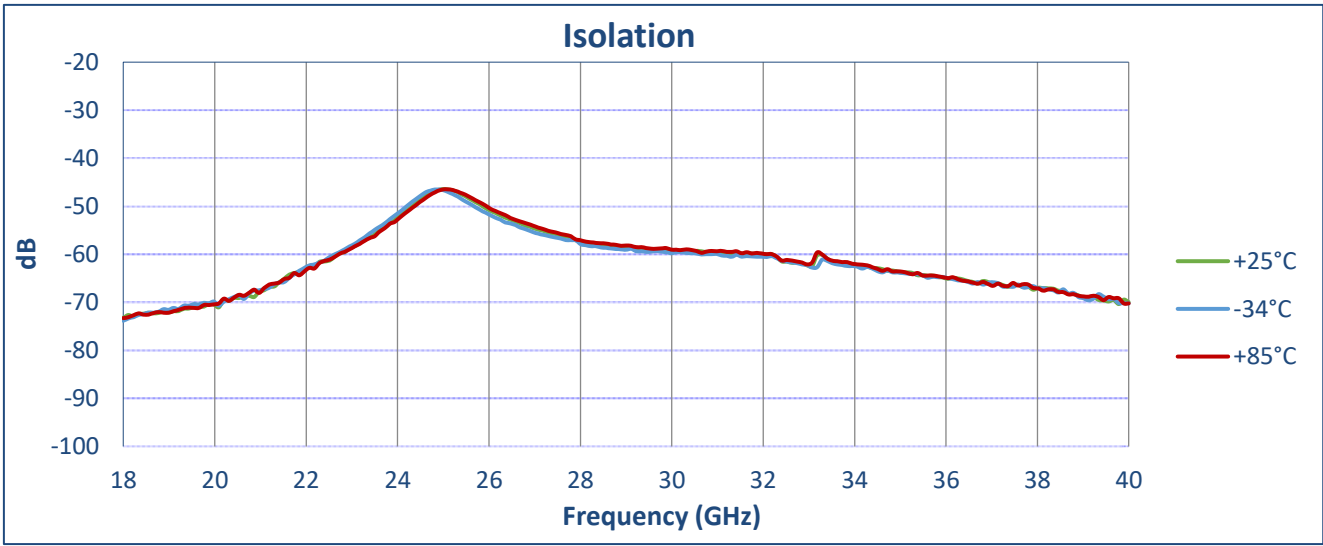
TEST ITEM	PARAMETERS	SPECIFIED VALUE	TEST RESULTS		
			-34°C	+25°C	+85°C
1	Frequency Range	18 to 40 GHz	18 to 40 GHz		
2	Isolation	25 dB Min	46.5 dB	46.4 dB	46.5 dB
3	Insertion Loss	3.0 dB Max @ +25°C	2.3 dB	2.3 dB	2.4 dB
4	VSWR	2.5:1 Max	1.7:1	1.7:1	1.7:1
5	RF Survival Power	30 dBm Min 37 dBm Peak Min 1 μs PW, 1% DC	30 dBm @ 18 GHz Tested up to 29 dBm @ 20 to 30 GHz Tested up to 28 dBm @ 40 GHz		
6	Switching Speed	500 ns Max	39.2 ns		
7	DC Voltage	+12 V @ 50 mA Max -15 V @ 50 mA Max	+12 V @ 34 mA -15 V @ 20 mA	+12 V @ 34 mA -15 V @ 20 mA	+12 V @ 34 mA -15 V @ 20 mA

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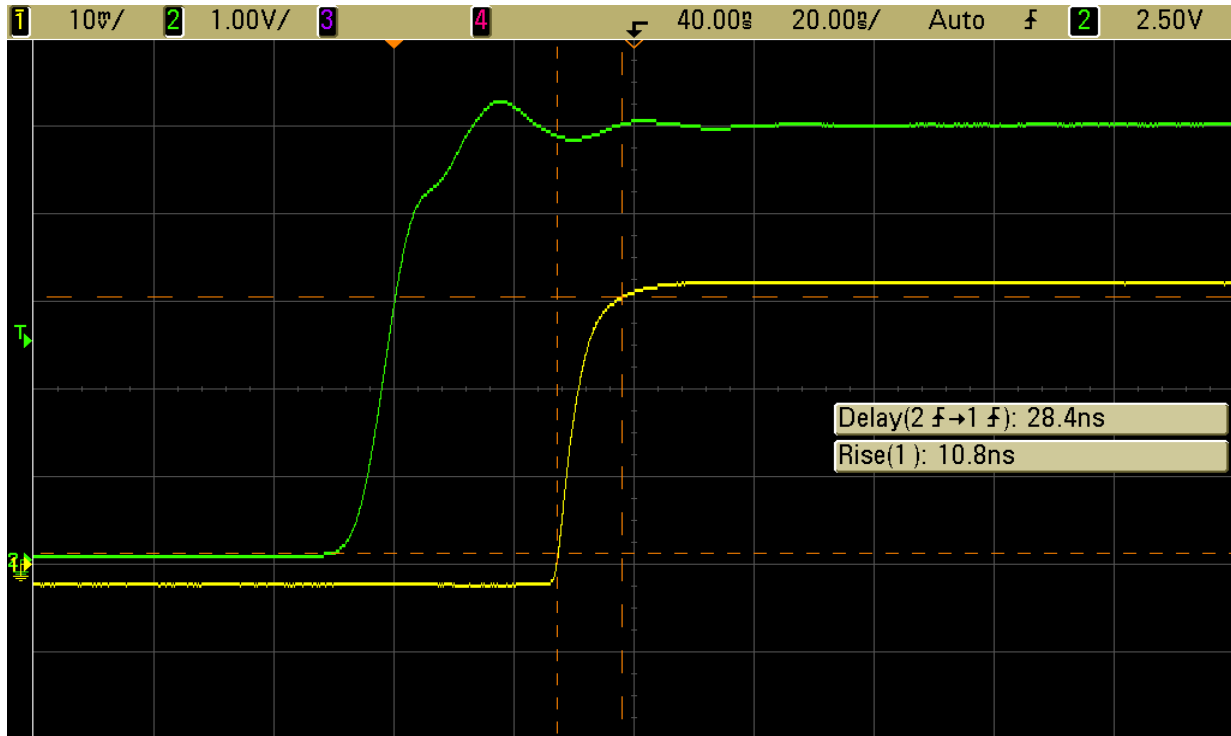
7309-A Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731  
Email: sales@quanticpmi.com

**TYPICAL CHARACTERISTICS  
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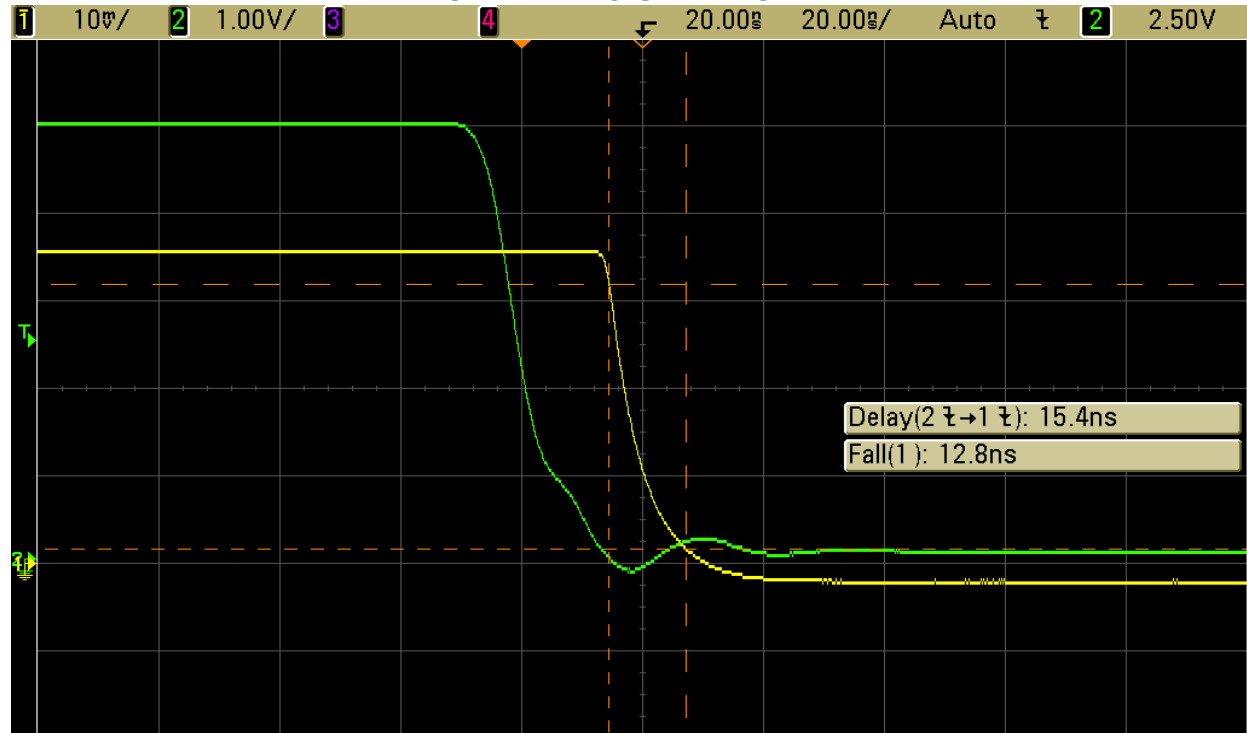
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**SWITCHING SPEED ON**



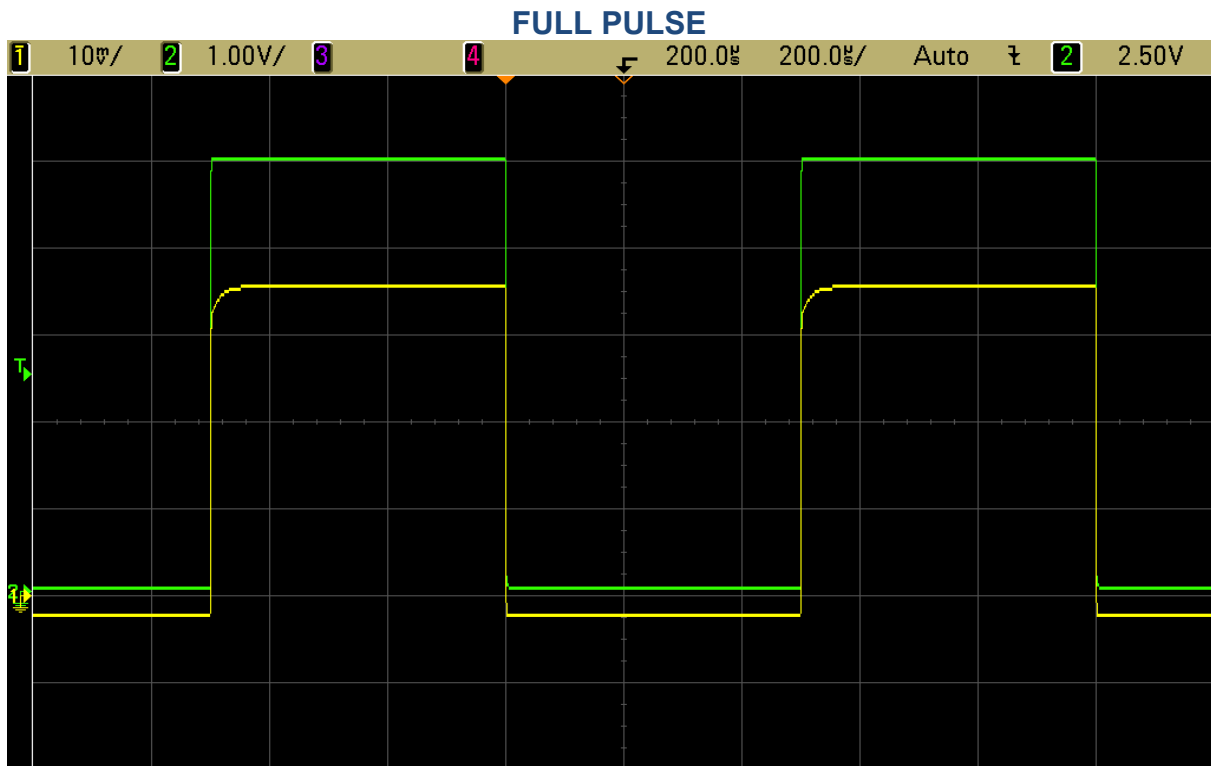
Green - TTL, Yellow - RF, Switching Speed - 39.2 ns

**SWITCHING SPEED OFF**



Green - TTL, Yellow - RF, Switching Speed - 28.2 ns

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Green - TTL, Yellow - RF