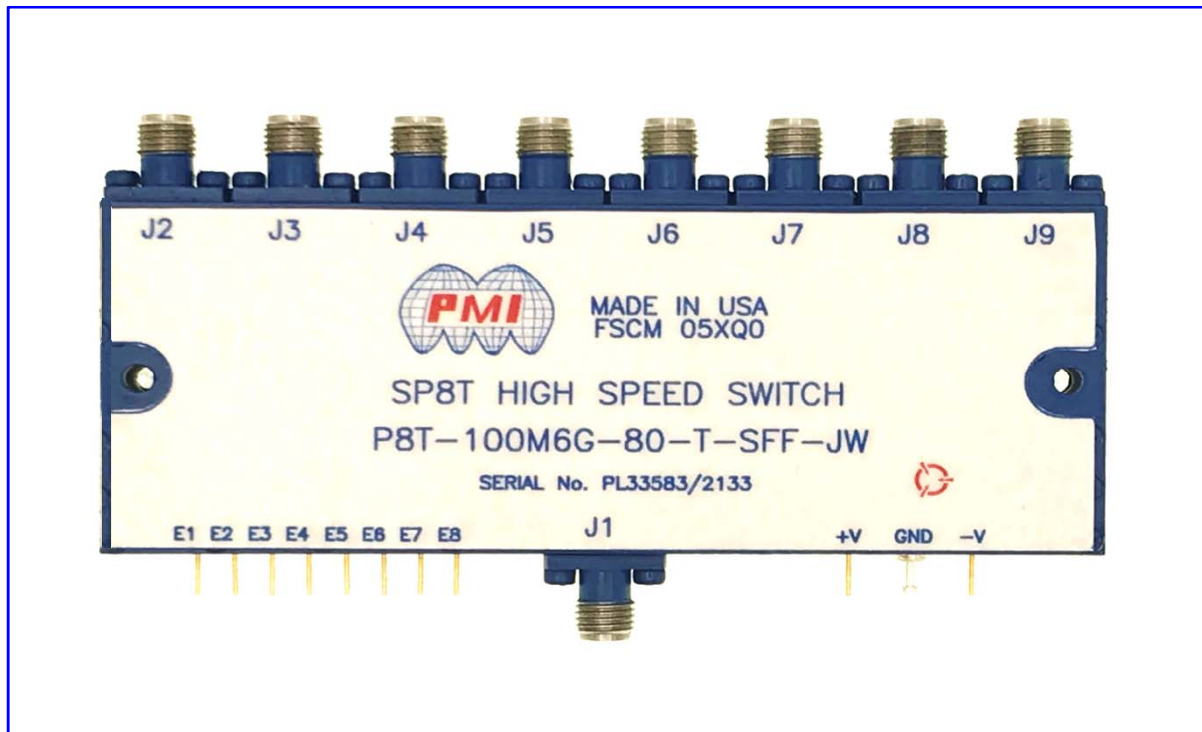




Typical Characteristics ON P8T-100M6G-80-T-SFF-JW

THE MODEL P8T-100M6G-80-T-SFF-JW IS A HIGH SPEED, SINGLE POLE, EIGHT THROW, ABSORPTIVE SWITCH CAPABLE OF SWITCHING WITHIN 200 ns. THE FRQUENCY RANGE IS 0.1 TO 6.0 GHz AND THIS SWITCH HAS OVER 70 dB OF ISOLATION.



August 21, 2021



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Typical Characteristics ON P8T-100M6G-80-T-SFF-JW

Outline Drawing

DESCRIPTION

THE MODEL P8T-100M6G-80-T-SFF-JW IS A HIGH SPEED, SINGLE POLE, EIGHT THROW, ABSORPTIVE SWITCH CAPABLE OF SWITCHING WITHIN 200ns. THE FREQUENCY RANGE IS 0.1 TO 6.0 GHz AND THIS SWITCH HAS OVER 70dB OF ISOLATION.

SPECIFICATIONS

- FREQUENCY: 100 MHz TO 6.0 GHz
- INSERTION LOSS: 4.5dB Typ., 4.75dB Maximum
- OPERATING INPUT POWER: +23dBm CW Maximum
- SURVIVAL INPUT POWER: +33dBm CW Maximum
- VSWR: 2.0:1 Maximum
- ISOLATION: 80dB Typ., 70dB Minimum
- SWITCHING SPEED: 150nsec Typ., 200nsec Maximum
- CONTROL SIGNAL: EIGHT LINE TTL
 - E1 CONTROLS J1-J2
 - E2 CONTROLS J1-J3
 - E3 CONTROLS J1-J4
 - E4 CONTROLS J1-J5
 - E5 CONTROLS J1-J6
 - E6 CONTROLS J1-J7
 - E7 CONTROLS J1-J8
 - E8 CONTROLS J1-J9
 - "0" ISOLATION
 - "1" INSERTION LOSS
- DC VOLTAGE: +5VDC & -12VDC
- POWER AND CONTROL: SOLDER PINS
- CONNECTORS: SMA (F)
- FINISH: PAINTED BLUE
- SIZE: 4.0" X 1.5" X 0.4"

ENVIRONMENTAL RATINGS

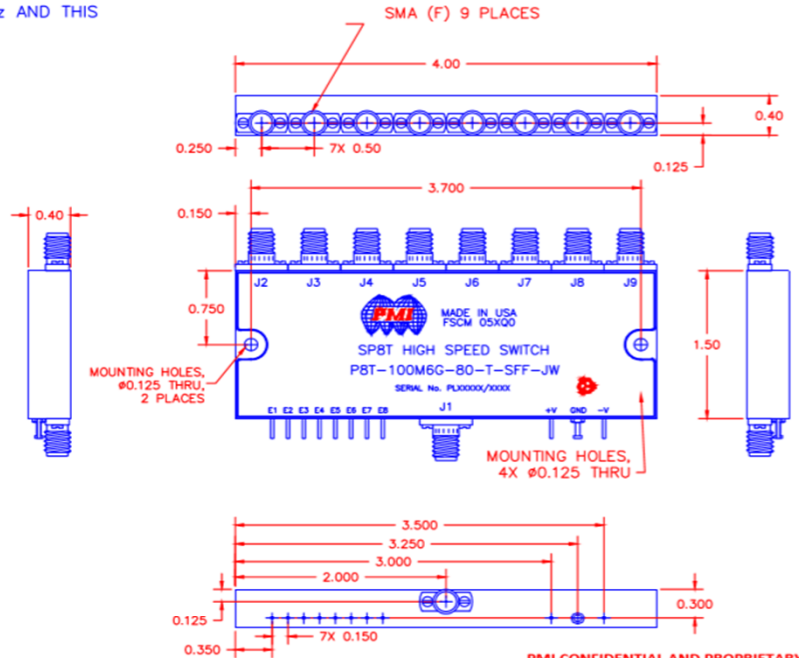
- TEMPERATURE: -45°C TO +85°C (OPERATING)
-54°C TO +125°C (STORAGE)
- HUMIDITY: MIL-STD-202F, METHOD 103B COND. B
- SHOCK: MIL-STD-202F, METHOD 213B COND. C
- VIBRATION: MIL-STD-202F, METHOD 204D COND. B

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: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ±0.020
X.XXX ±0.010
WEIGHT: 2.75 oz.

| REVISIONS | | | | |
|-----------|------|------------------|---------|----------|
| ZONE | REV. | DESCRIPTION | DATE | APPROVED |
| | A1 | ORIGINAL RELEASE | 8/10/21 | |



PMI CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.

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TEL: 301-662-5019 FAX: 301-662-1731
WEBSITE: www.pmi-rf.com
E-MAIL: sales@pmi-rf.com
ISO 9001:2000 CERTIFIED



| APPROVALS | | DATE | TITLE | | |
|--------------------------|--|---------|---|-------------------|---------------------|
| DRAWN <i>K. MASON</i> | | 12/2/14 | PRODUCT FEATURE P8T-100M6G-80-T-SFF-JW | | |
| CHECKED | | | SIZE A | FSCM NO. 05XQ0 | DWG NO. 27040760 |
| ISSUED | | | SCALE N:S | | REV. A1 |
| | | | | | SHEET 1 OF 1 |



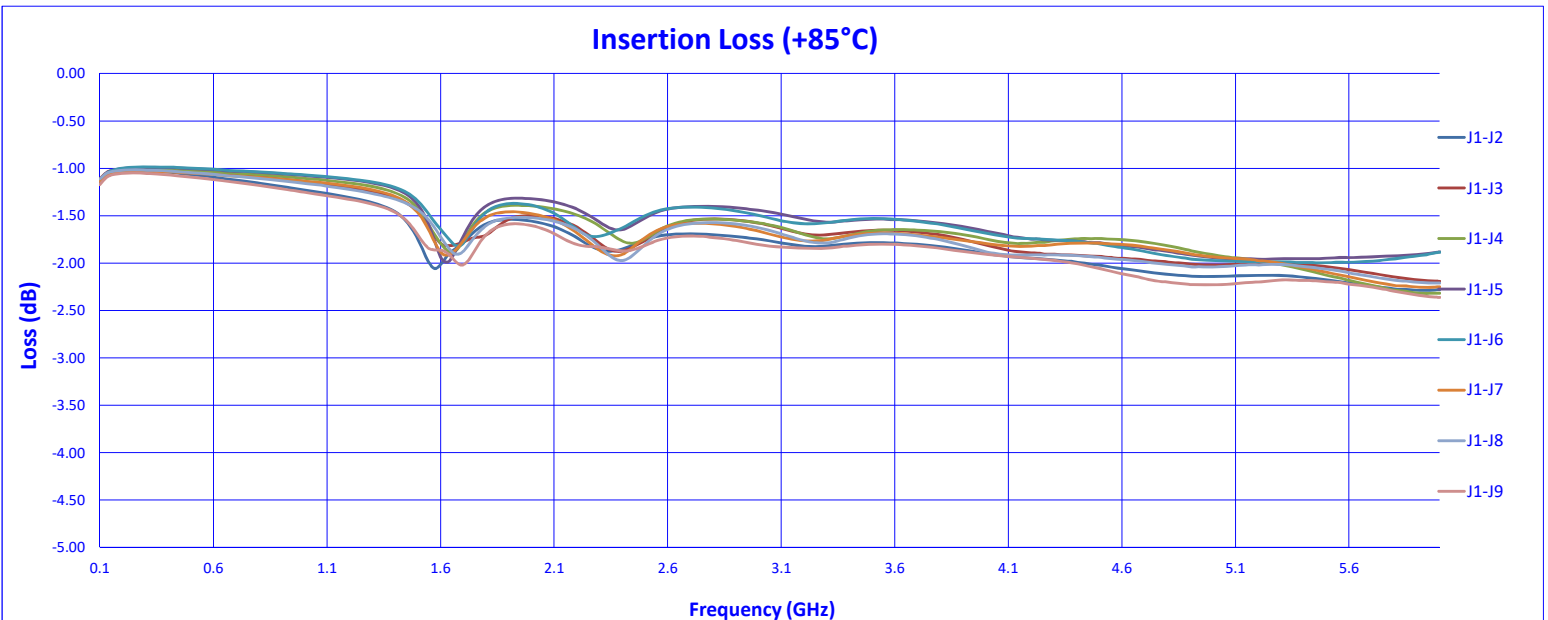
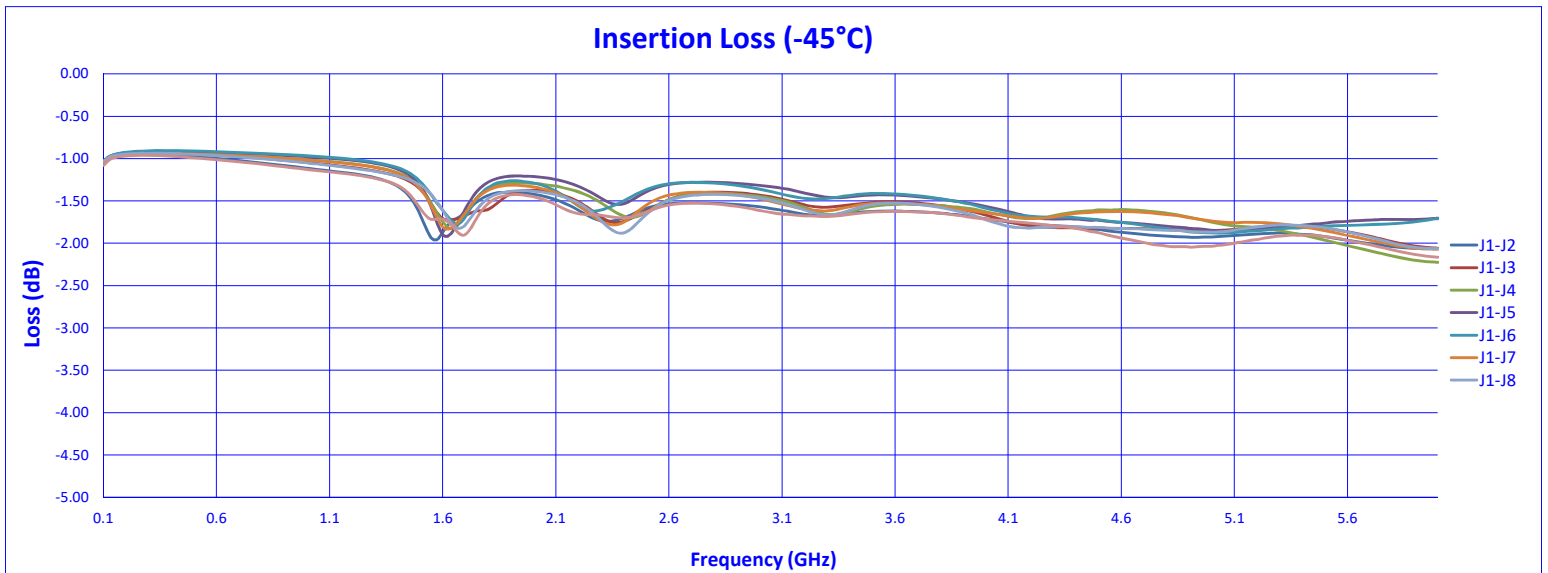
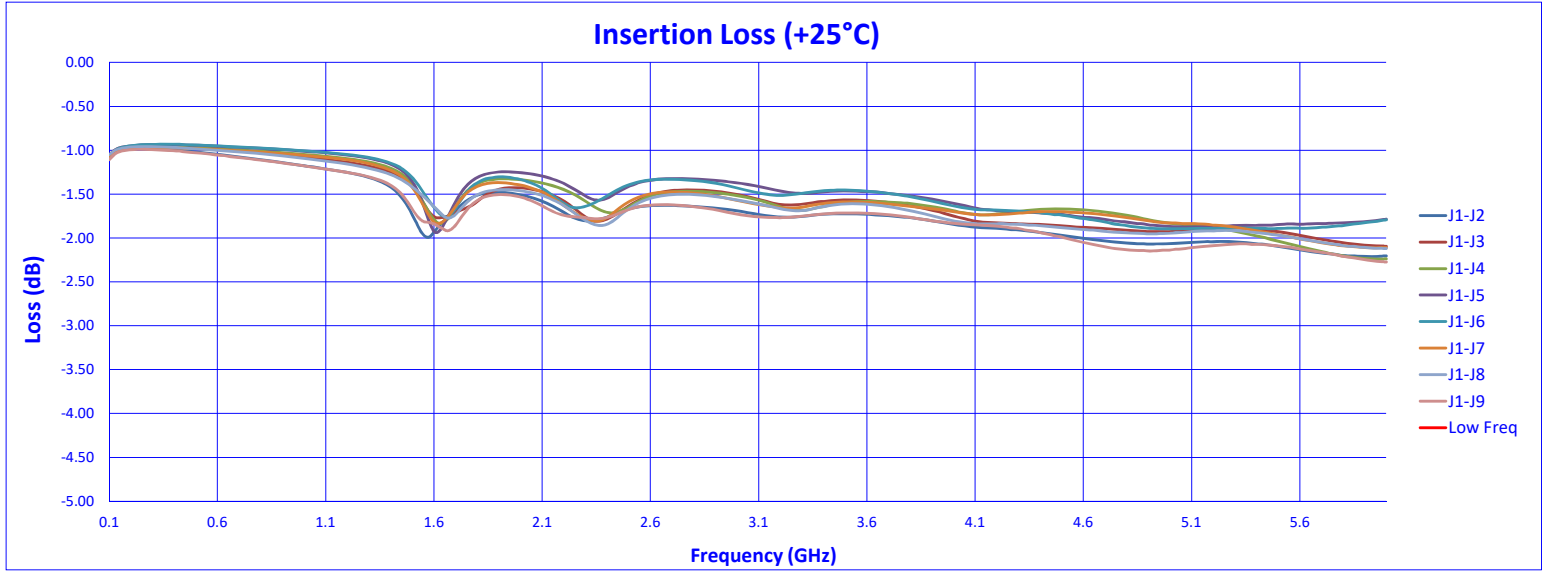
Typical Characteristics ON P8T-100M6G-80-T-SFF-JW

Technical Specifications

| TEST ITEM NO. | PARAMETERS | SPECIFIED VALUE | TEST RESULTS | | | QA QC |
|---------------|------------------------|--|--|------------------------------------|------------------------------------|-------|
| | | | +25°C | -45°C | +85°C | |
| 1 | Frequency Range: | 0.1 GHz TO 6.0 GHz | 0.1 GHz TO 6.0 GHz | 0.1 GHz TO 6.0 GHz | 0.1 GHz TO 6.0 GHz | |
| 2 | Insertion Loss: | 4.5 dB Typ. 4.75 dB Max. | 2.3 dB | 2.2 dB | 2.4 dB | |
| 3 | Isolation: | 80 dB Typ. 70 dB Min. | 83 dB | 81.1 dB | 82.5 dB | |
| 4 | VSWR: In/Out | 2.0:1 Max. | 1.8:1 | 1.9:1 | 1.8:1 | |
| 5 | Operating Input Power: | +23 dBm Max. | +23 dBm | | | |
| 6 | Survival Input Power: | +33 dBm Max. | +33 dBm | | | |
| 7 | Switching Speed: | 150 ns Typ. 200 ns Max. | Rise Time - 9.1 ns Fall Time - 21.6 ns Delay ON - 56.4 ns Delay OFF - 59.2 ns | | | |
| 8 | Video Leakage: | Unspecified | 2.03 Vpp | | | |
| 9 | DC Supply: | +5 VDC -12 VDC | +5 VDC @ 411 mA -12VDC @ 65 mA | +5 VDC @ 413 mA -12 VDC @ 65 mA | +5 VDC @ 409 mA -12 VDC @ 65 mA | |
| 10 | Control Signal: | EIGHT LINE TTL: "0" ISOLATION "1" INSERTION LOSS E1: J1-J2 E2: J1-J3 E3: J1-J4 E4: J1-J5 E5: J1-J6 E6: J1-J7 E7: J1-J8 E8: J1-J9 | Pass | | | |

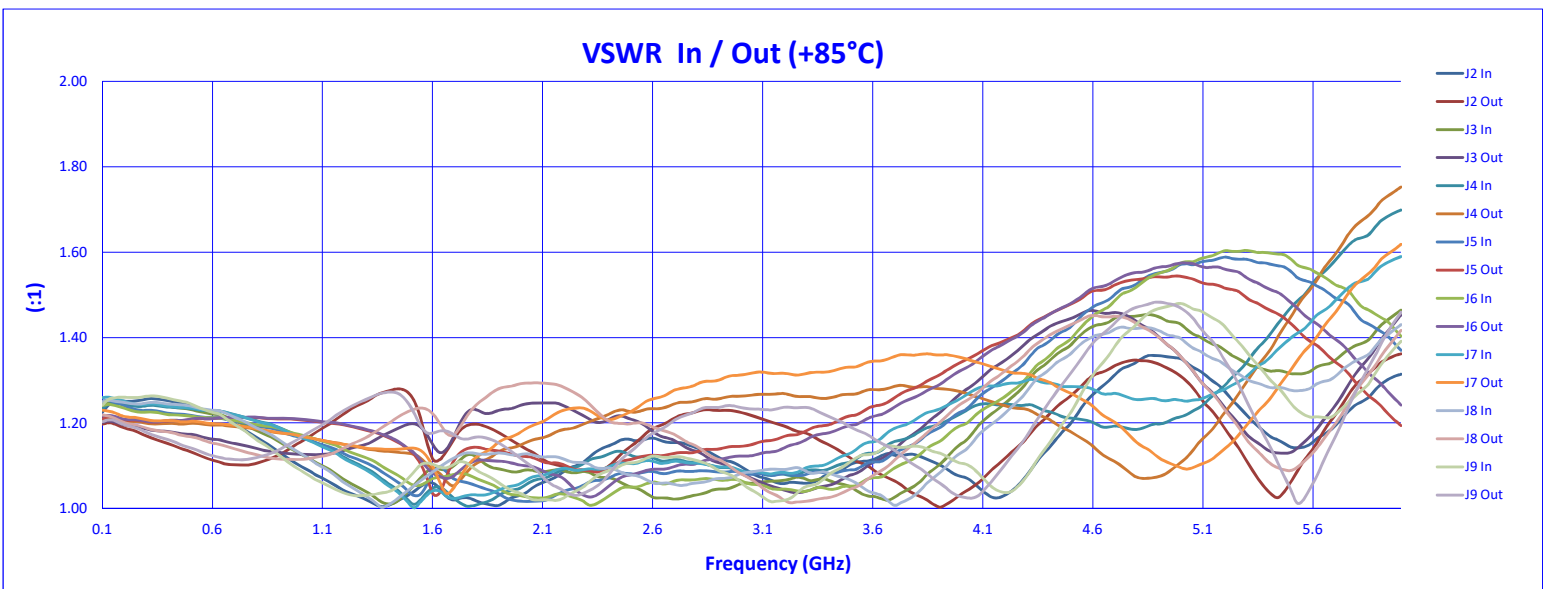
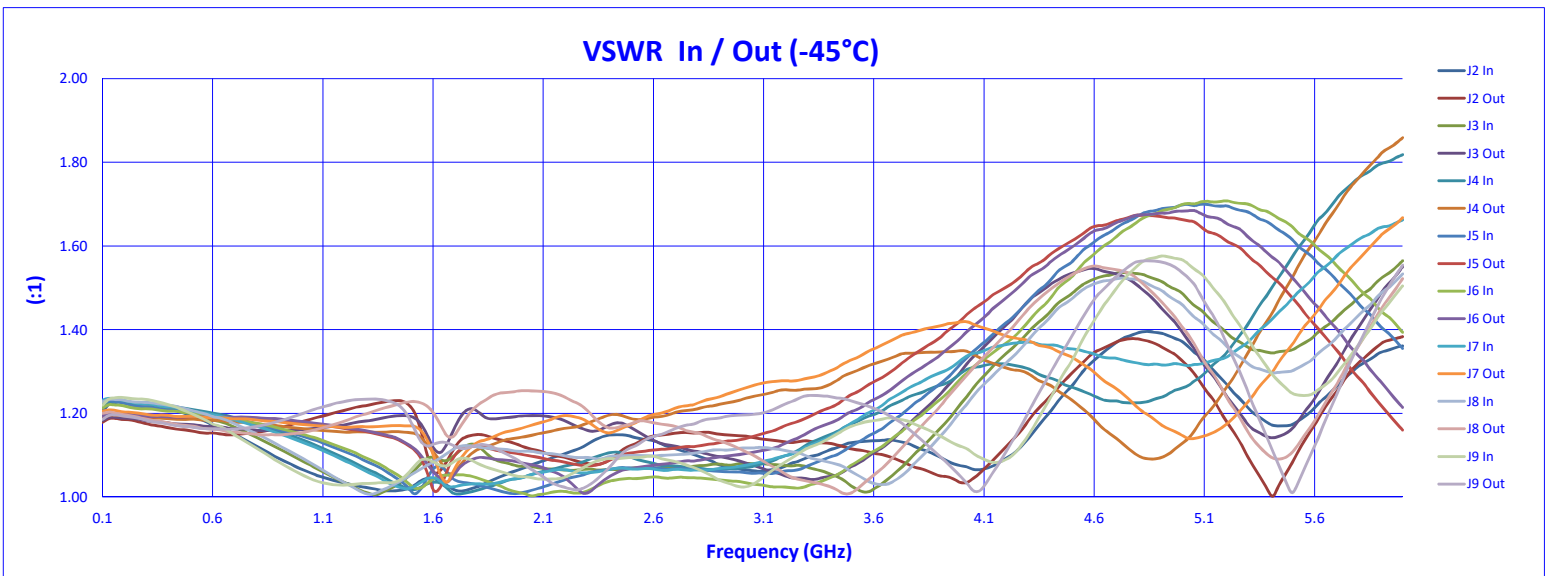
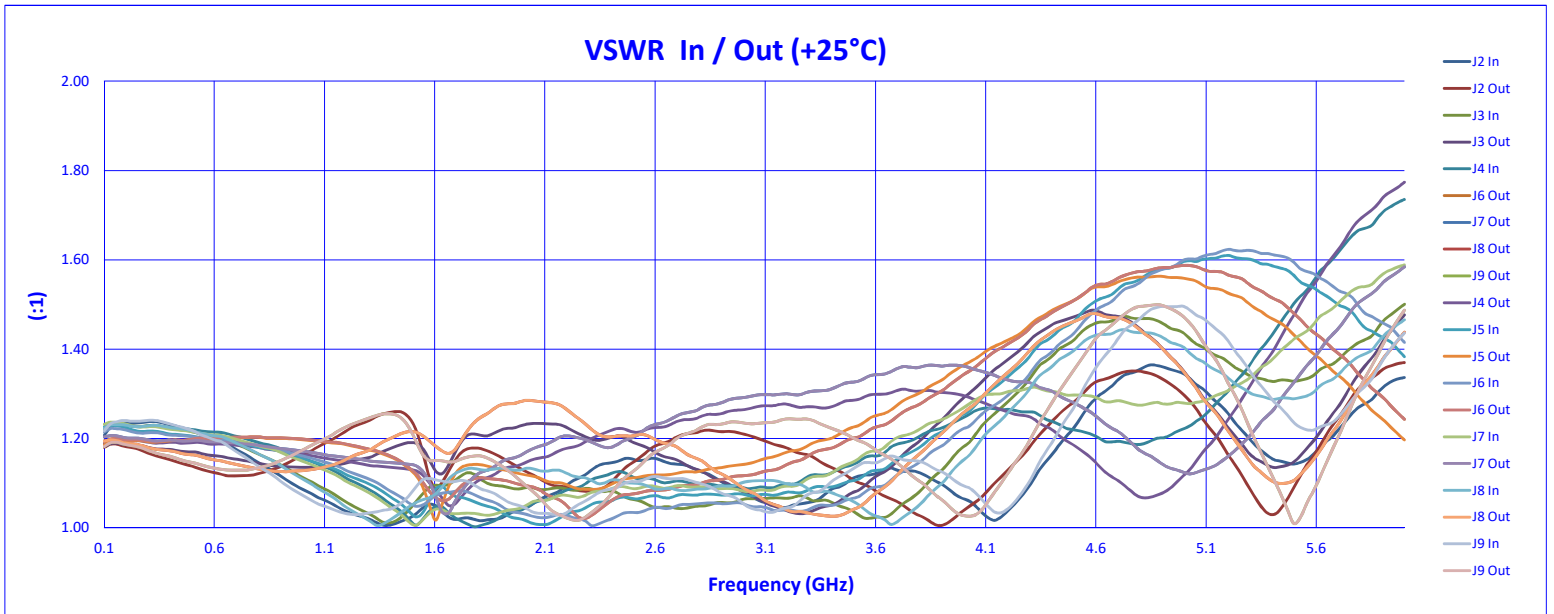


Typical Characteristics ON P8T-100M6G-80-T-SFF-JW



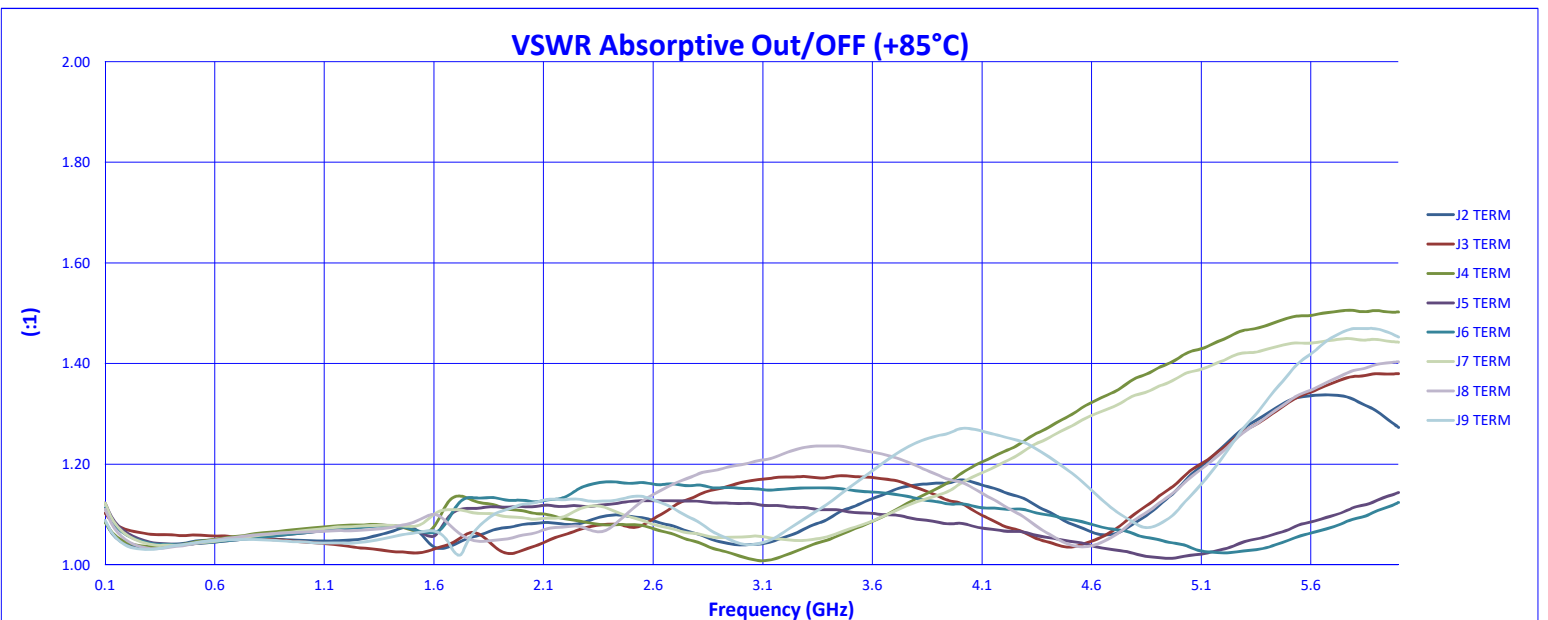
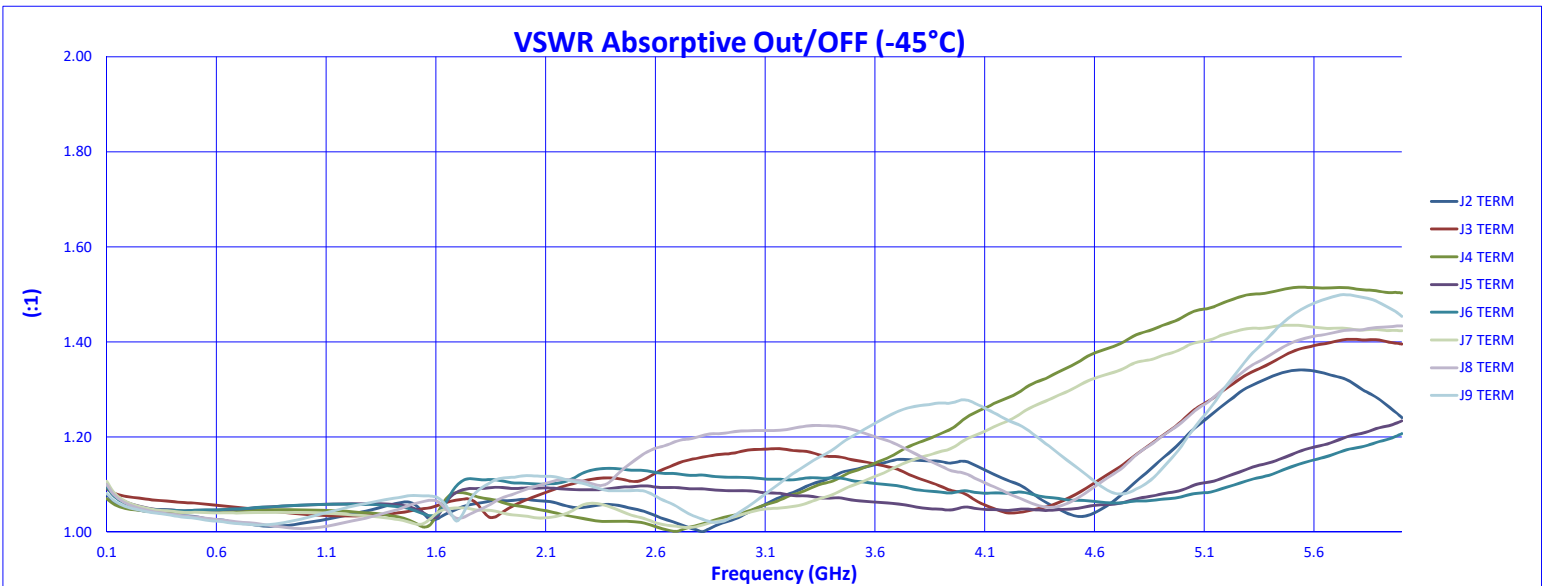
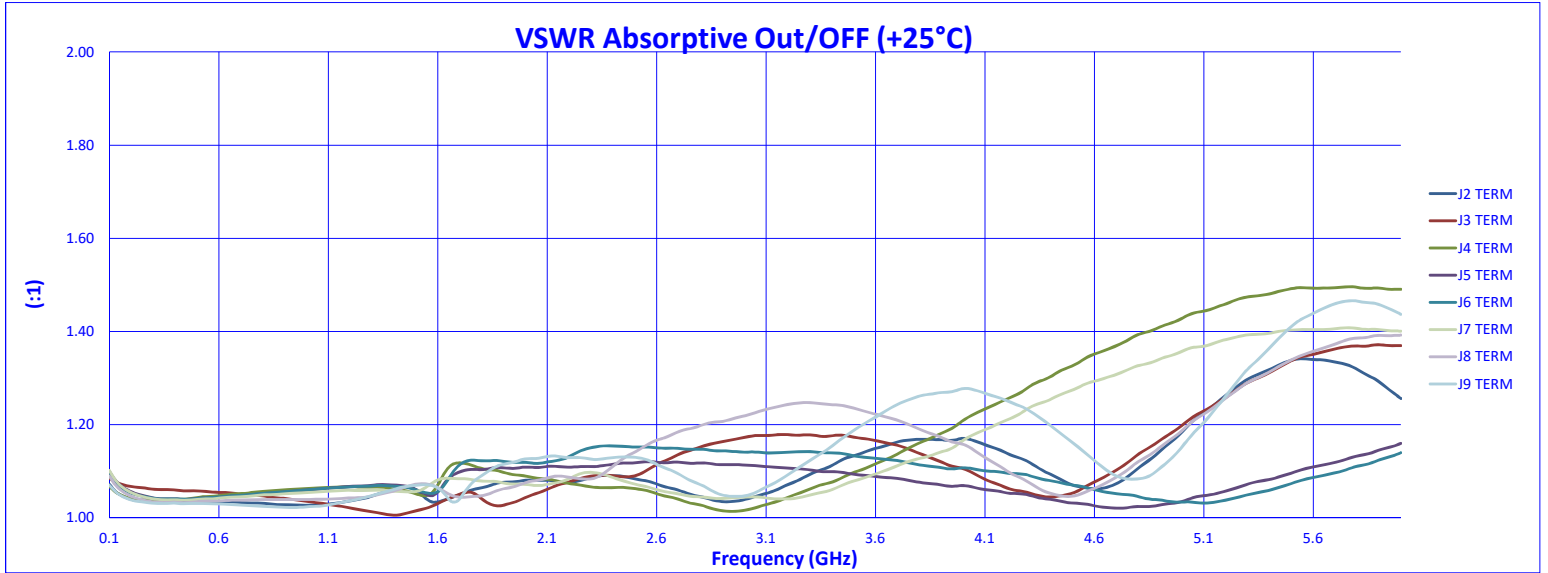


Typical Characteristics ON P8T-100M6G-80-T-SFF-JW



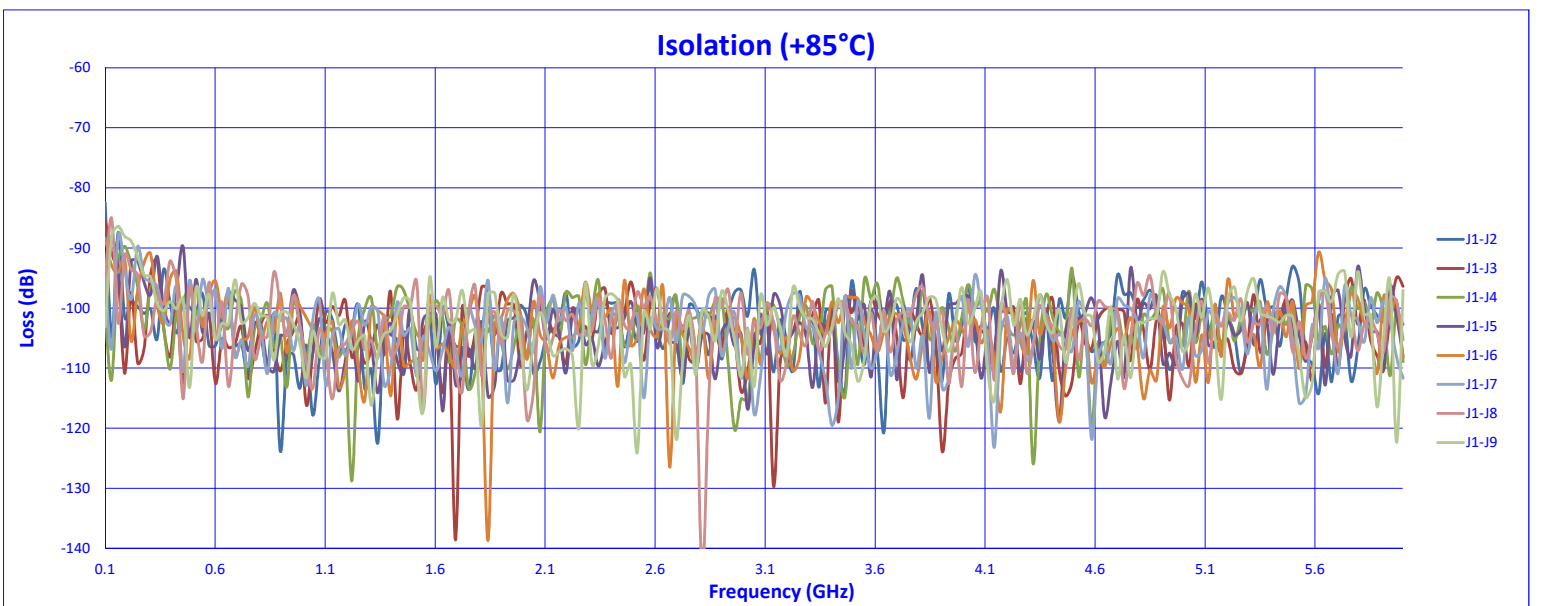
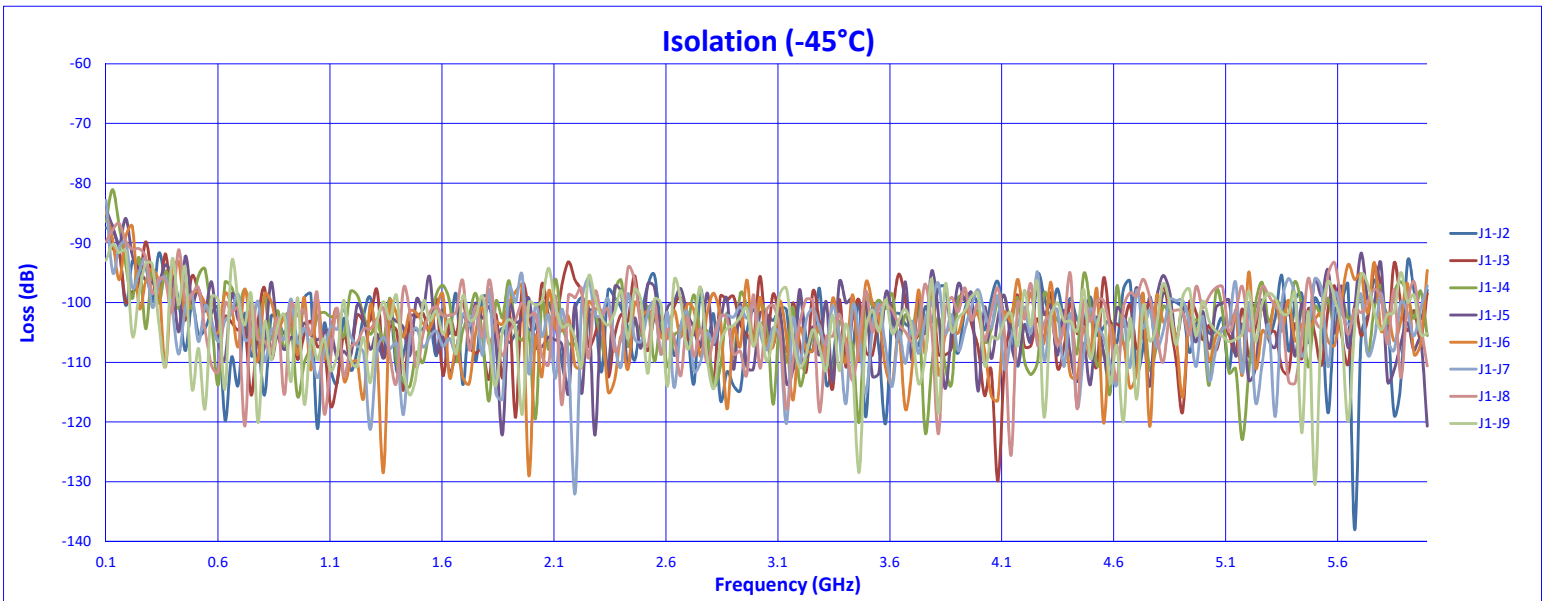
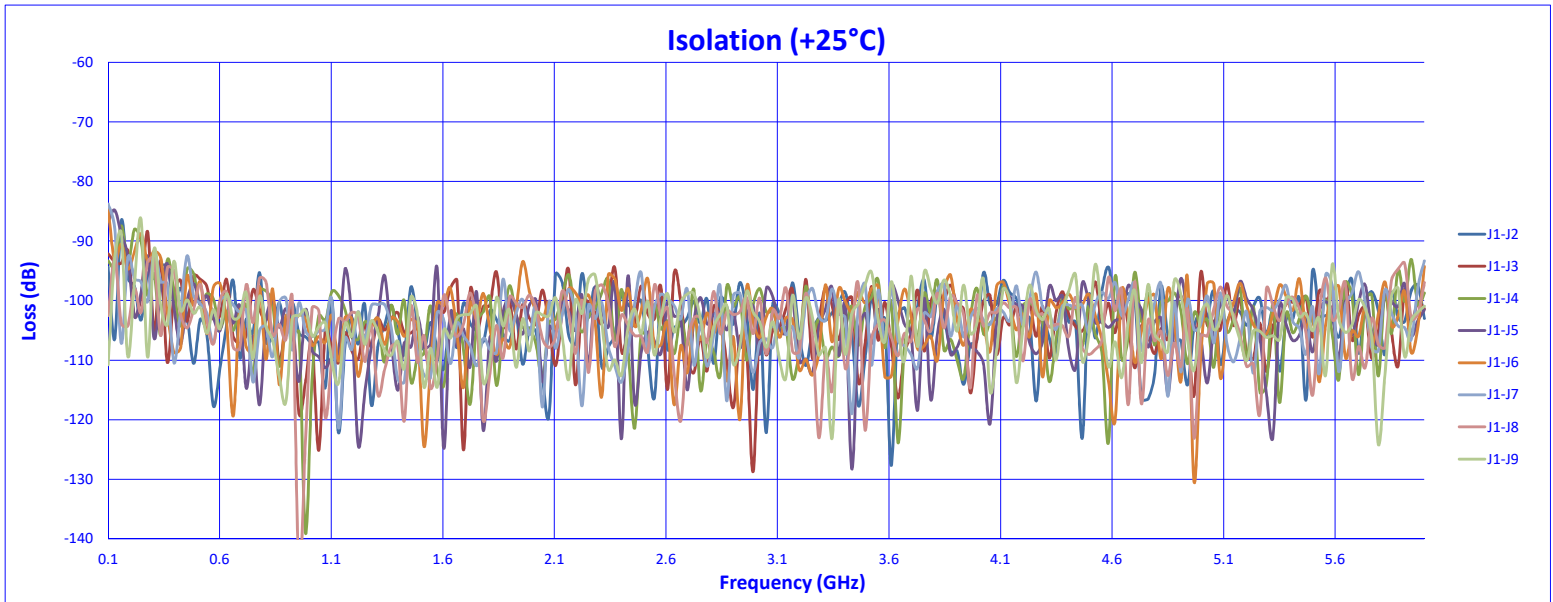


Typical Characteristics ON P8T-100M6G-80-T-SFF-JW



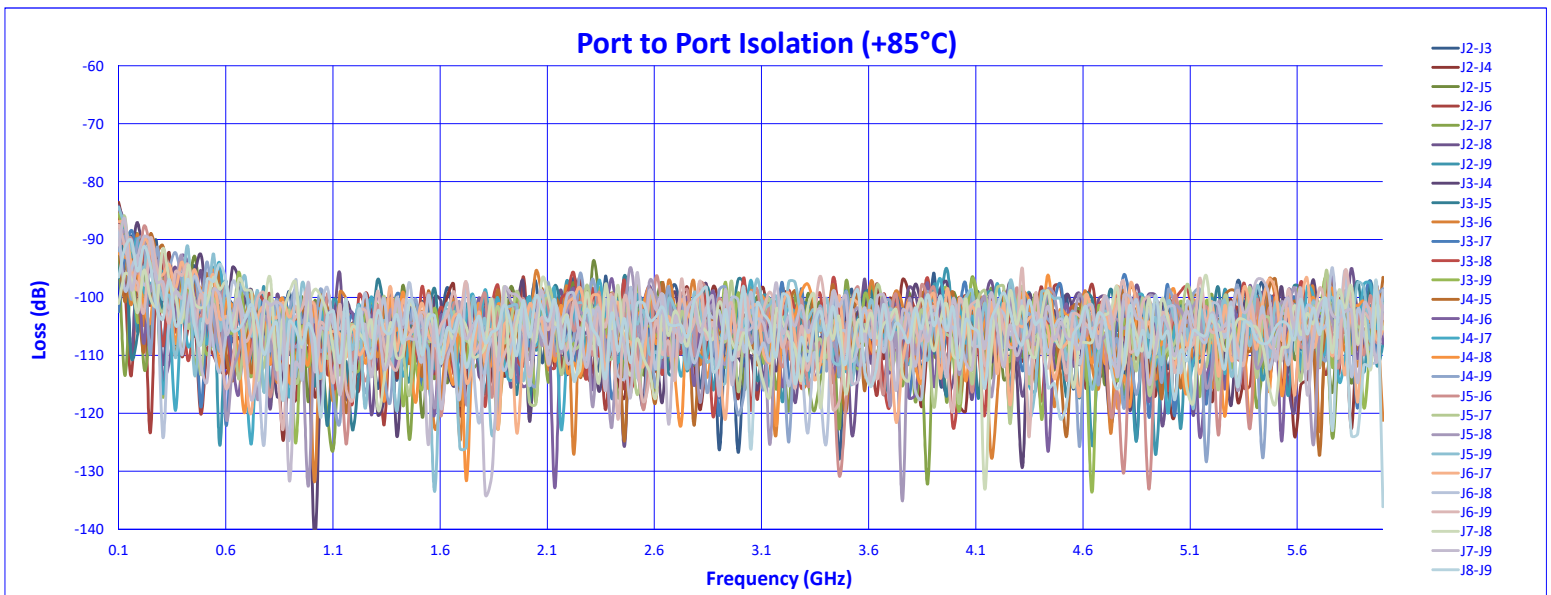
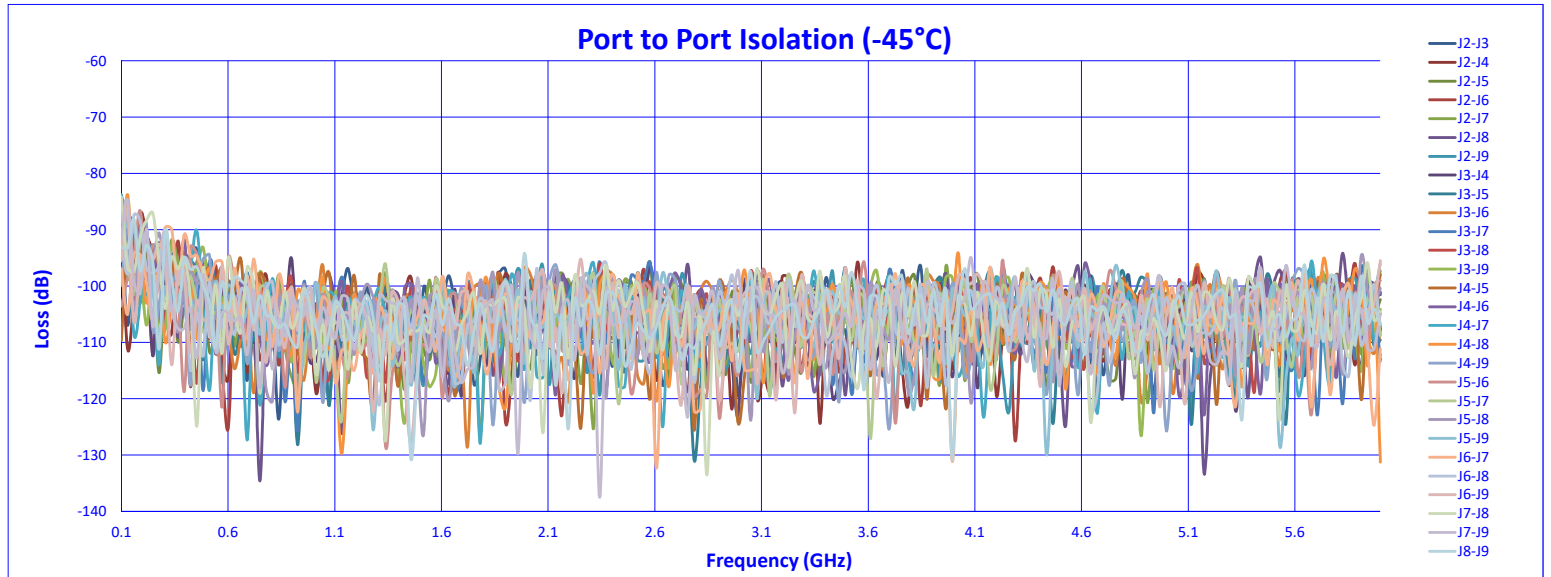
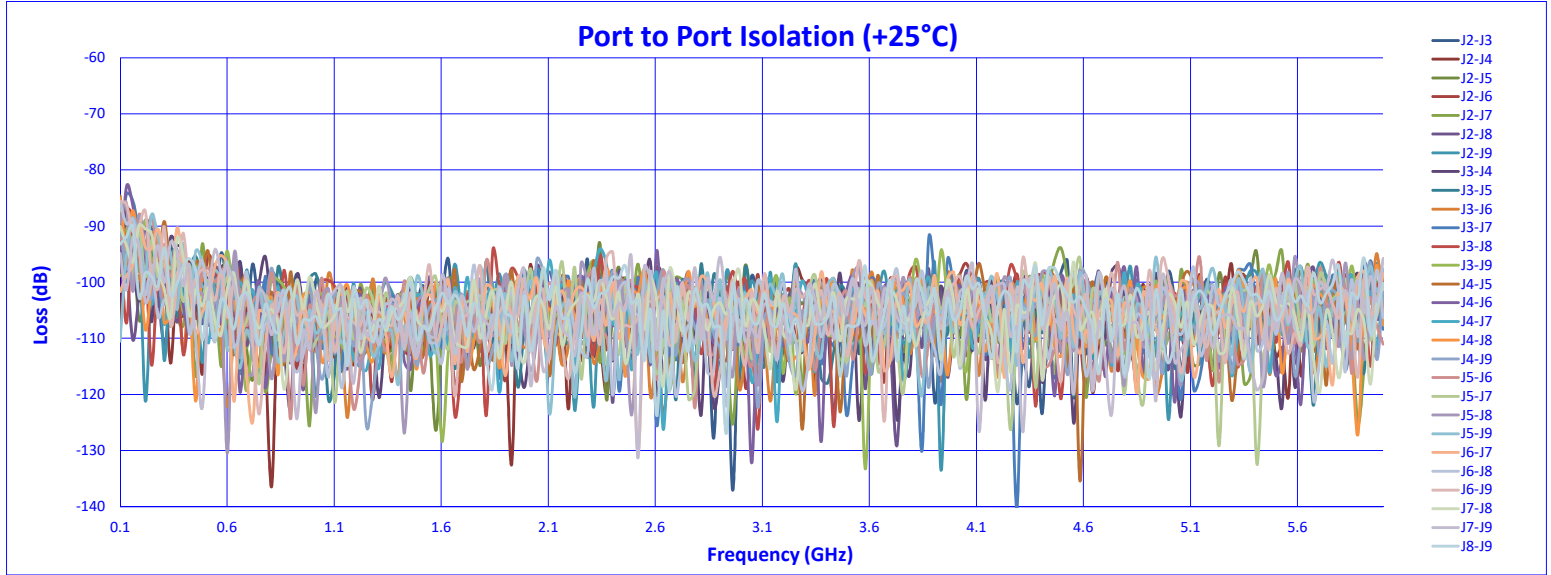


Typical Characteristics ON P8T-100M6G-80-T-SFF-JW



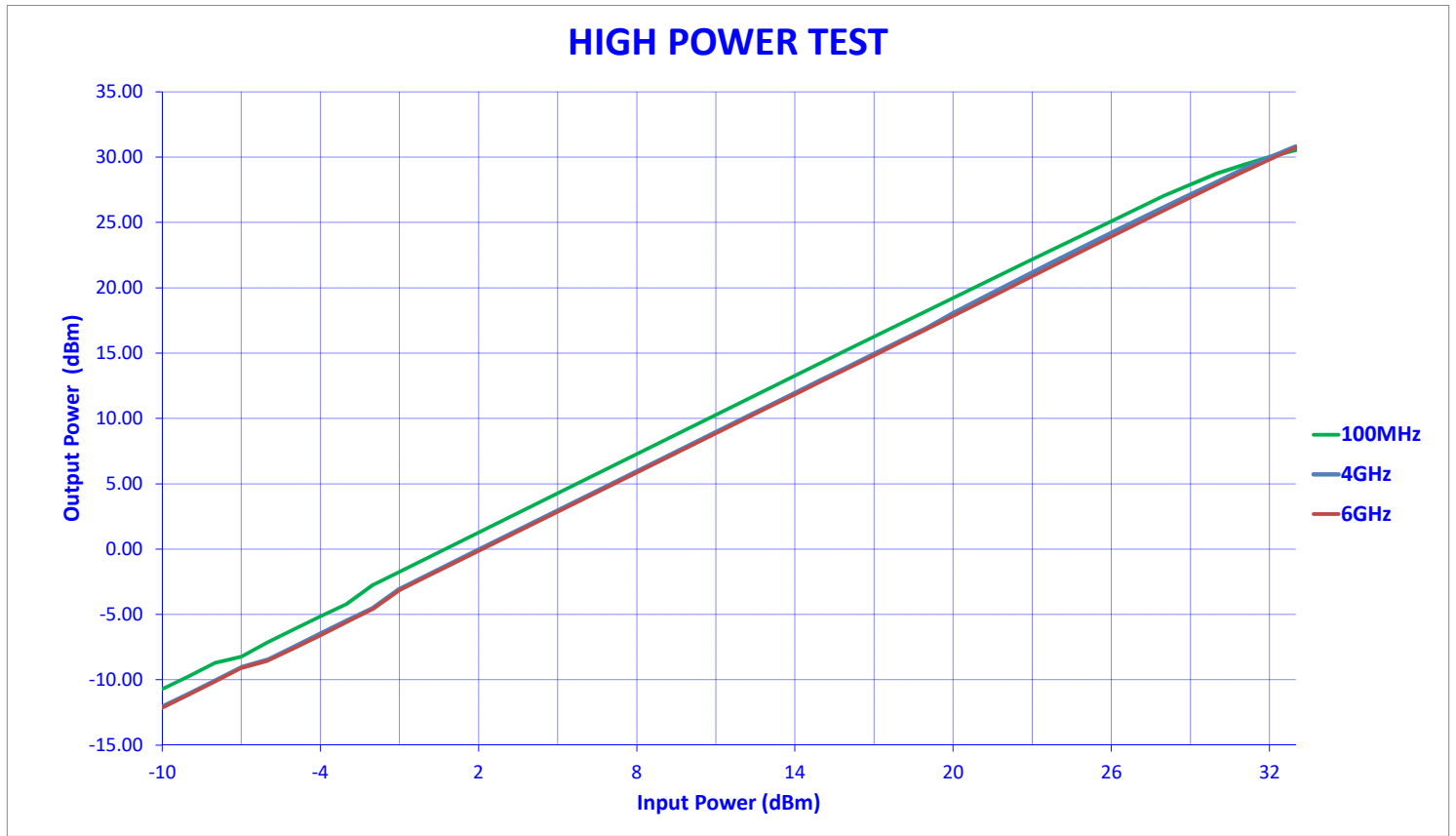


Typical Characteristics ON P8T-100M6G-80-T-SFF-JW





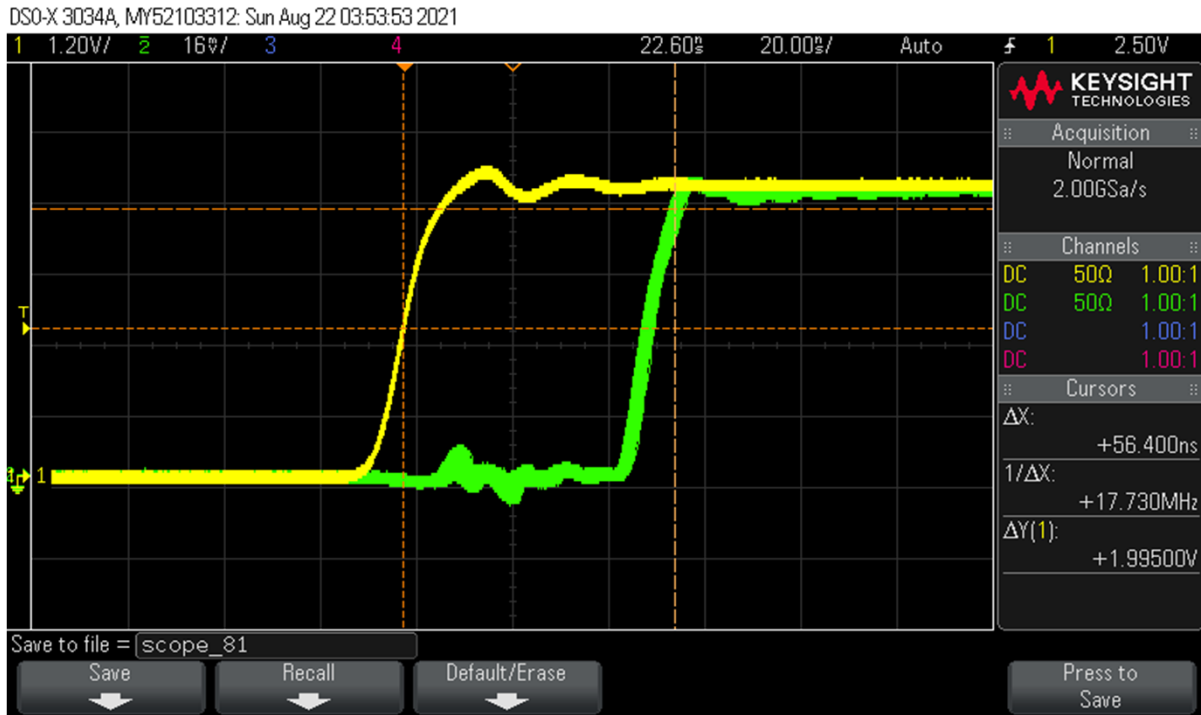
Typical Characteristics ON P8T-100M6G-80-T-SFF-JW



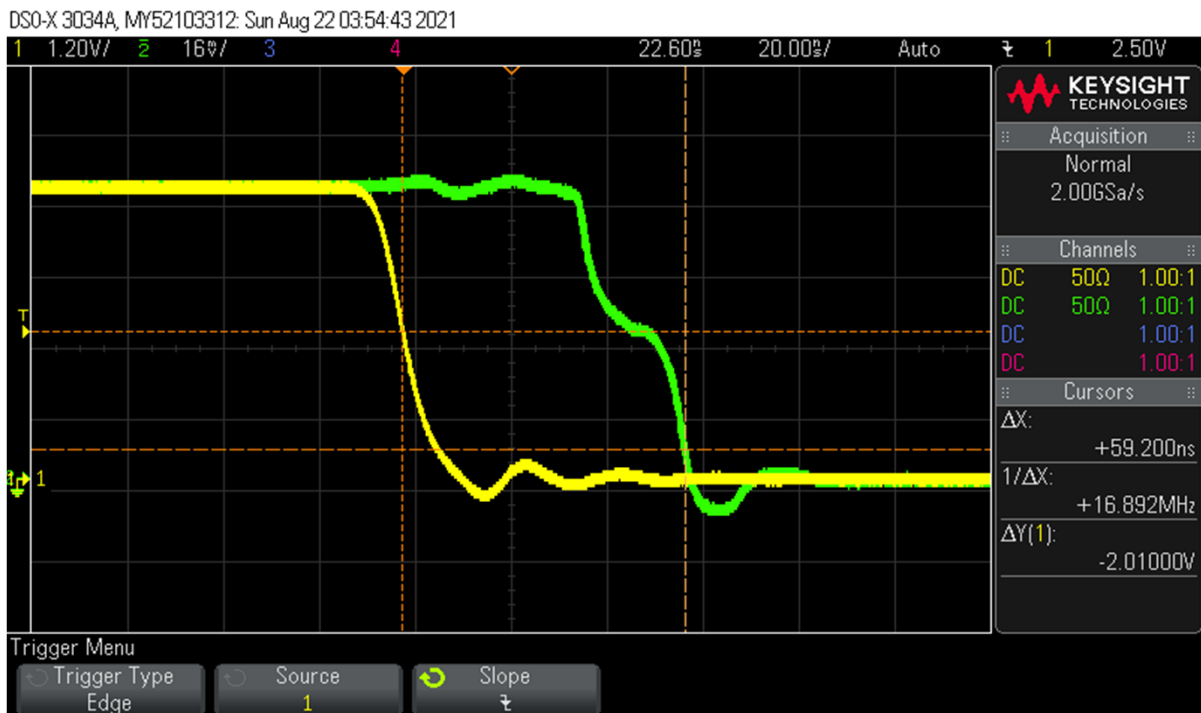


Typical Characteristics ON P8T-100M6G-80-T-SFF-JW

Switching Speed ON
20 ns Per Div.
Measured Value (56.4 ns)



Switching Speed OFF
20 ns Per Div.
Measured Value (59.2 ns)

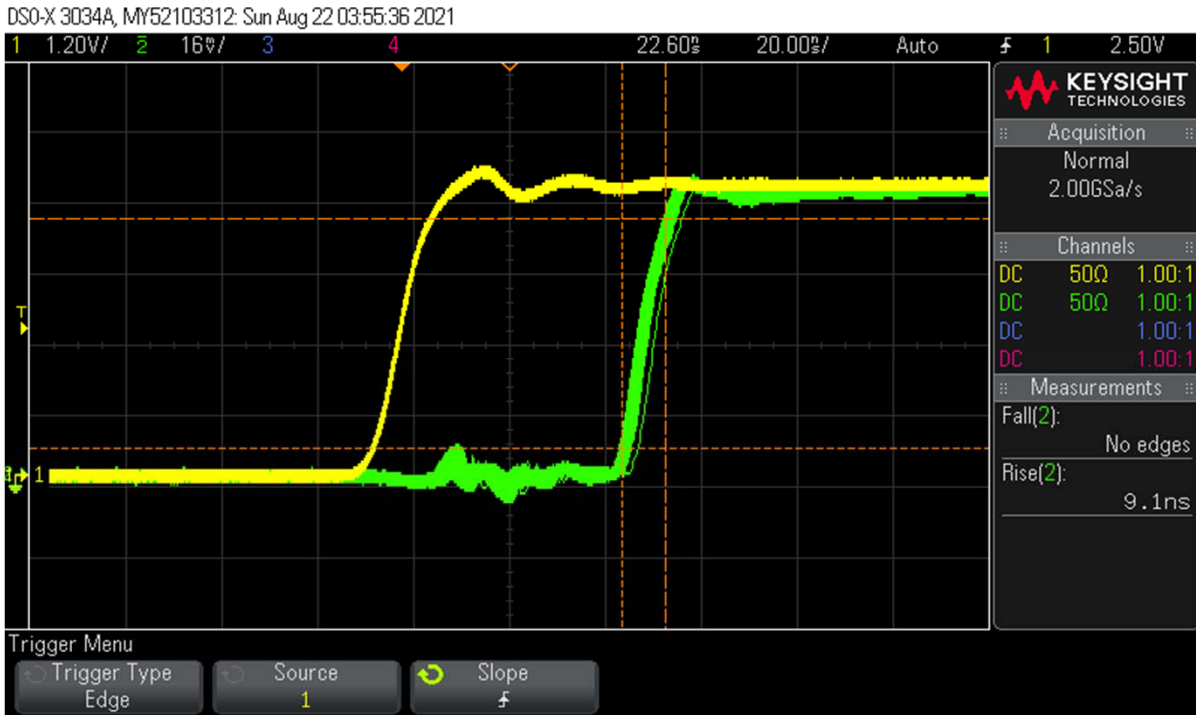


Green Trace = RF Signal
Yellow Trace = TTL Signal

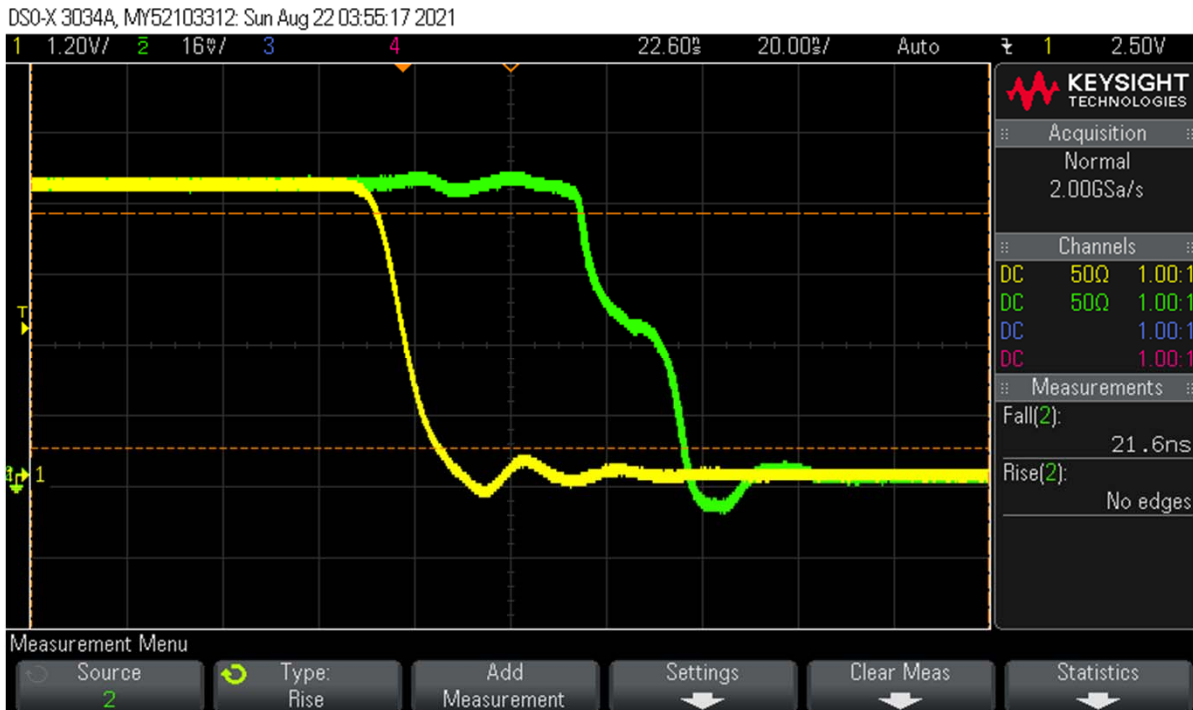


Typical Characteristics ON P8T-100M6G-80-T-SFF-JW

Rise Time
20 ns Per Div.
Measured Value (9.1 ns)



Fall Time
20 ns Per Div.
Measured Value (21.6 ns)

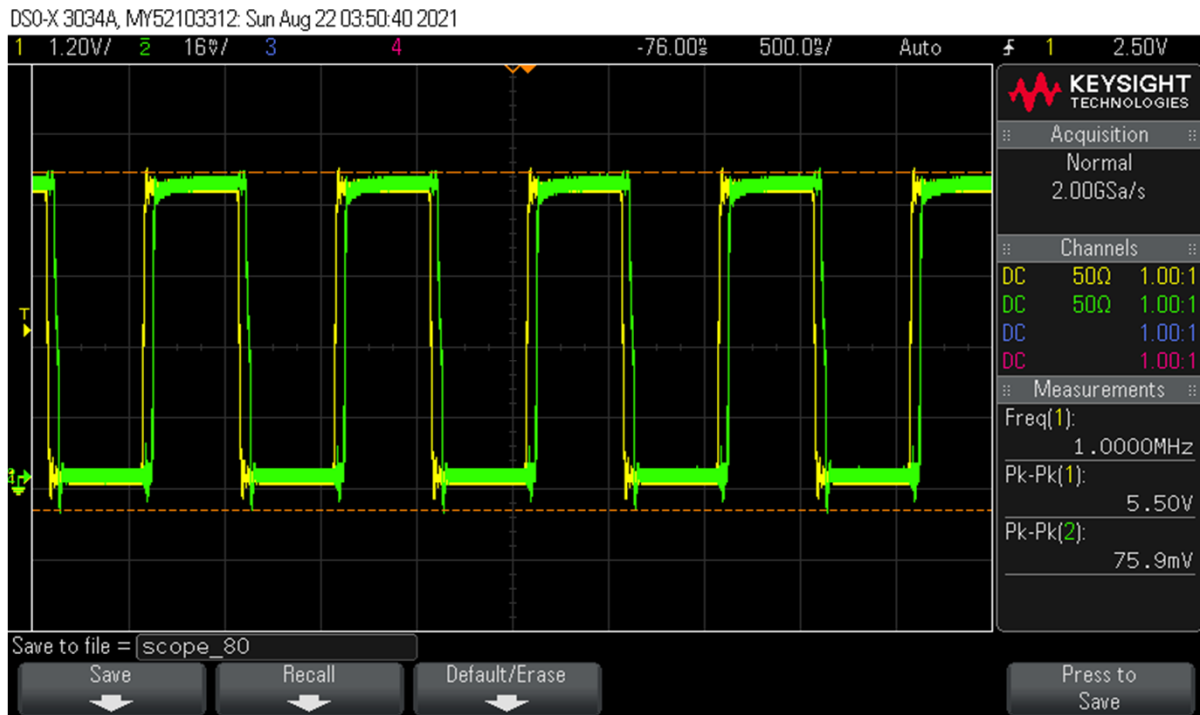


Green Trace = RF Signal
Yellow Trace = TTL Signal



Typical Characteristics ON P8T-100M6G-80-T-SFF-JW

Full Pulse
50 ns Per Div.

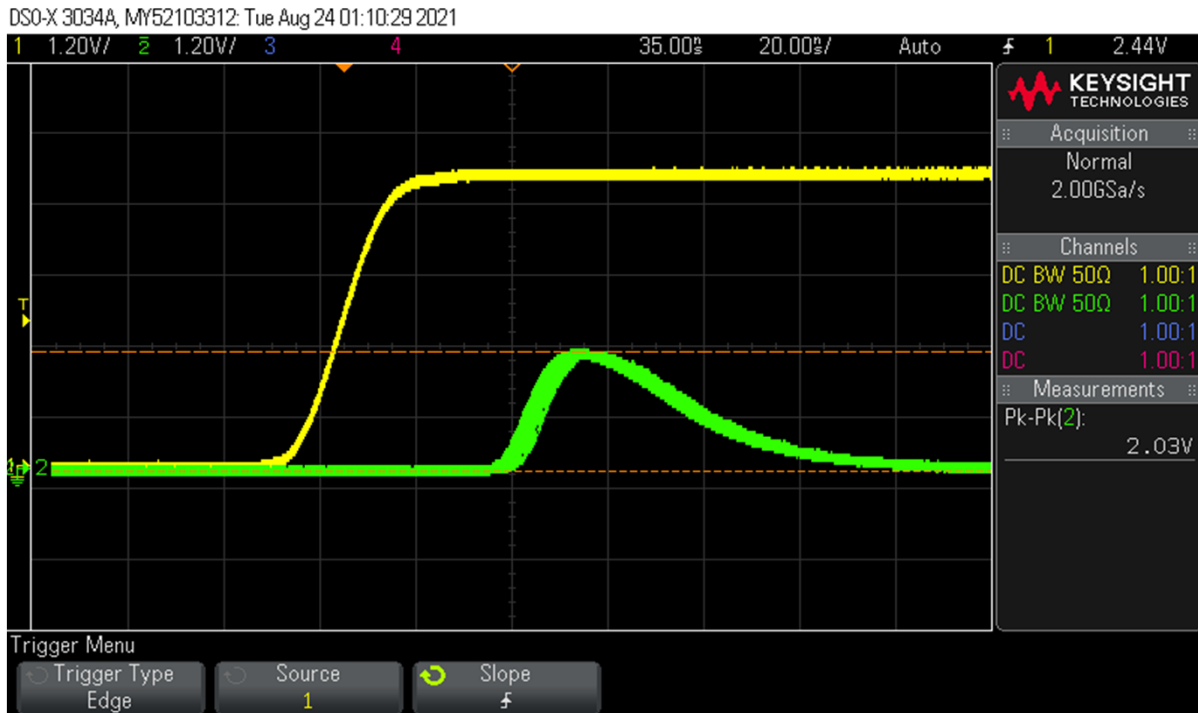


Green Trace = RF Signal
Yellow Trace = TTL Signal



Typical Characteristics ON P8T-100M6G-80-T-SFF-JW

Output Video Transients - Toggle High
BW = 350MHz, 50Ω
Measured Value (2.03 V P-P)



Output Video Transients - Toggle Low
BW = 350MHz, 50Ω
Measured Value (1.93 V P-P)



TTL Signal (Trigger) = Green
Video Signal = Yellow