



**TYPICAL CHARACTERISTICS
ON
P16T-100M40G-100-T-I-292**

Serial No. : PL21330/1728

**PMI MODEL: P16T-100M40G-100-T-I-292 IS A SINGLE POLE 16 THROW
SOLID STATE SWITCH OPERATING OVER THE 100 MHz TO 40 GHz
FREQUENCY RANGE. THIS MODEL OFFERS A TYPICAL INSERTION LOSS
OF 15 dB WHILE MAINTAINING A TYPICAL ISOLATION OF 80 dB.**



November 2, 2017

DESIGNED BY: PMI ENGINEERING

TESTED & REPORTED BY: Jerry N

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**TYPICAL CHARACTERISTICS
ON
P16T-100M40G-100-T-I-292**

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TYPICAL CHARACTERISTICS ON P16T-100M40G-100-T-I-292

OUTLINE DRAWING

DESCRIPTION

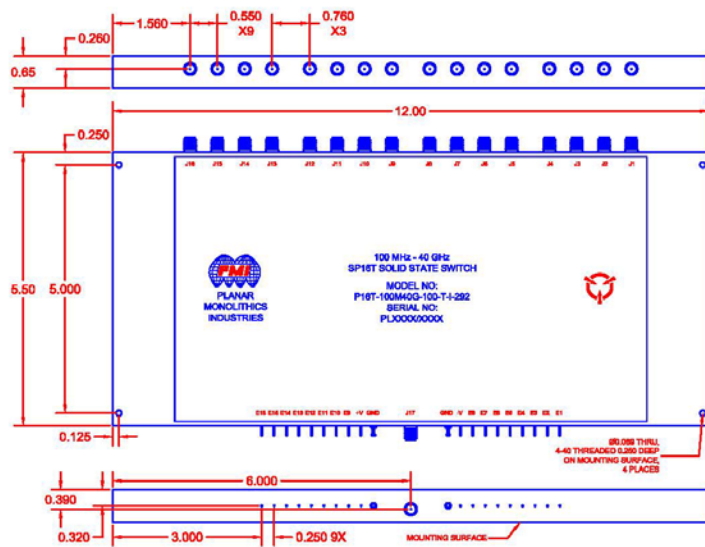
PMI MODEL: P16T-100M40G-100-T-I-292 IS A SINGLE POLE 16 THROW SOLID STATE SWITCH OPERATING OVER THE 100 MHz TO 40 GHz FREQUENCY RANGE. THIS MODEL OFFERS A TYPICAL INSERTION LOSS OF 15 dB WHILE MAINTAINING A TYPICAL ISOLATION OF 80 dB.

SPECIFICATIONS

- FREQUENCY: 0.1 TO 40 GHz
- INSERTION LOSS: 10 dB (0.1 TO 18 GHz) MAX
15 dB (18 TO 40 GHz) MAX
- INPUT & OUTPUT VSWR: 2.5:1 (0.1 TO 18 GHz) MAX
2.75:1 (18 TO 40 GHz) MAX
- ISOLATION: 70 dB (0.1 TO 1 GHz) MIN
80 dB (1 TO 18 GHz) MIN
80 dB (18 TO 40 GHz) MIN
- INPUT POWER: 20 dBm CW MAX
- SWITCHING SPEED: 50 ns TYP, 100ns MAX
- CONTROL SIGNAL: TTL LOGIC - "0" = ON "1" = OFF
- DC VOLTAGE: +5 V @ 800 mA MAX
-5 V @ 700 mA MAX
- RF CONNECTORS: 2.92 mm FEMALE
- SIZE: 12.0" x 5.5" x 0.65"
- FINISH: GOLD PLATED

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	ORIGINAL RELEASE	4/14/2017	
	A1	ECN # 17-0163	7/24/2017	

MECHANICAL OUTLINE



ENVIRONMENTAL RATINGS

- TEMPERATURE: -40 °C TO +85 °C (OPERATING)
-65 °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 OPERATING TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

PMI CONFIDENTIAL AND PROPRIETARY

ALL DIMENSIONS
ARE IN mm (INCH)
TOLERANCES:
X.XXX ± 0.250 (0.010)
X.XXX ± 0.254 (0.010)

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ISO 9001 CERTIFIED

APPROVALS		DATE	TITLE			REV.
DRAWN	<i>S. Palacios</i>	4/14/2017	PRODUCT FEATURE			
REVIEWED	<i>S.P.U.</i>	4/24/2017	P16T-100M40G-100-T-I-292			
ISSUED			SIZE	FRCH NO.	DWG NO.	
			A	05XQ0	27032520	A1
			SCALE	N:S	SHEET	1 OF 1



**TYPICAL CHARACTERISTICS
ON
P16T-100M40G-100-T-I-292**

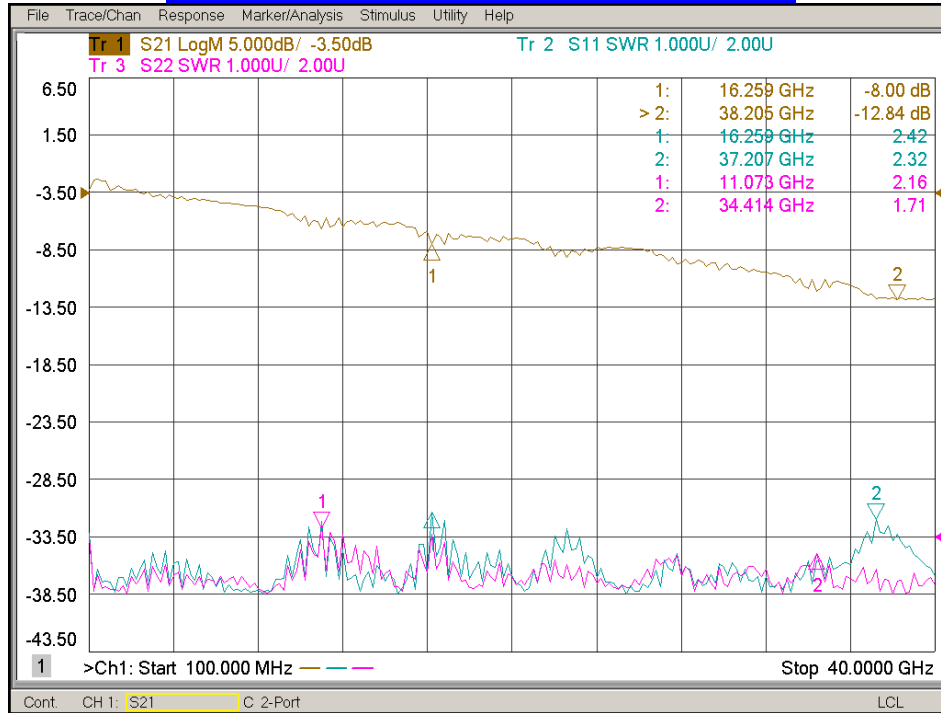
TEST DATA SUMMARY

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range	0.1 to 40 GHz	0.1 to 40 GHz (See Plots)	
2	Insertion Loss	10 dB (0.1 TO 18 GHz) MAX 15 dB (18 TO 40 GHz) MAX	8.23 dB 14.42 dB (See Plots)	
3	In/Out VSWR	2.5:1 (0.1 TO 18 GHz) MAX 2.75:1 (18 TO 40 GHz) MAX	2.49 :1 2.50 :1 (See Plots)	
4	Isolation	70 dB (0.1 TO 1 GHz) MIN 80 dB (1 TO 18 GHz) MIN 80 dB (18 TO 40 GHz) MIN	100.40 dB 93.82 dB 80.97 dB (See Plots)	
5	Input Power	20 dBm CW MAX	Pass	
6	Switching Speed	50 ns TYP, 100ns MAX	40 ns (See Plots)	
7	DC Supply	+5 V @ 800 mA MAX -5 V @ 700 mA MAX	+5 VDC @ 753 mA -5 VDC @ 495 mA	

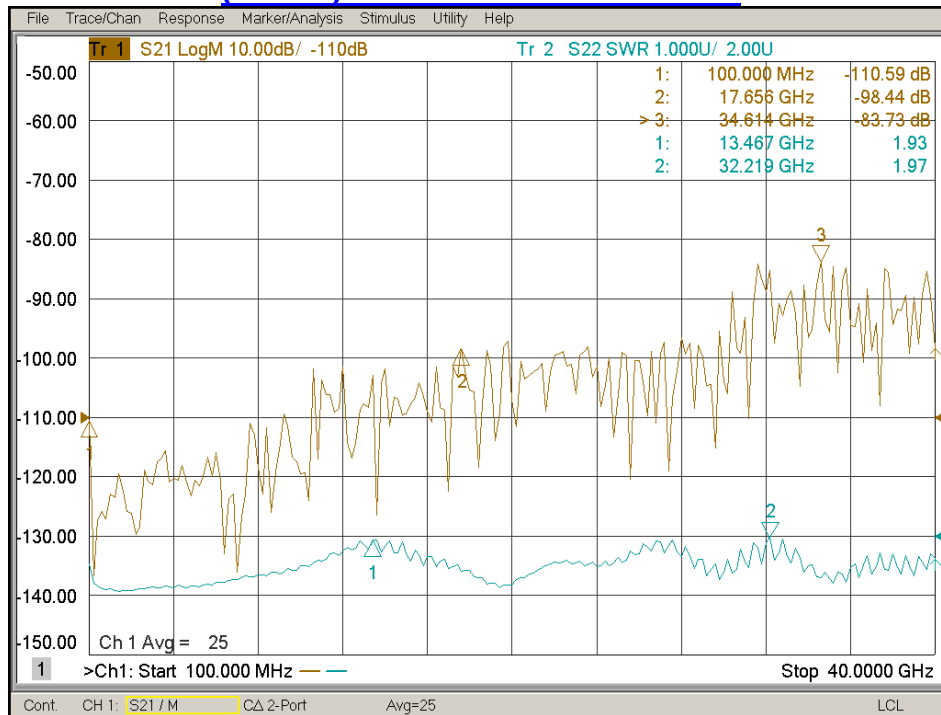


TYPICAL CHARACTERISTICS ON P16T-100M40G-100-T-I-292

(J17-J1) Insertion Loss and Return Loss



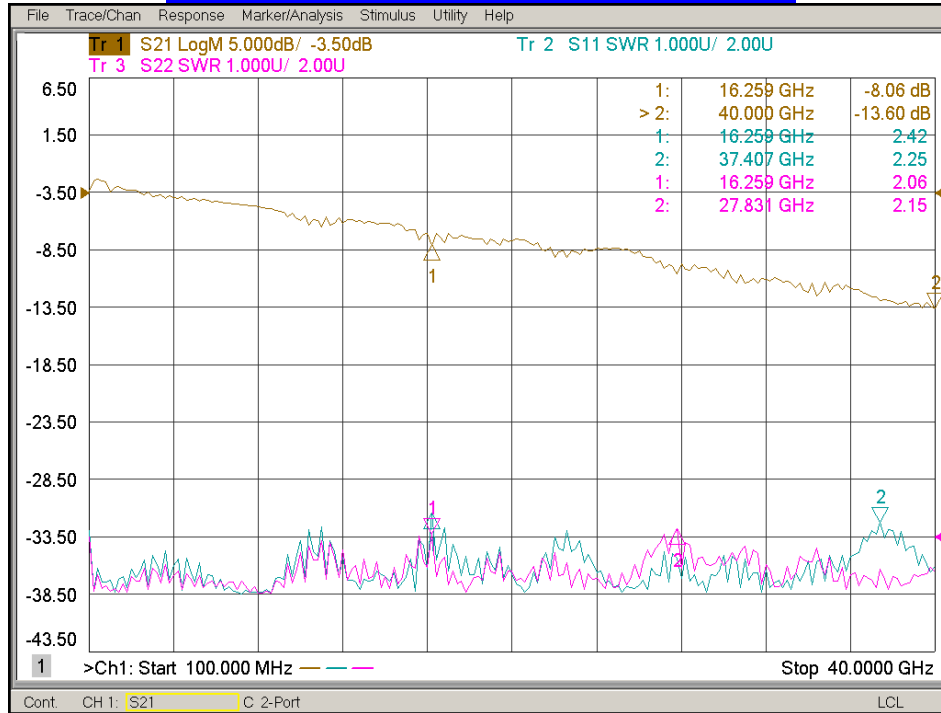
(J17-J1) Isolation and Termination



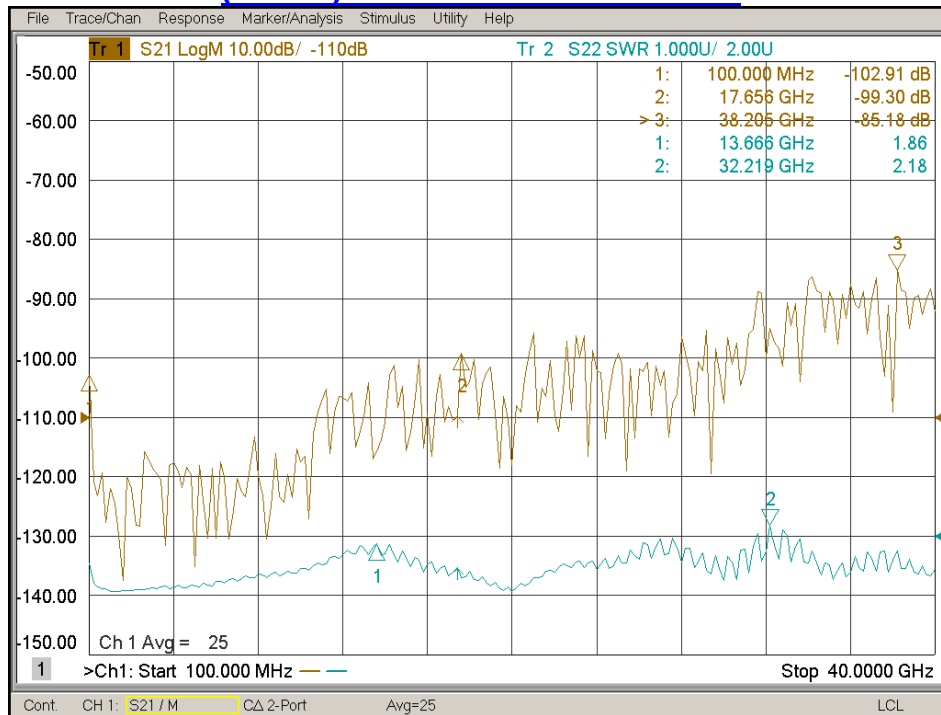


**TYPICAL CHARACTERISTICS
ON
P16T-100M40G-100-T-I-292**

(J17-J2) Insertion Loss and Return Loss



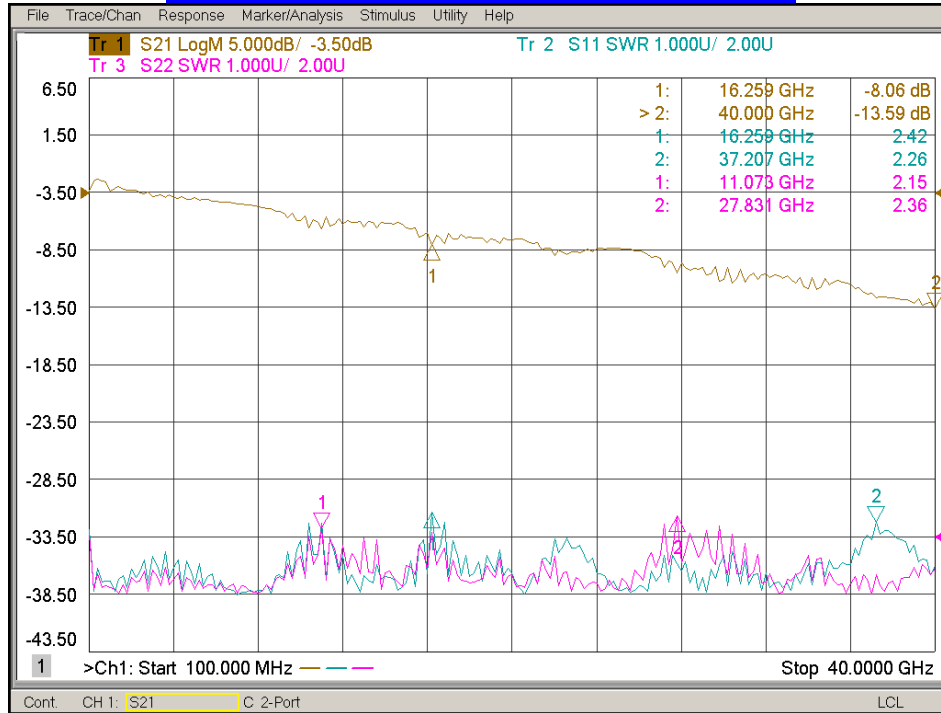
(J17-J2) Isolation and Termination



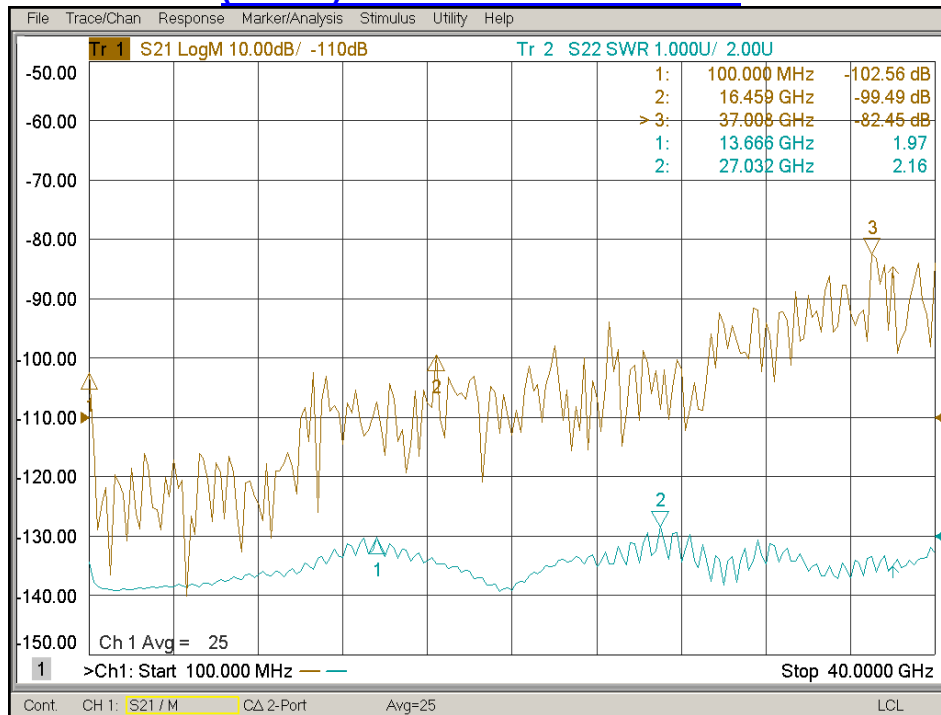


TYPICAL CHARACTERISTICS ON P16T-100M40G-100-T-I-292

(J17-J3) Insertion Loss and Return Loss



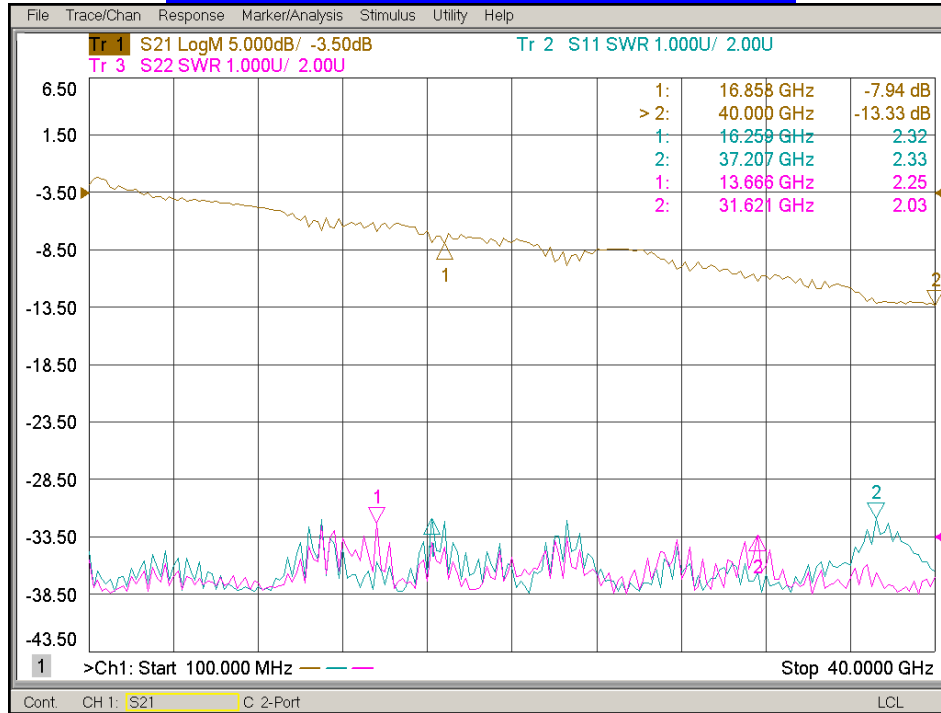
(J17-J3) Isolation and Termination



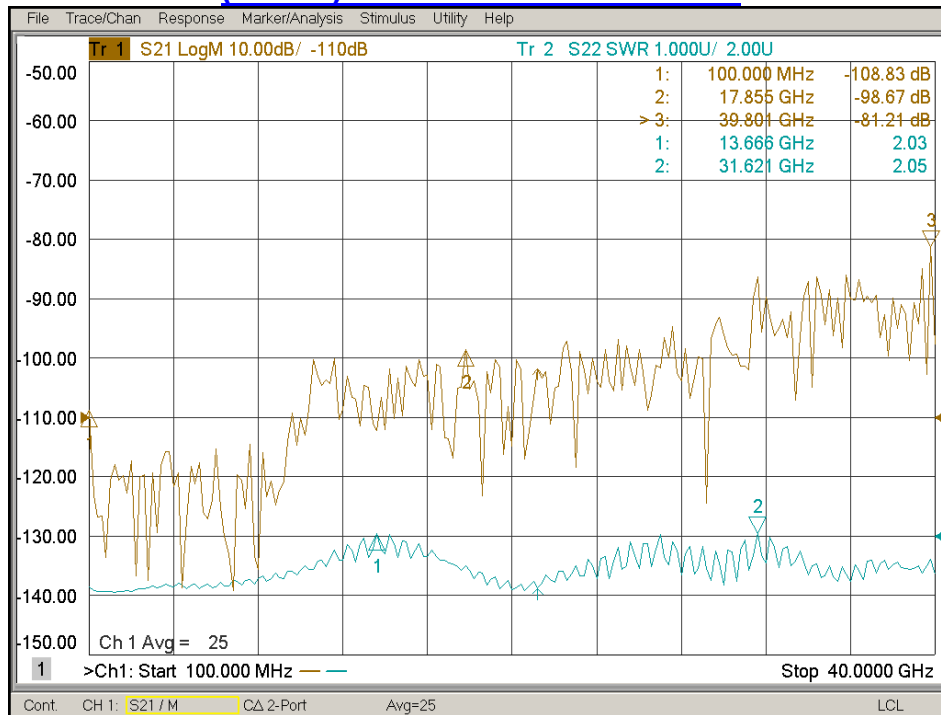


TYPICAL CHARACTERISTICS ON P16T-100M40G-100-T-I-292

(J17-J4) Insertion Loss and Return Loss



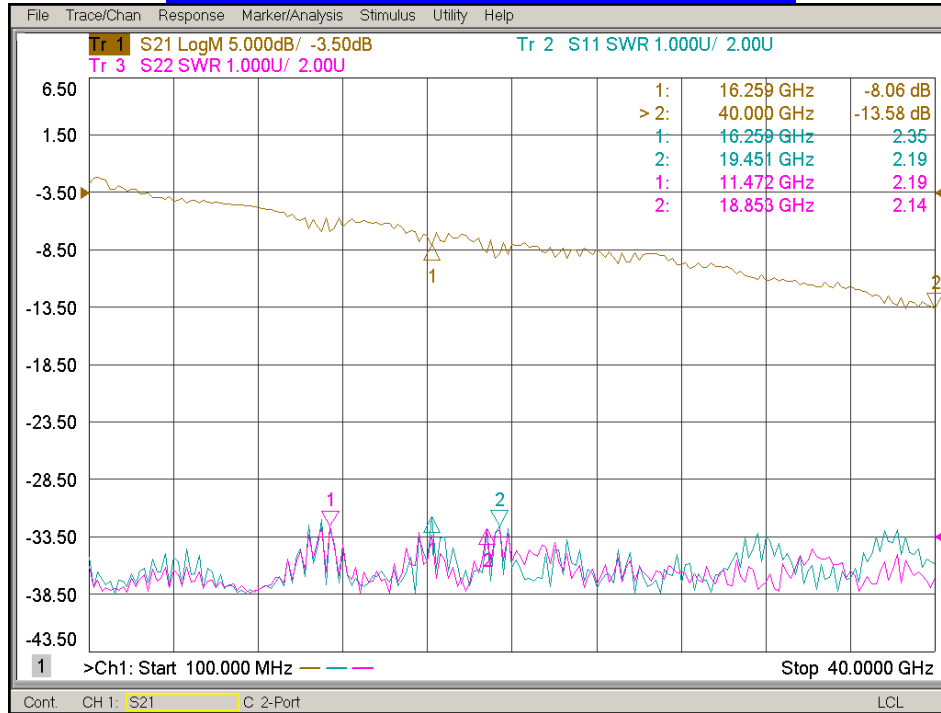
(J17-J4) Isolation and Termination



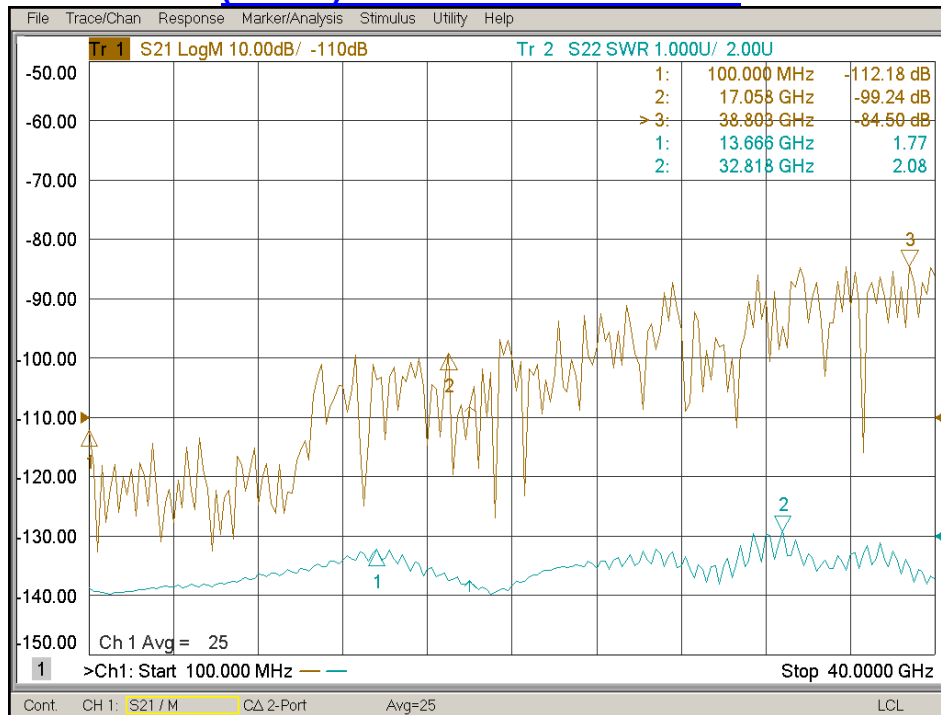


TYPICAL CHARACTERISTICS ON P16T-100M40G-100-T-I-292

(J17-J5) Insertion Loss and Return Loss



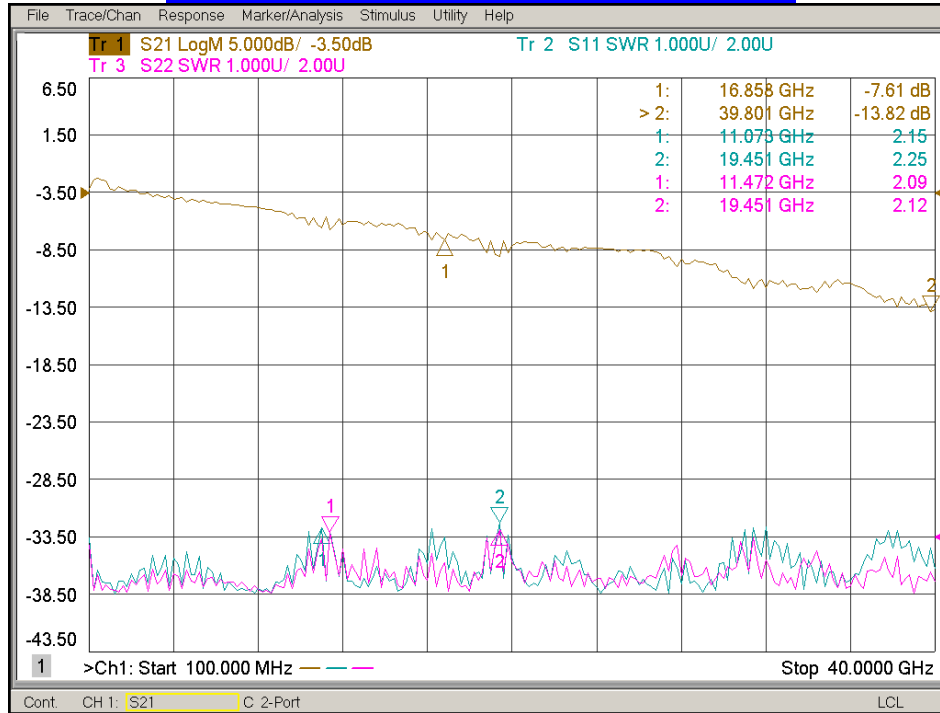
(J17-J5) Isolation and Termination



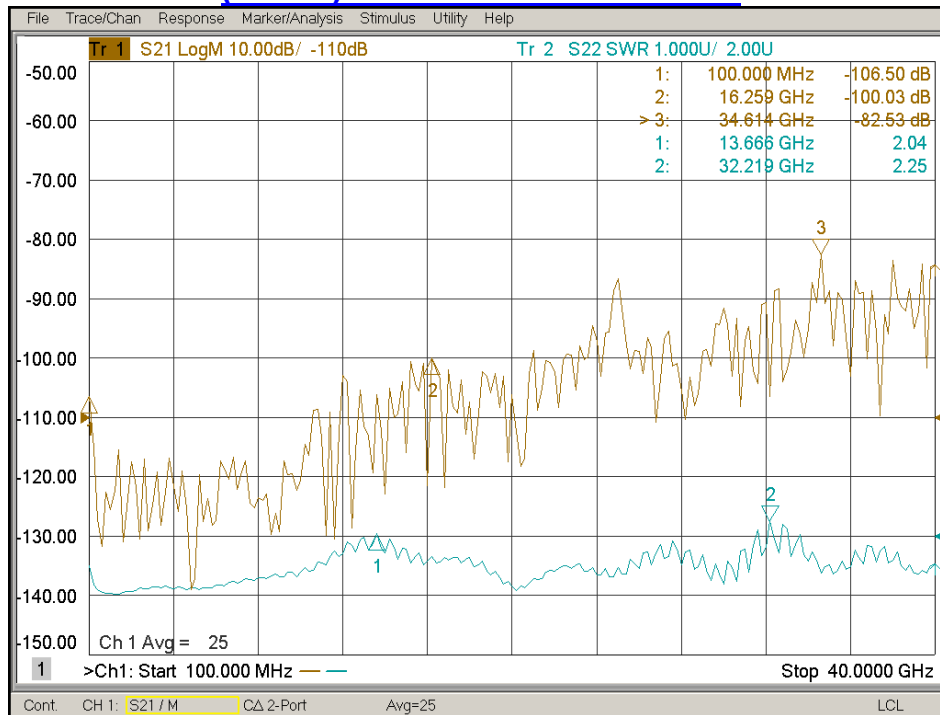


TYPICAL CHARACTERISTICS ON P16T-100M40G-100-T-I-292

(J17-J6) Insertion Loss and Return Loss



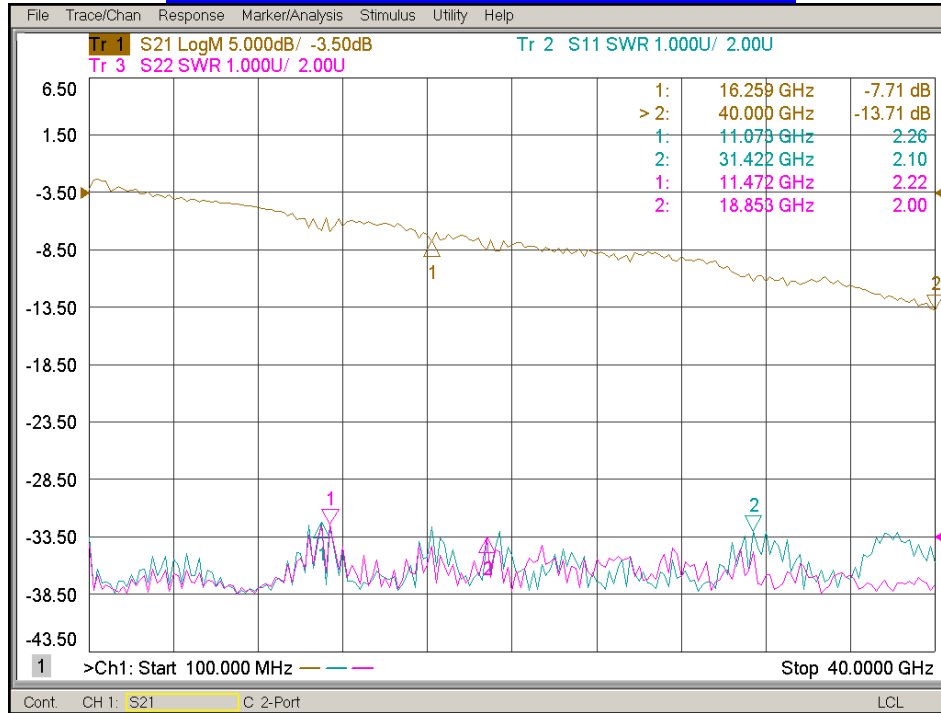
(J17-J6) Isolation and Termination



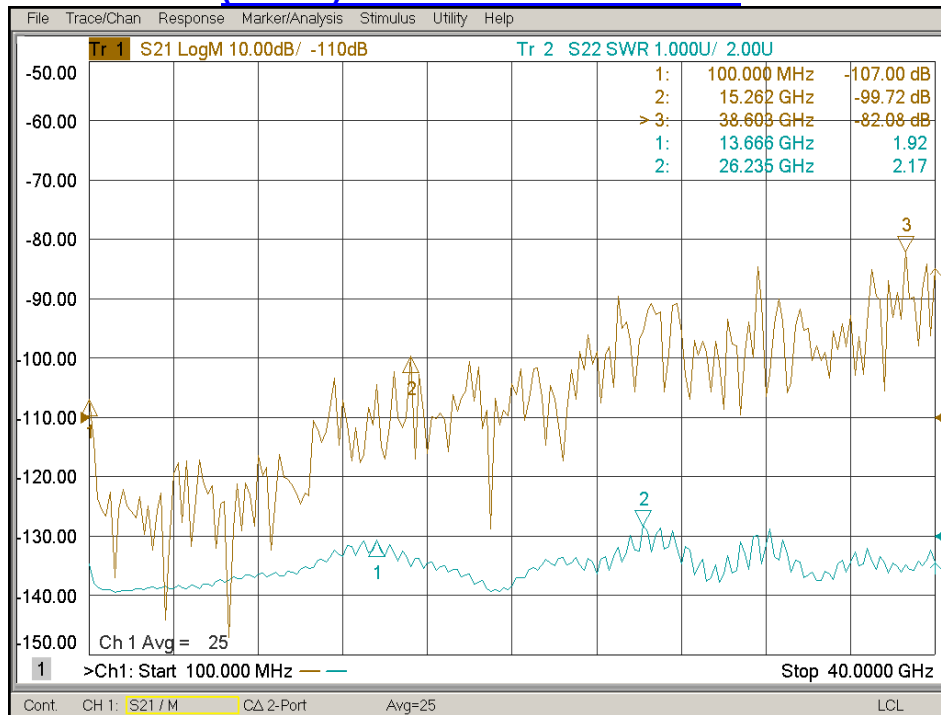


TYPICAL CHARACTERISTICS ON P16T-100M40G-100-T-I-292

(J17-J7) Insertion Loss and Return Loss



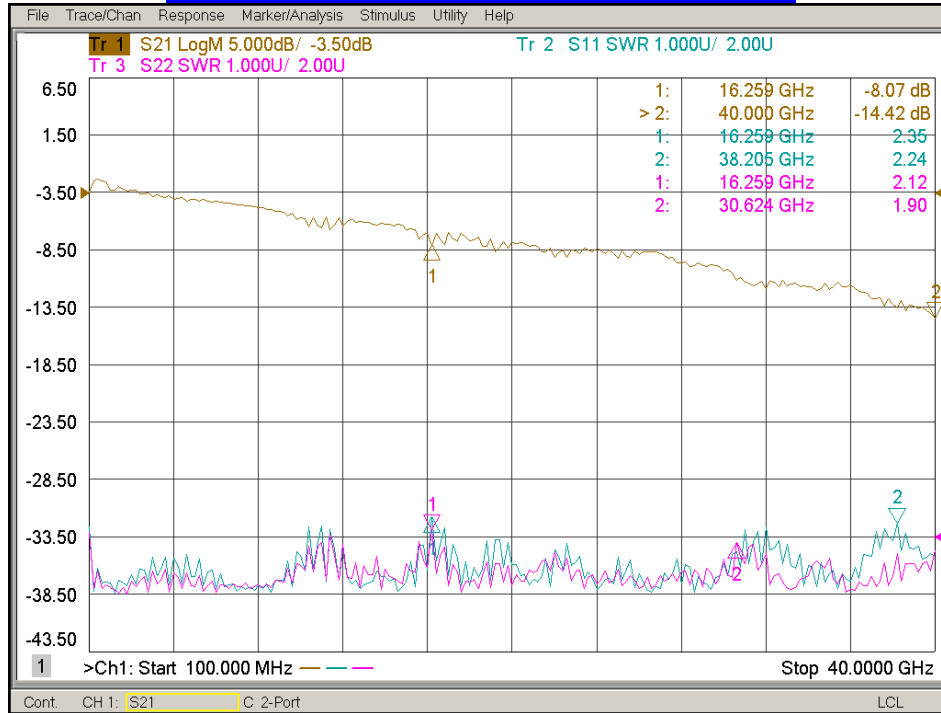
(J17-J7) Isolation and Termination



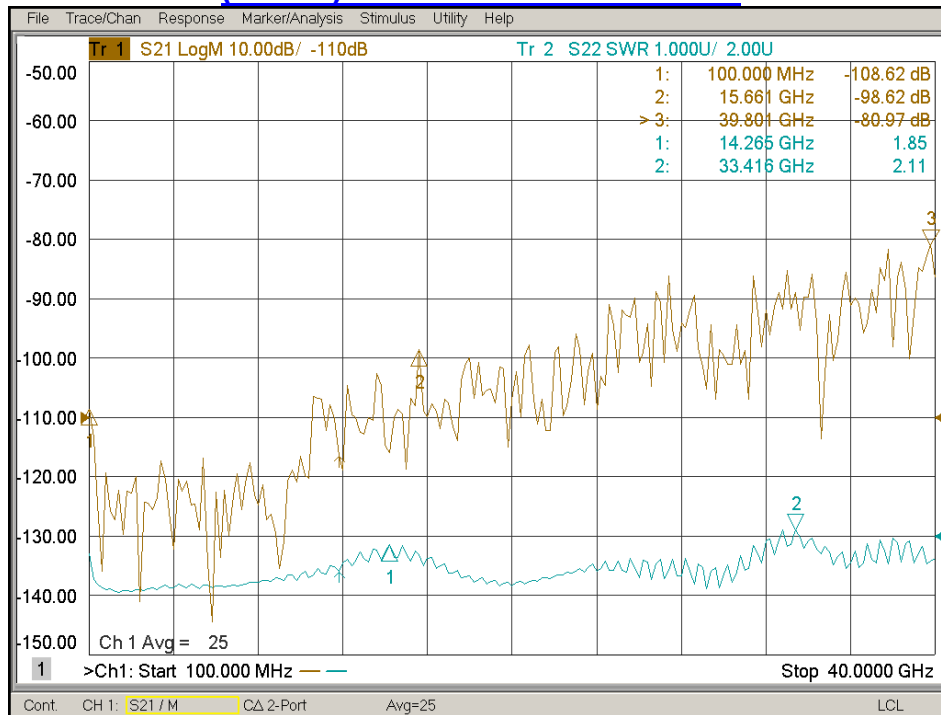


TYPICAL CHARACTERISTICS ON P16T-100M40G-100-T-I-292

(J17-J8) Insertion Loss and Return Loss



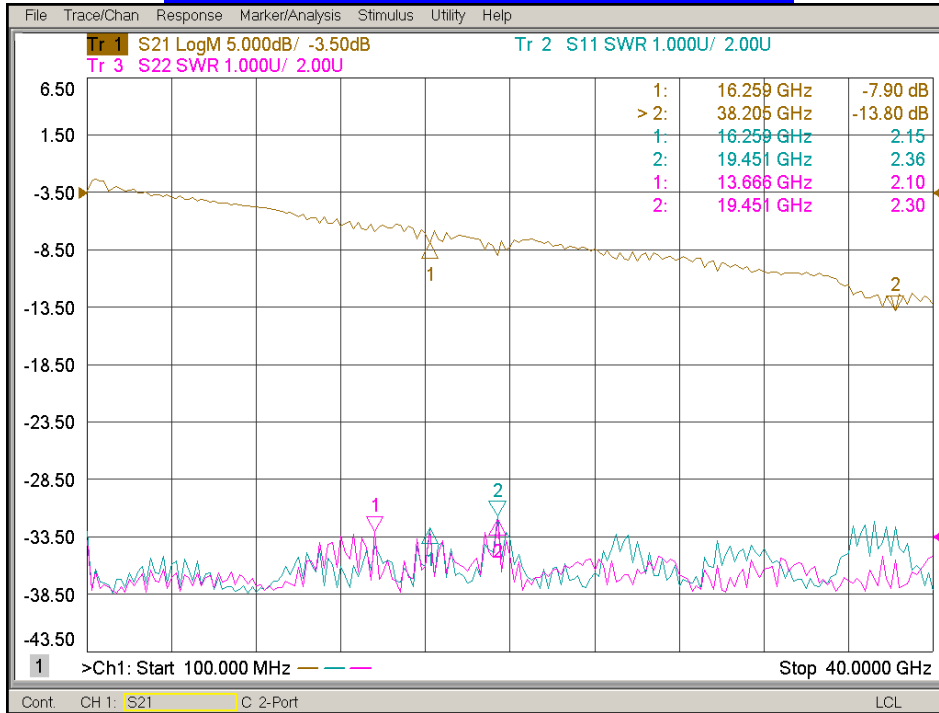
(J17-J8) Isolation and Termination



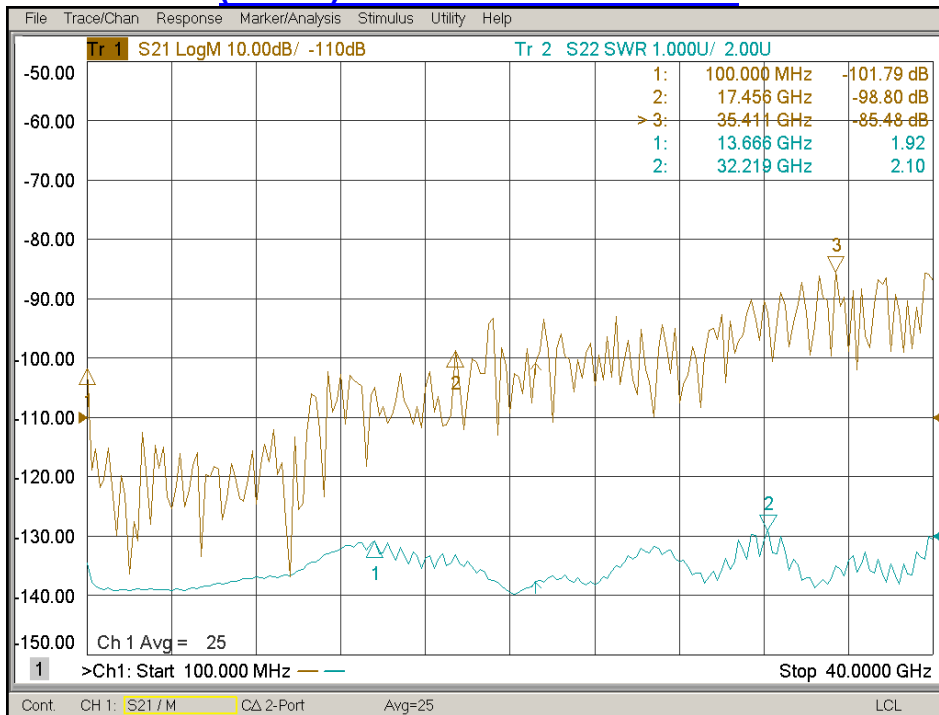


**TYPICAL CHARACTERISTICS
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(J17-J9) Insertion Loss and Return Loss



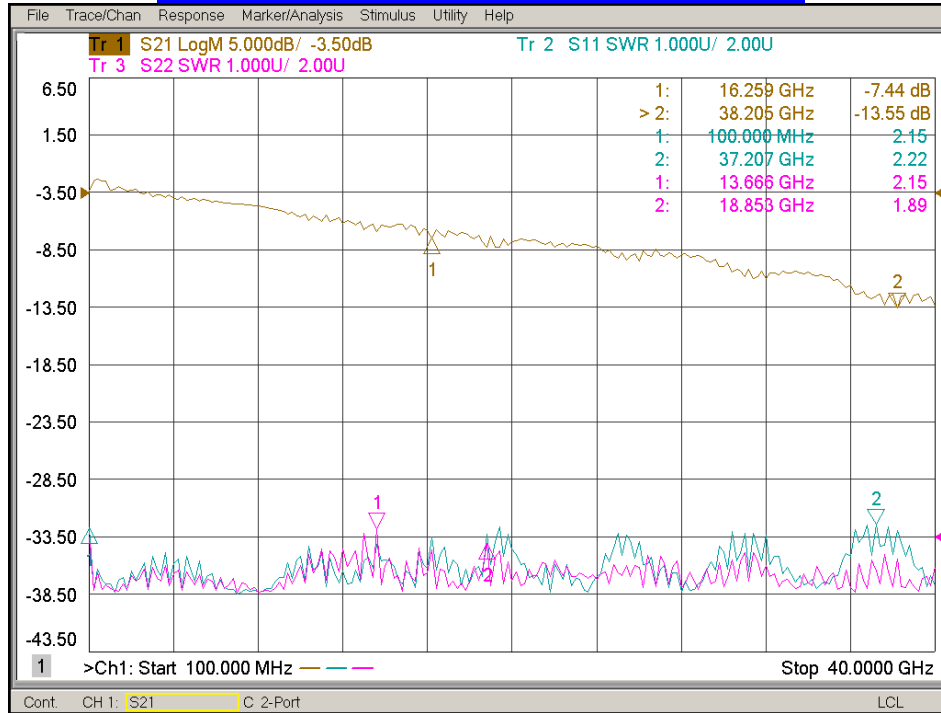
(J17-J9) Isolation and Termination



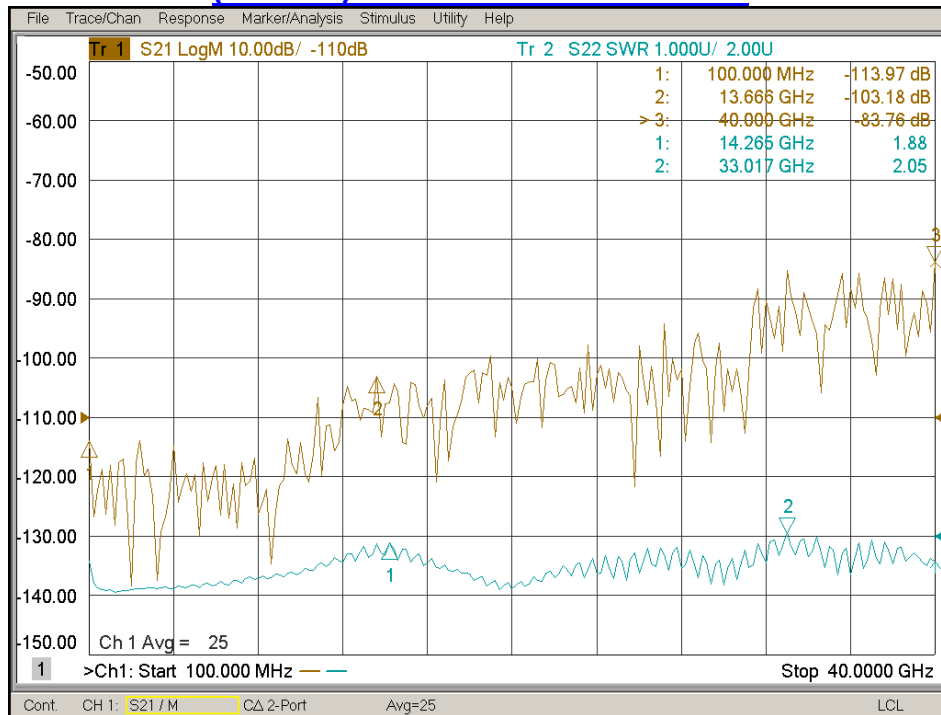


TYPICAL CHARACTERISTICS ON P16T-100M40G-100-T-I-292

(J17-J10) Insertion Loss and Return Loss



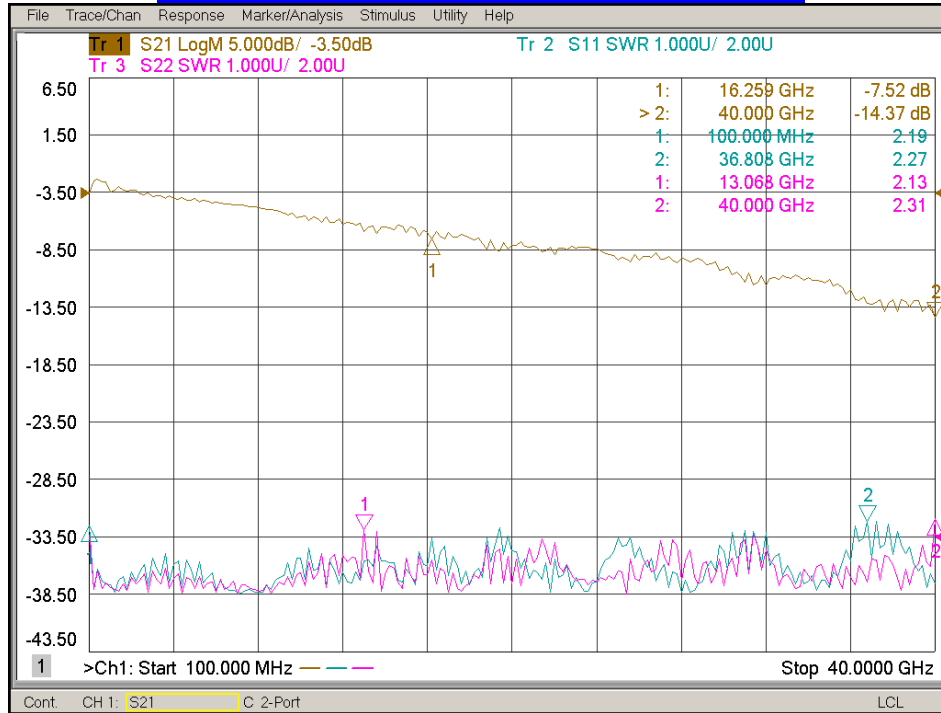
(J17-J10) Isolation and Termination



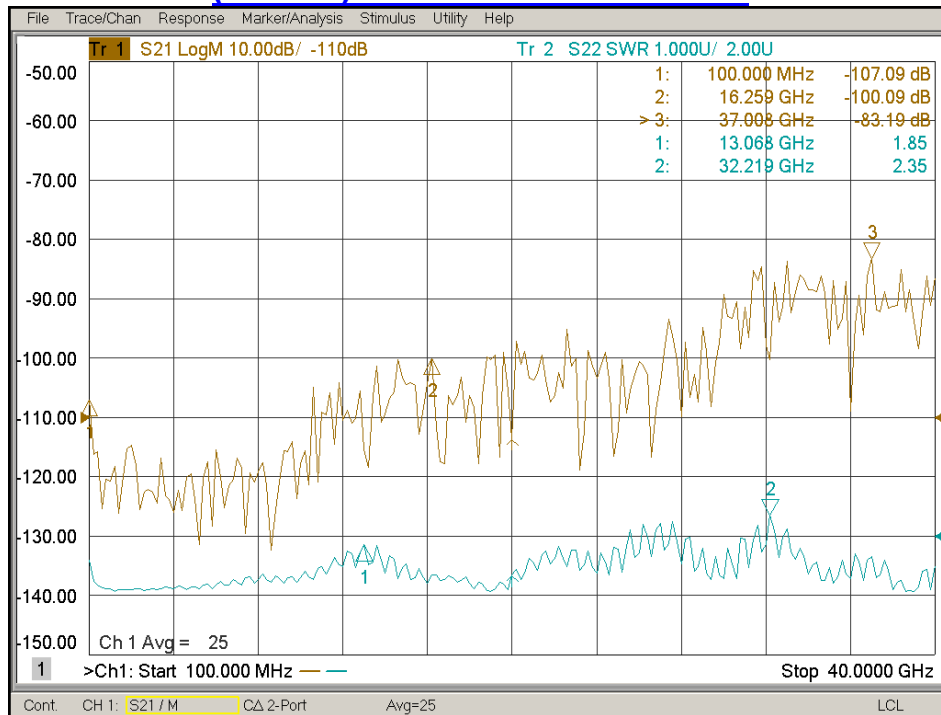


TYPICAL CHARACTERISTICS ON P16T-100M40G-100-T-I-292

(J17-J11) Insertion Loss and Return Loss



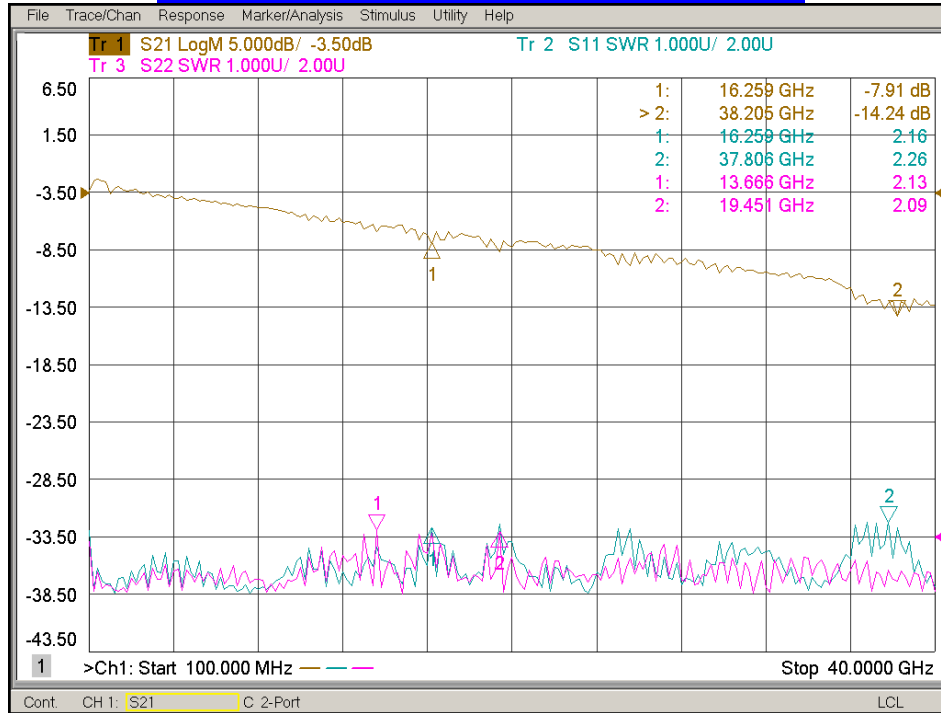
(J17-J11) Isolation and Termination



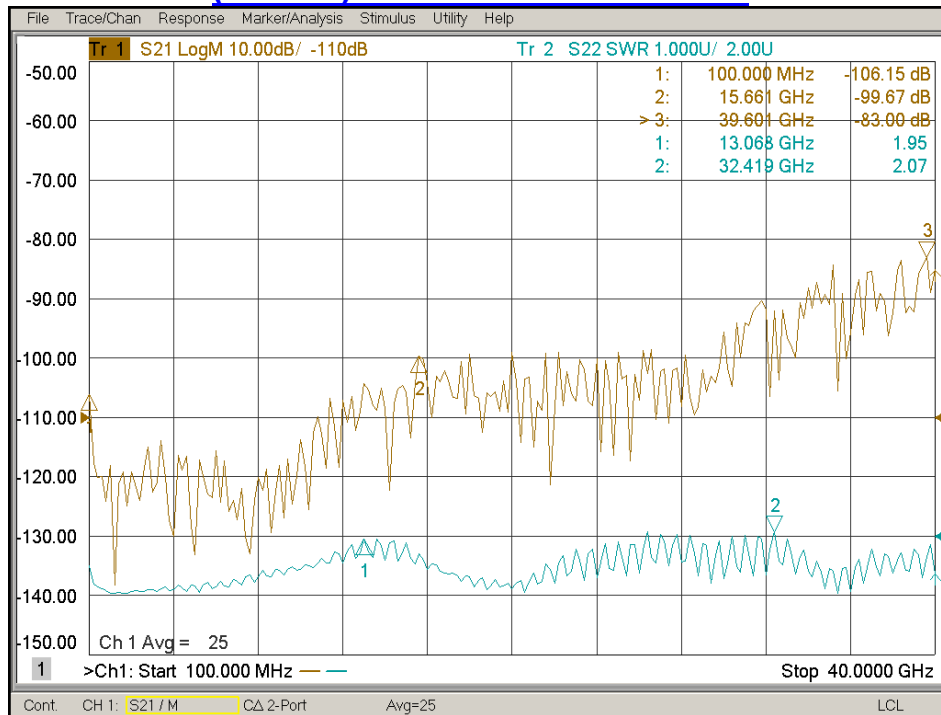


TYPICAL CHARACTERISTICS ON P16T-100M40G-100-T-I-292

(J17-J12) Insertion Loss and Return Loss



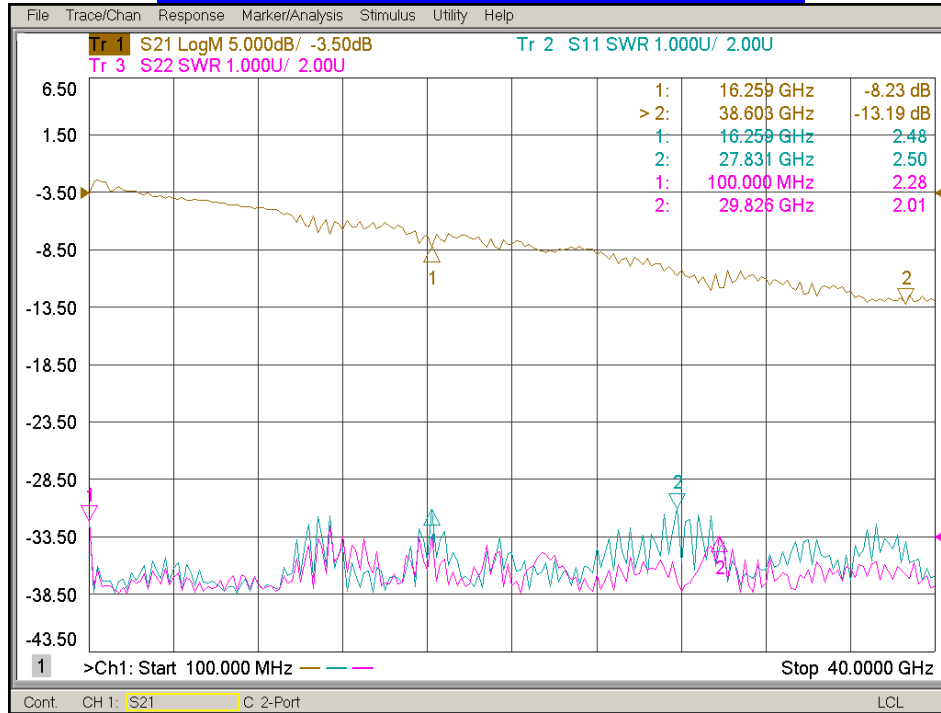
(J17-J12) Isolation and Termination



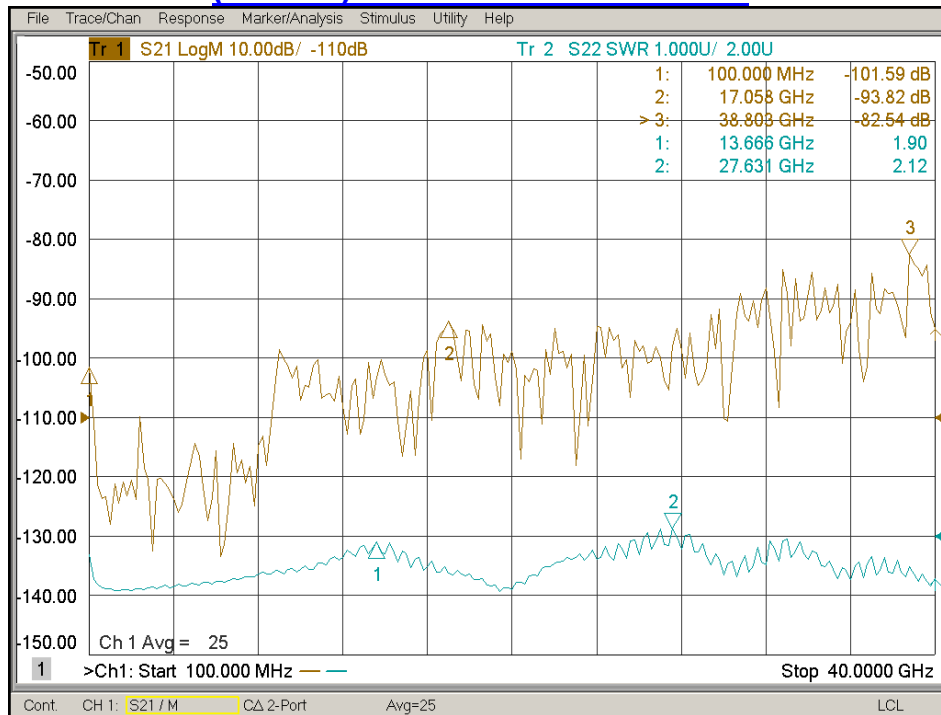


TYPICAL CHARACTERISTICS ON P16T-100M40G-100-T-I-292

(J17-J13) Insertion Loss and Return Loss



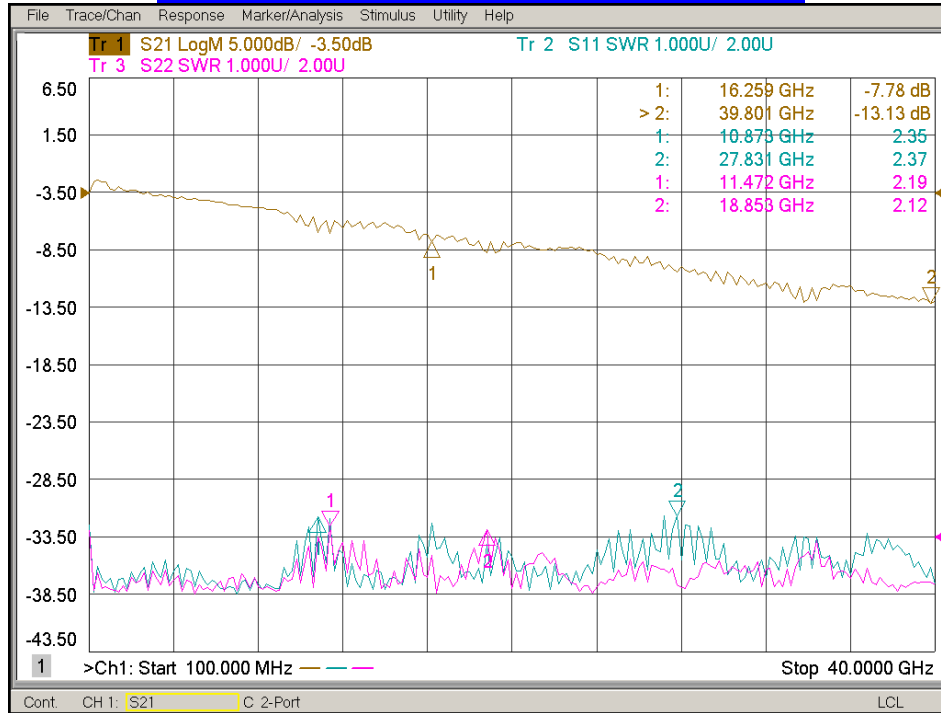
(J17-J13) Isolation and Termination



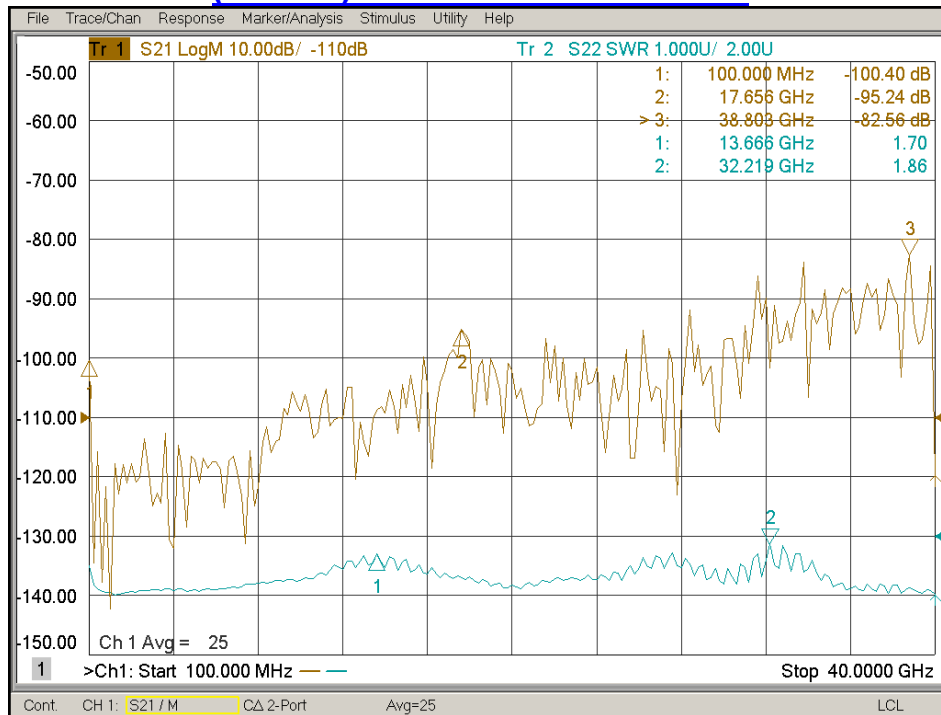


TYPICAL CHARACTERISTICS ON P16T-100M40G-100-T-I-292

(J17-J14) Insertion Loss and Return Loss



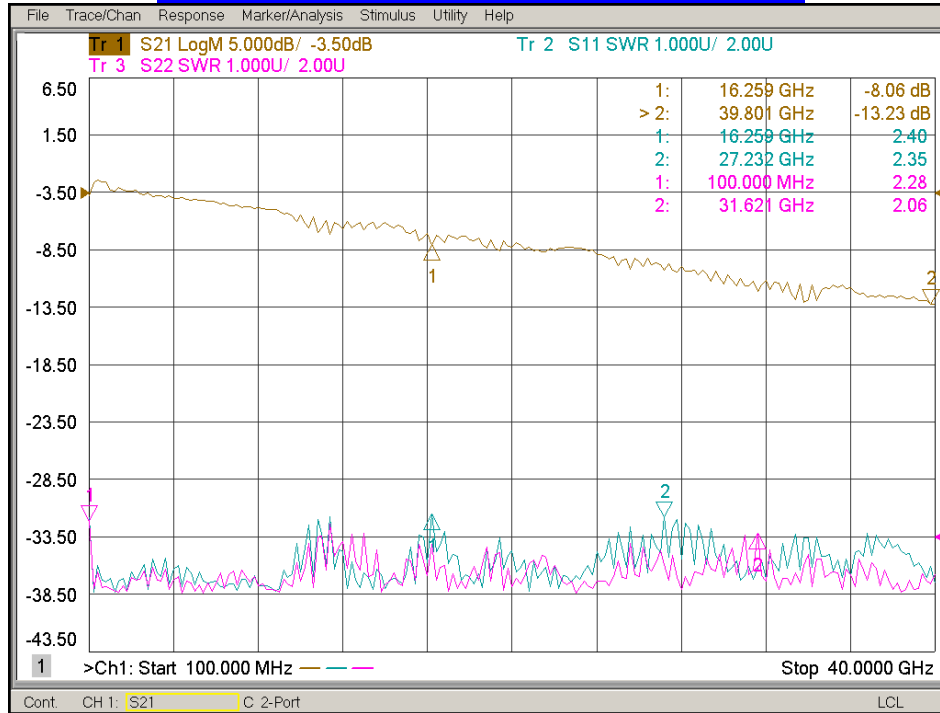
(J17-J14) Isolation and Termination



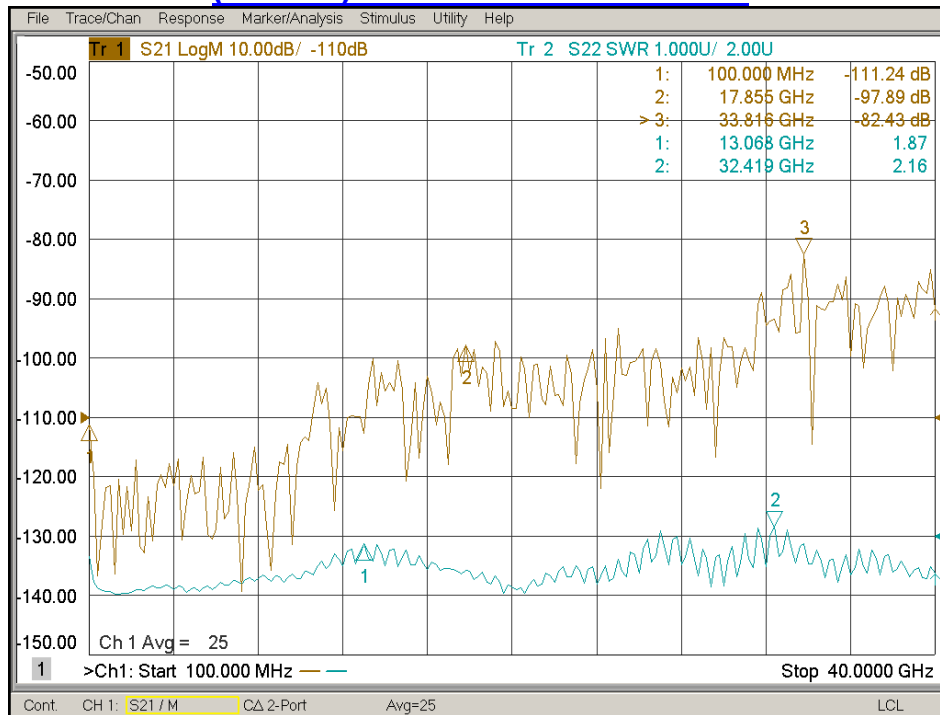


**TYPICAL CHARACTERISTICS
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P16T-100M40G-100-T-I-292**

(J17-J15) Insertion Loss and Return Loss



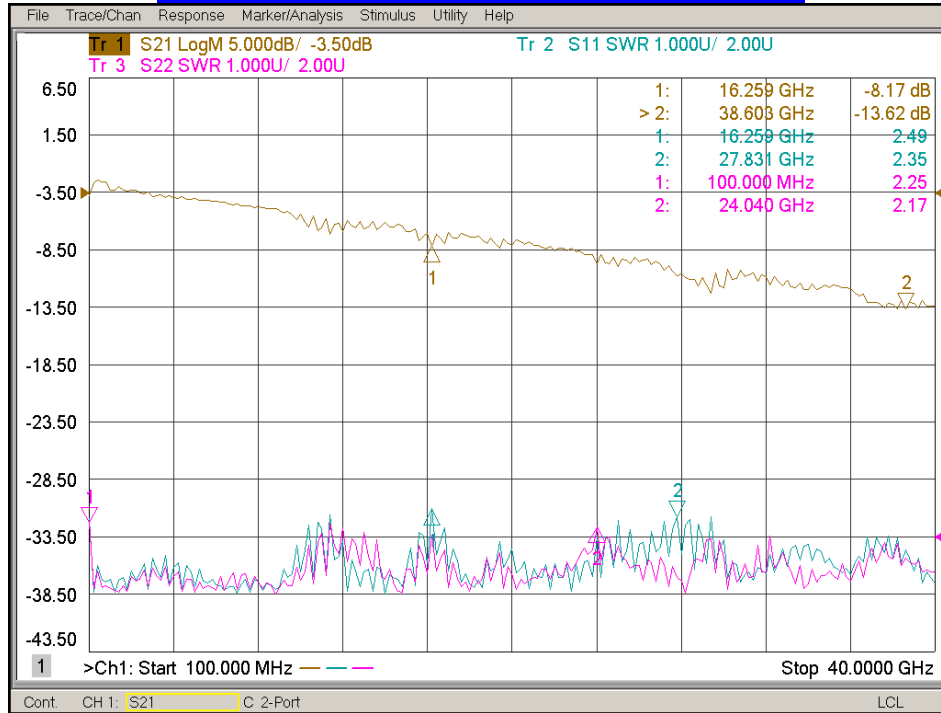
(J17-J15) Isolation and Termination



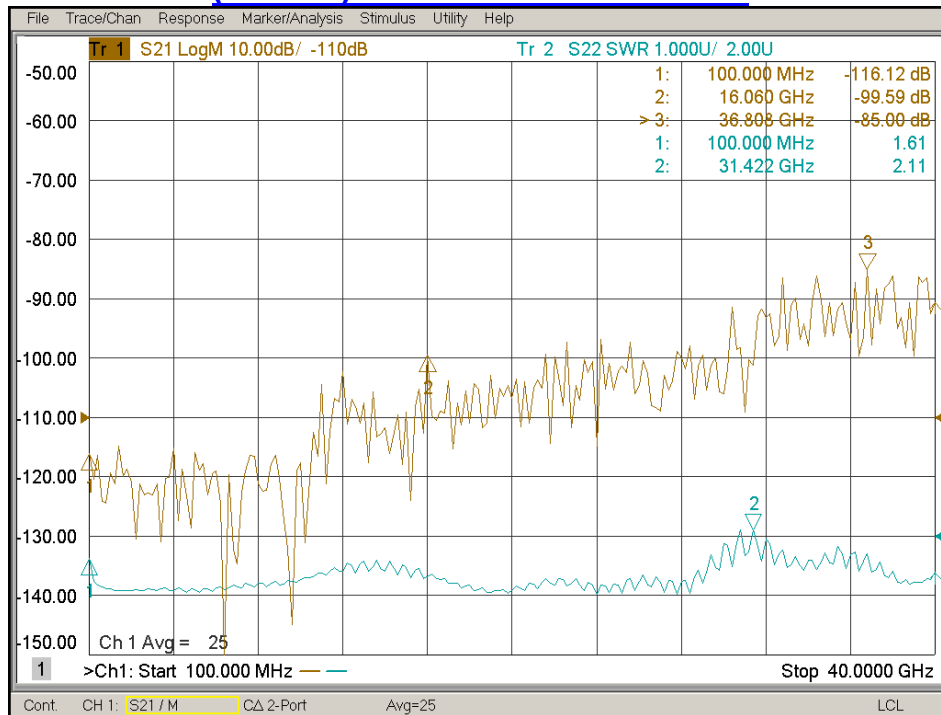


TYPICAL CHARACTERISTICS ON P16T-100M40G-100-T-I-292

(J17-J16) Insertion Loss and Return Loss



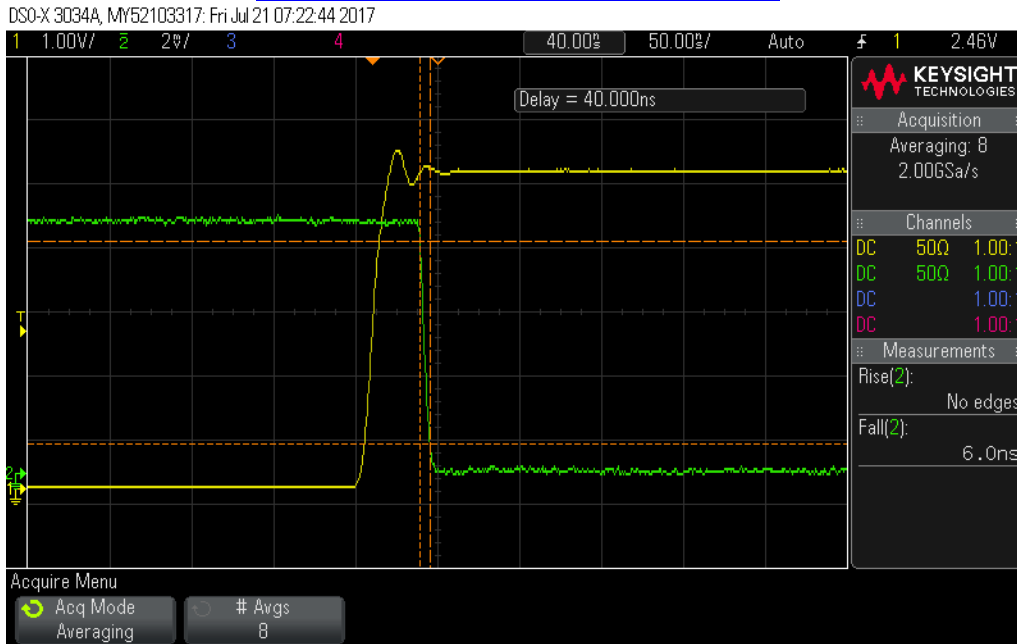
(J17-J16) Isolation and Termination



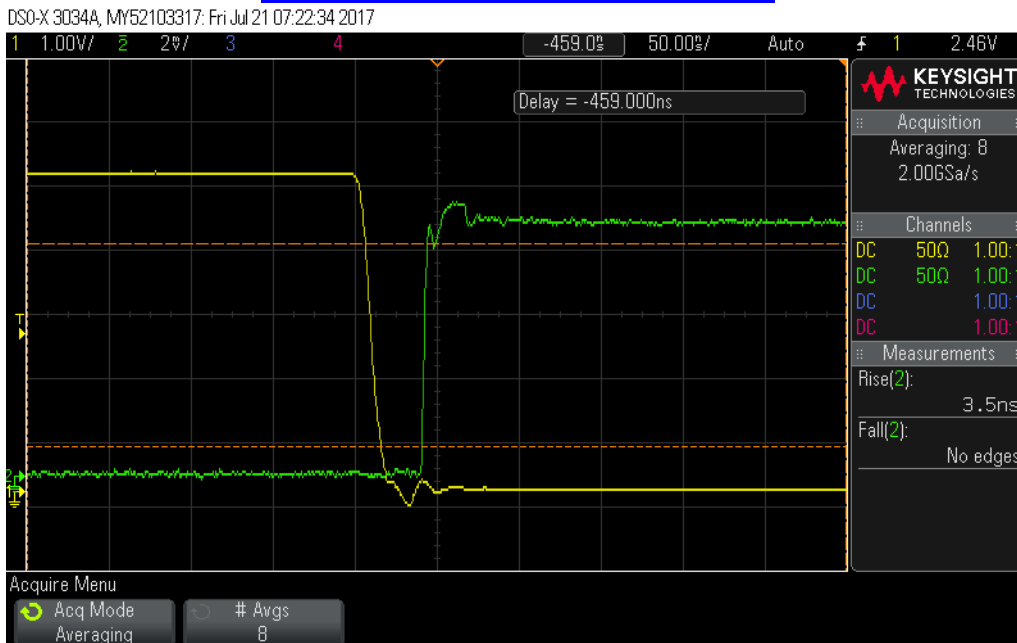


**TYPICAL CHARACTERISTICS
ON
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**Switching Speed Characteristics
OFF Delay and Fall Time – 50 ns per Div.**



ON Delay and Rise Time – 50 ns per Div.

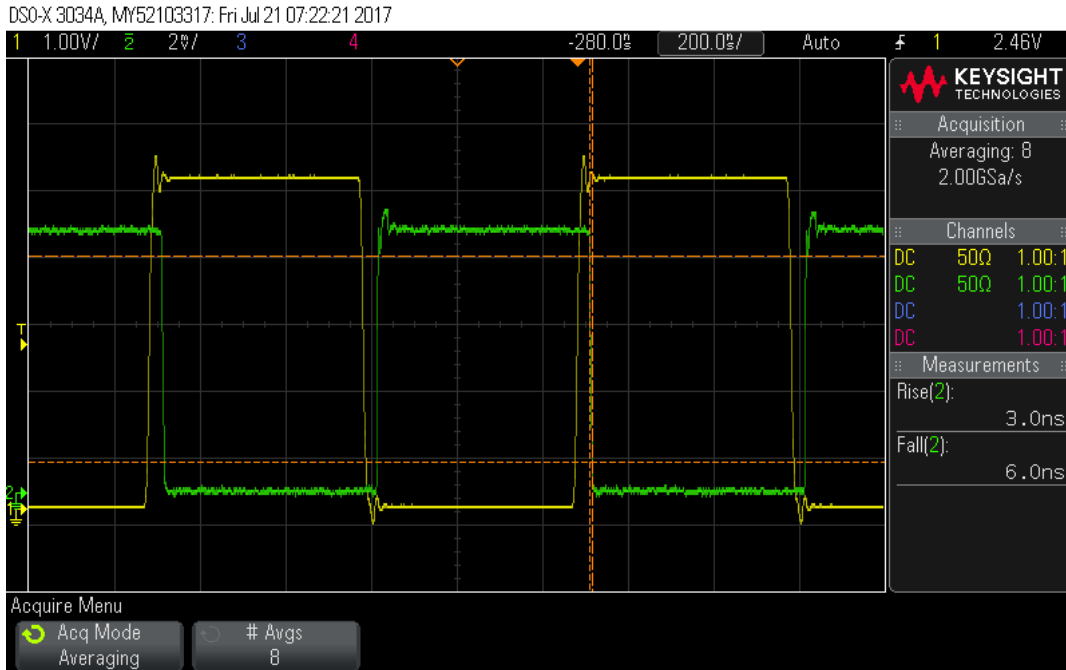


GREEN TRACE: RF
YELLOW TRACE: TTL



TYPICAL CHARACTERISTICS ON P16T-100M40G-100-T-I-292

FULL PULSE – 200 ns per Div.



VIDEO TRANSIENTS – 100 ns per Div.



GREEN TRACE: RF
YELLOW TRACE: TTL