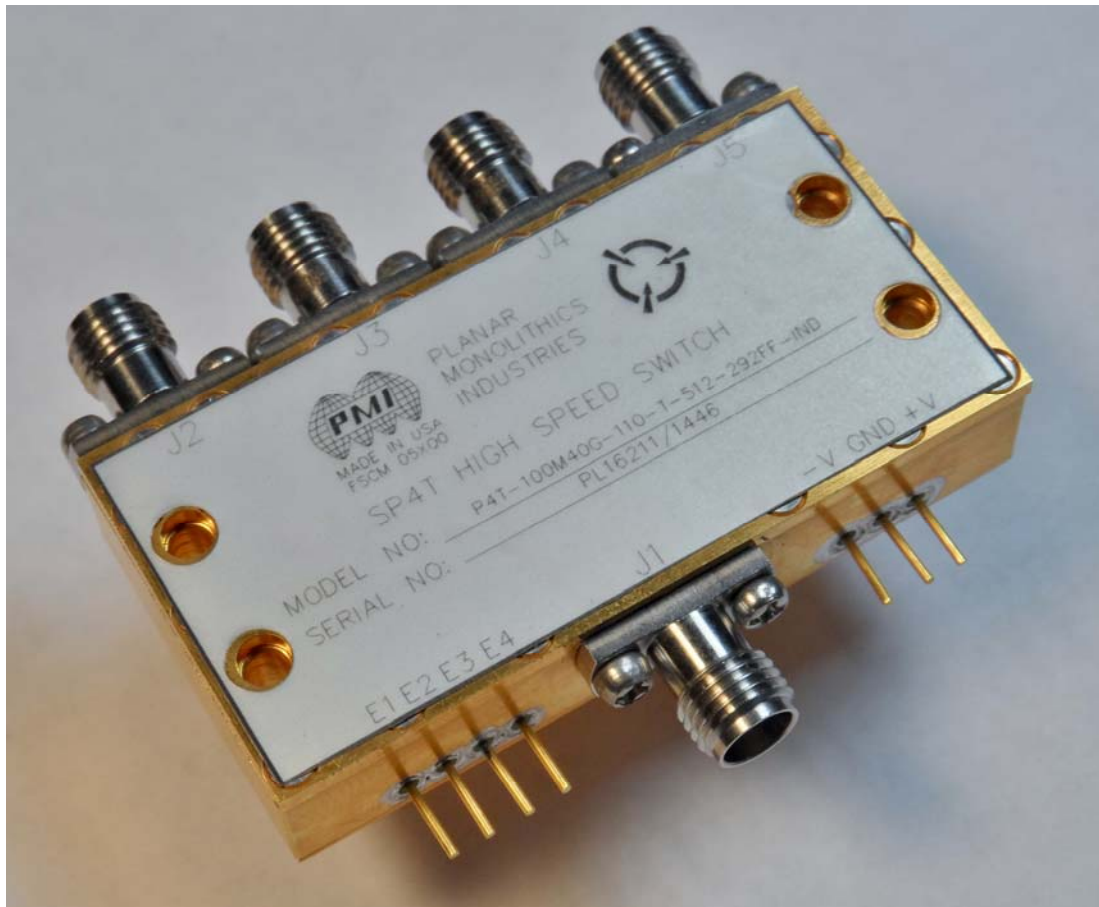




**SUMMARY TEST DATA
ON
P4T-100M40G-110-T-512-292FF-IND**

**PMI MODEL P4T-100M40G-110-T-512-292FF-IND IS AN ABSORPTIVE,
SINGLE POLE, FOUR THROW PIN DIODE SWITCH THAT OPERATES OVER
THE 0.1 GHz TO 40 GHz FREQUENCY RANGE. THIS MODEL
INCORPORATES A TTL COMPATIBLE DRIVER FOR EASY SYSTEM
INTEGRATION.**



November 25, 2014

Designed By: PMI Engineering

Tested & Reported By:
Lee McGraw
Sebastian Palacio

7311-F Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731
Email: sales@pmi-rf.com



SUMMARY TEST DATA ON P4T-100M40G-110-T-512-292FF-IND

DESCRIPTION

PMI MODEL P4T-100M40G-110-T-512-292FF-IND IS AN ABSORPTIVE, SINGLE POLE, FOUR THROW PIN DIODE SWITCH THAT OPERATES OVER THE 0.1 GHz TO 40 GHz FREQUENCY RANGE. THIS MODEL INCORPORATES A TTL COMPATIBLE DRIVER FOR EASY SYSTEM INTEGRATION.

SPECIFICATIONS

- FREQUENCY RANGE: 0.1 TO 40 GHz
- ISOLATION: 110dB Typ., 100dB Min. (0.3 to 18 GHz)
100dB Typ., 90dB Min. (18 to 26.5 GHz)
90dB Typ., 80dB Min. (0.1 to 0.3 & 26.5 to 40 GHz)
- INSERTION LOSS: 5.25dB Typ., 6dB Max. (0.3 to 18 GHz)
6.25dB Typ., 8dB Max. (0.1 to 0.3 & 18 to 26.5 GHz)
7.25dB Typ., 10dB Max. (26.5 to 40 GHz)
- VSWR: 2.0:1 Typ., 2.75:1 Max
- OPERATING INPUT POWER: +20 dbm CW MAX
- RF SWITCHING SPEED: 100ns Max
- DC VOLTAGE: +5V @ 200 mA MAX
-12V @ 100 mA MAX
- CONTROL SIGNAL: 4 LINE TTL "0" = INSERTION LOSS & "1" = ISOLATION
- CONNECTORS IN/OUT: 2.92mm FEMALE CONNECTORS
- CONTROL: SOLDER PINS
- SIZE: (L)2.0" X (W)1.0" X (H)0.4"
- FINISH: GOLD PLATED

ENVIRONMENTAL RATINGS

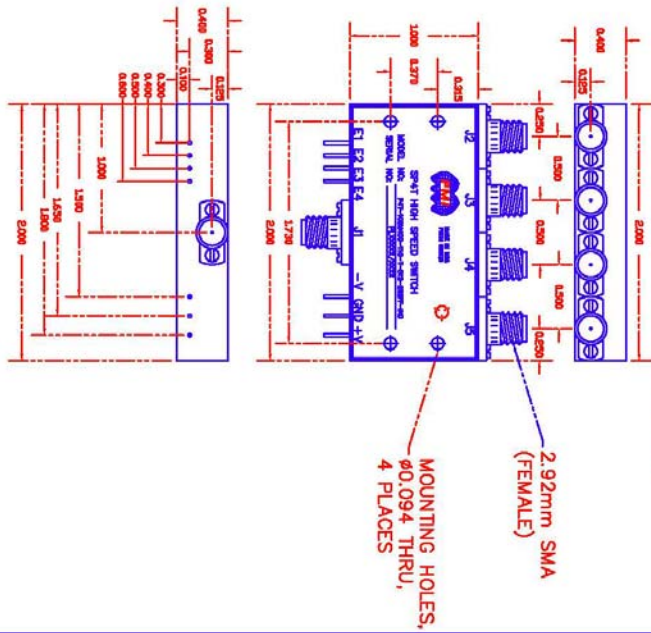
- TEMPERATURE: -40°C TO +85°C (OPERATING)
-55°C TO +125°C (STORAGE)
- HUMIDITY: MIL-STD-202F, METHOD 1039 COND. B
- SHOCK: MIL-STD-202F, METHOD 2138 COND. B
- VIBRATION: MIL-STD-202F, METHOD 2040 COND. B
- ALTITUDE: MIL-STD-202F, METHOD 105C COND. B
- SALT FOG: MIL-STD-202F, METHOD 107D COND. A
- FUNGUS: MIL-STD-810C, METHOD 508.2
- TEMPERATURE CYCLES: MIL-STD-202F, METHOD 107

ALL DIMENSIONS ARE IN INCHES

TOL. ENANCES:
X.XX ±0.020
X.XXX ±0.010

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	ORIGINAL RELEASE	04/18/14	
	2	SPEC. UPDATES	4/19/14	

MECHANICAL OUTLINE



PMI CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.
7311-F GROVE ROAD
FREDERICK, MARYLAND 21704 USA
TEL: 301-662-5019 FAX: 301-662-1731
WEBSITE: www.pmi-rf.com
E-MAIL: sales@pmi-rf.com
ISO 9001 CERTIFIED



APPROVALS	DATE	TITLE	REV.
DRWEN <i>YJR</i>	04/14/14	PRODUCT FEATURE	1
DESIGNED		P4T-100M40G-110-T-512-292FF-IND	2
ISSUED		SCALE N: S	SHEET 1 OF 1



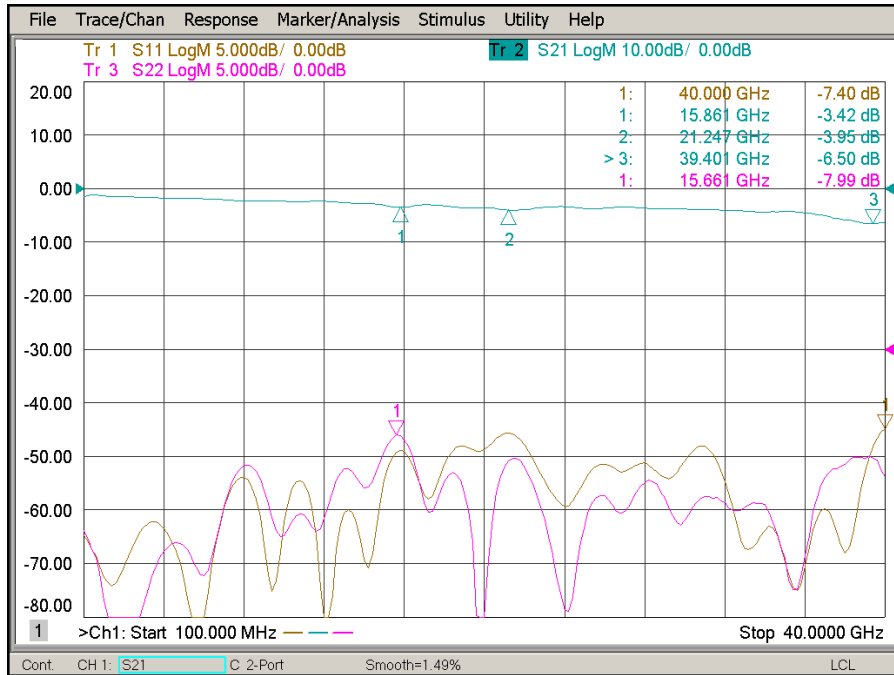
**SUMMARY TEST DATA
ON
P4T-100M40G-110-T-512-292FF-IND**

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	0.1 to 40GHz	0.1 to 40GHz See Plots	
2	Isolation:	110dB Typ., 100dB Min (0.3 to 18 GHz) 100dB Typ., 90dB Min (18 to 26.5 GHz) 90dB Typ., 80dB Min (0.1 to 0.3 & 26.5 to 40 GHz)	101.31dB See Plots 101.65dB See Plots 92.57dB See Plots	
3	Insertion Loss:	5.25dB Typ., 6dB Max (0.1 to 18 GHz) 6.25dB Typ., 8dB Max (0.1 to 0.3 & 18 to 26.5 GHz) 7.25dB Typ., 10dB Max (26.5 to 40 GHz)	3.55dB See Plots 4.16dB See Plots 6.77dB See Plots	
4	VSWR:	2.0:1 Typ. 2.75:1 Max	2.74:1 See Plots	
5	Input Power:	+20dBm CW	+20dBm CW	
6	Switching Speed:	100ns Max	20ns See Plots	
7	Video Transients:	Not Specified	1V Peak to Peak Typ. See Plots	
8	Control TTL	4 Line Independent Logic "0" = Insertion Loss Logic "1" = Isolation	Pass	
9	Power Supply:	+5V @ 200mA Max -12V @ 100mA Max	105mA 100mA	

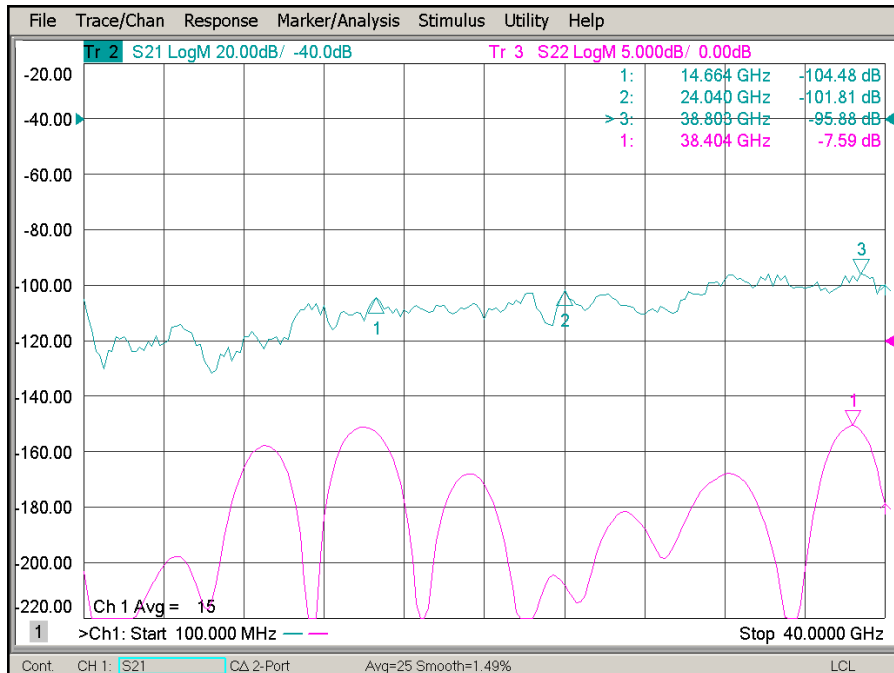


**SUMMARY TEST DATA
ON
P4T-100M40G-110-T-512-292FF-IND**

Insertion Loss and Return Loss



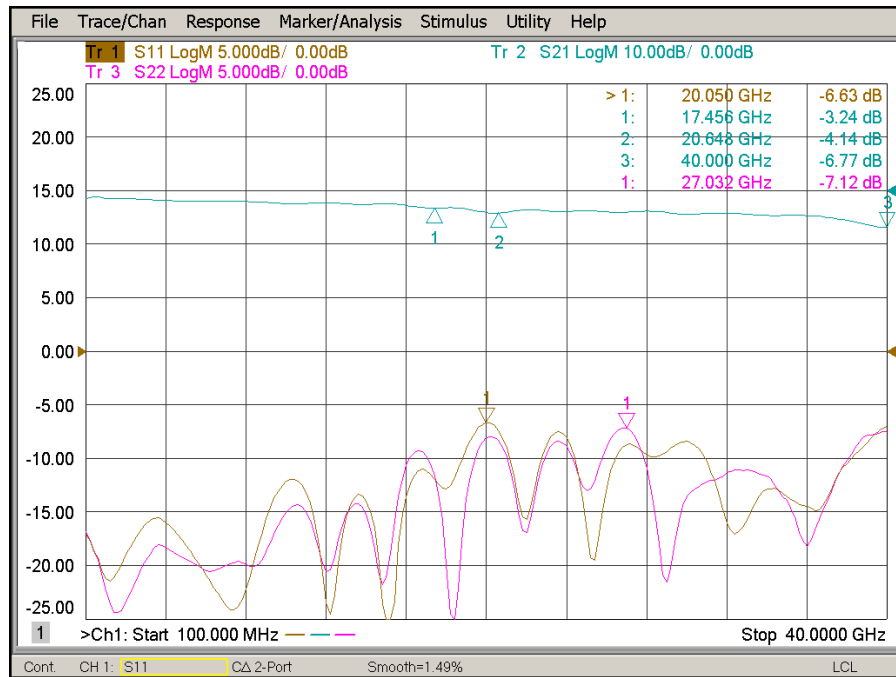
Termination Isolation and Return Loss



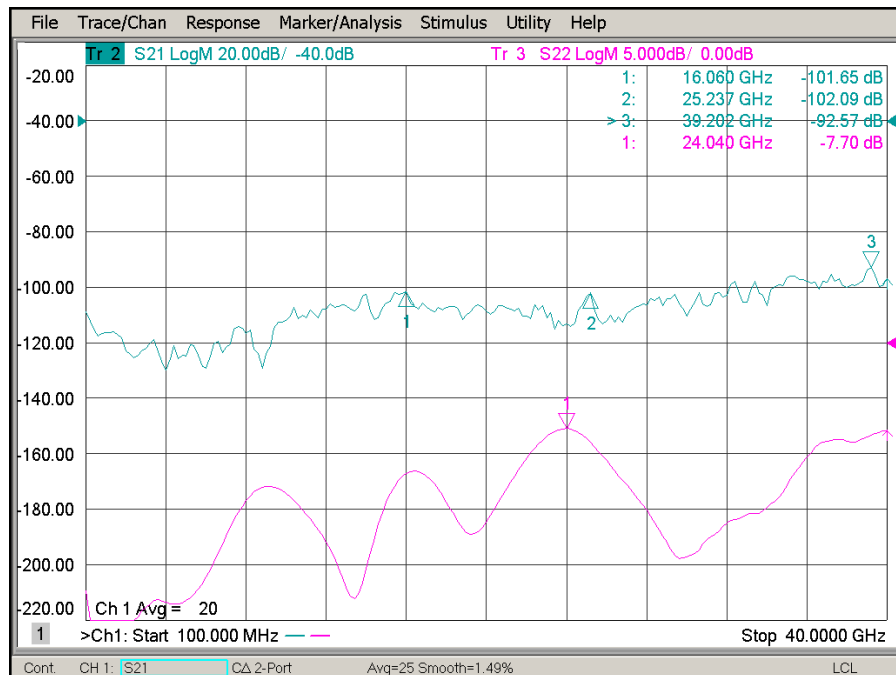


**SUMMARY TEST DATA
ON
P4T-100M40G-110-T-512-292FF-IND**

Insertion Loss and Return Loss



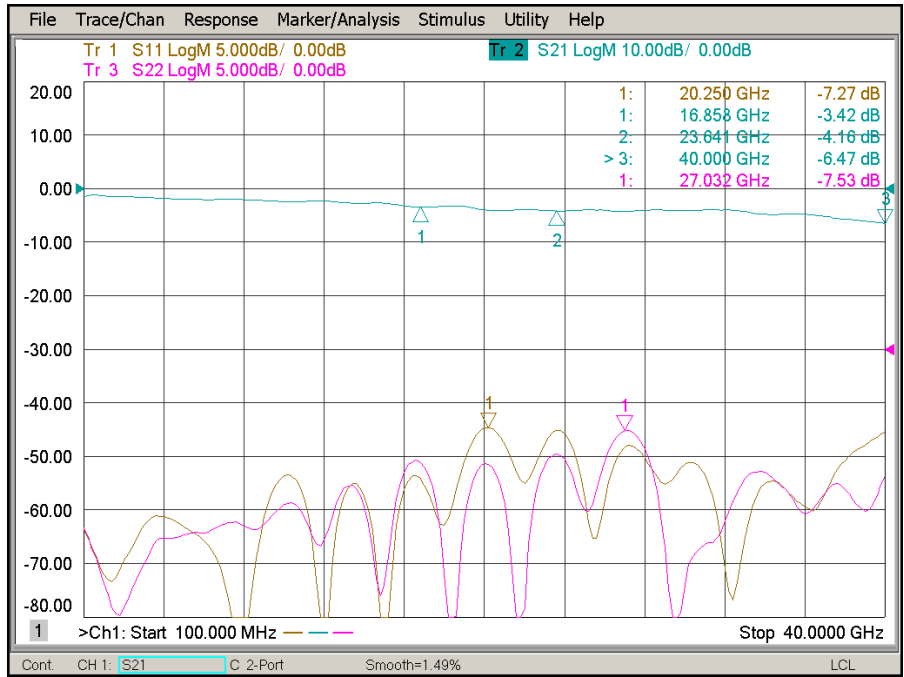
Termination Isolation and Return Loss



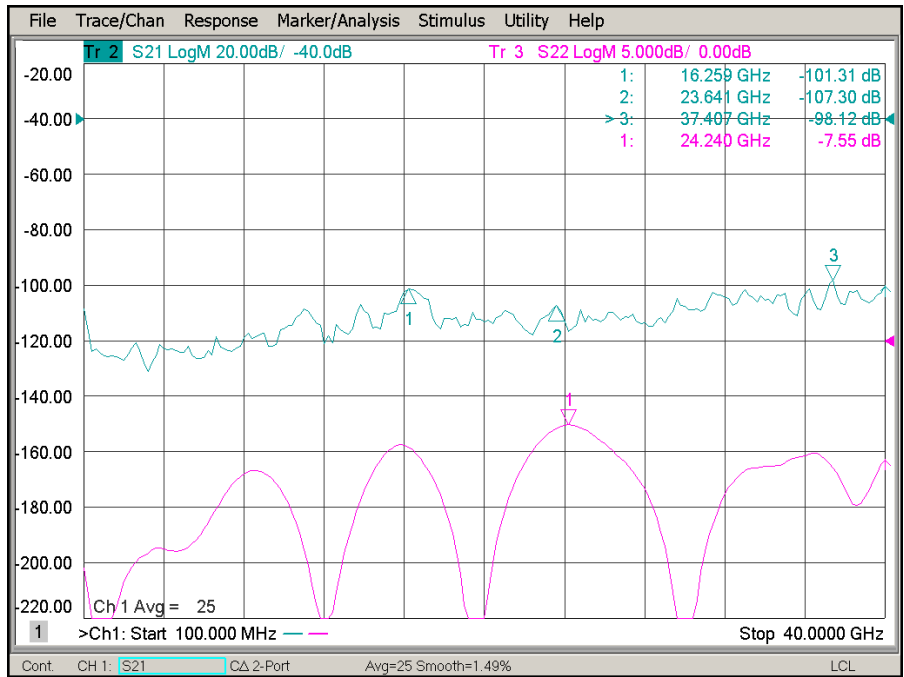


**SUMMARY TEST DATA
ON
P4T-100M40G-110-T-512-292FF-IND**

Insertion Loss and Return Loss



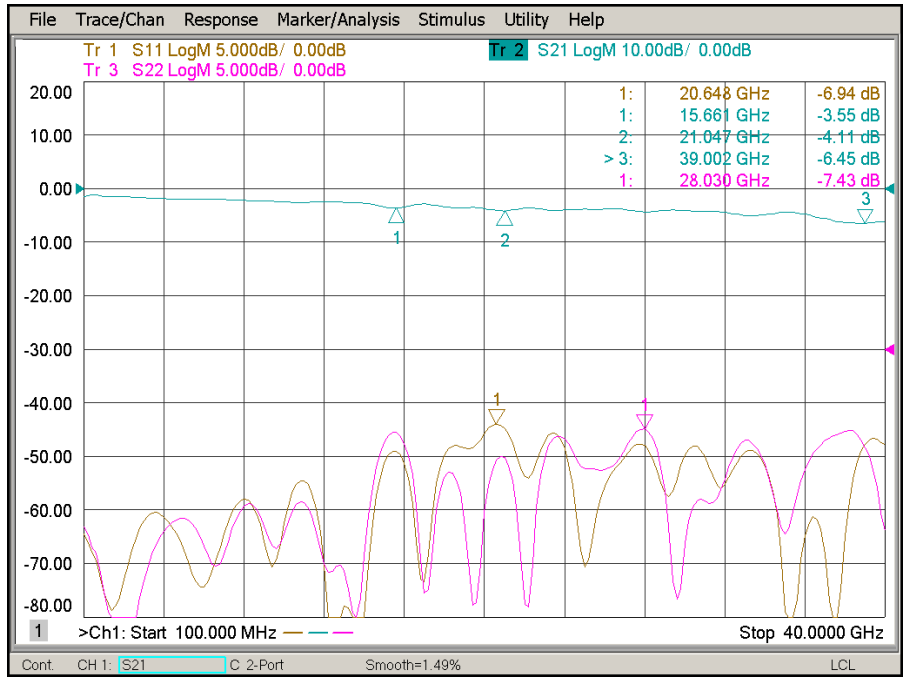
Termination Isolation and Return Loss



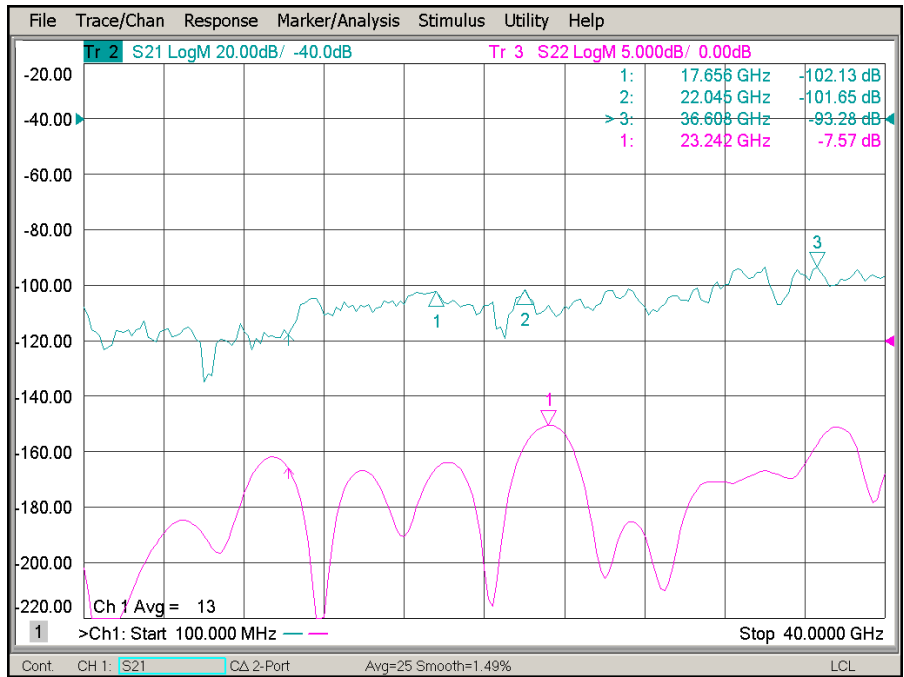


**SUMMARY TEST DATA
ON
P4T-100M40G-110-T-512-292FF-IND**

Insertion Loss and Return Loss



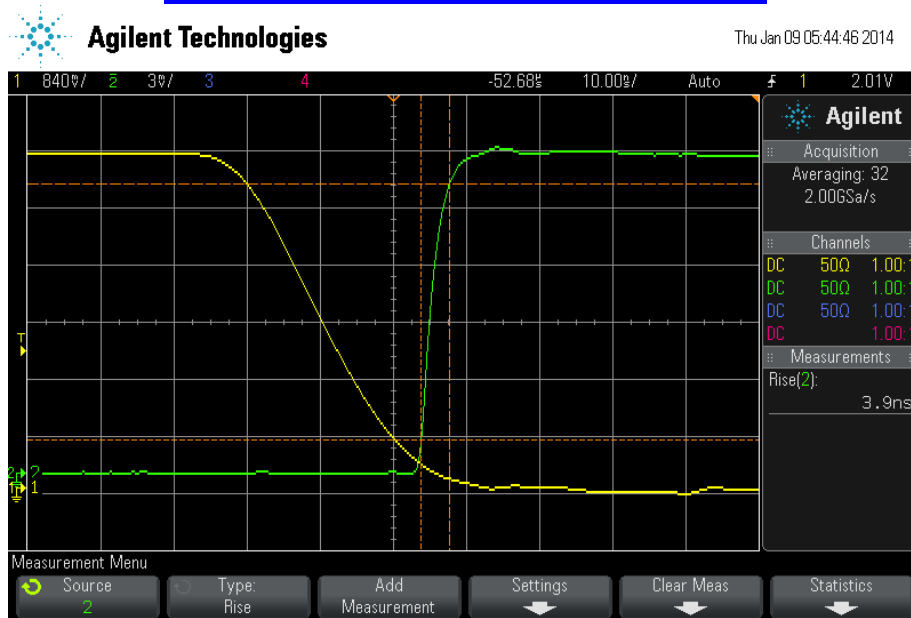
Termination Isolation and Return Loss



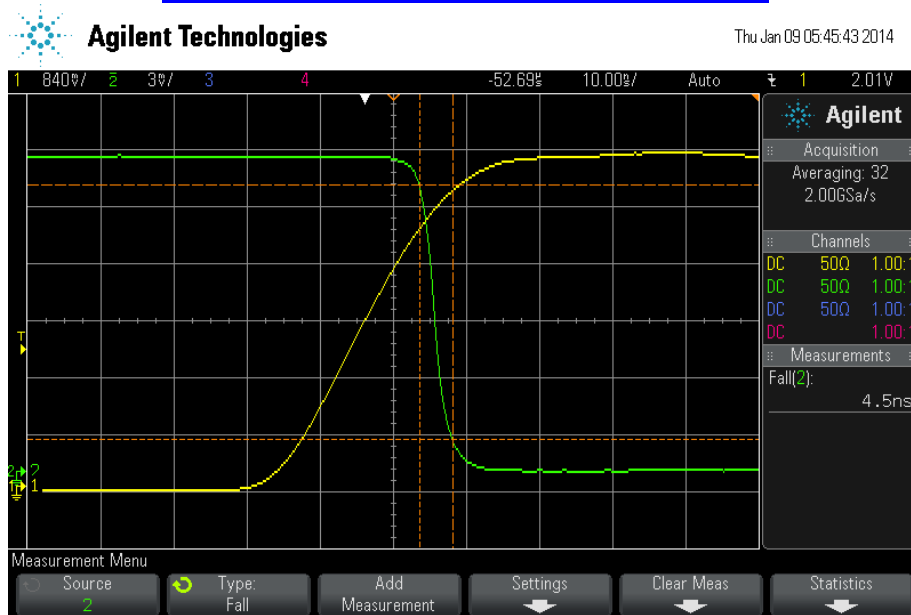


**SUMMARY TEST DATA
ON
P4T-100M40G-110-T-512-292FF-IND**

**Switching Speed
ON Delay and Rise Time – 10ns per Div.**



**Switching Speed
OFF Delay and Fall Time – 10ns per Div.**



Green Trace: RF Signal
Yellow Trace: TTL Signal

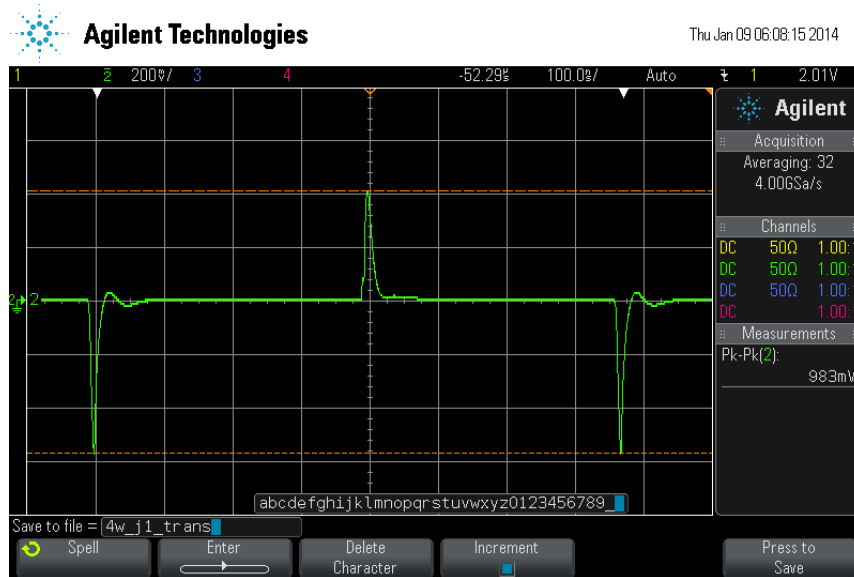
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**SUMMARY TEST DATA
ON
P4T-100M40G-110-T-512-292FF-IND**

Video Transients

Input



Output

