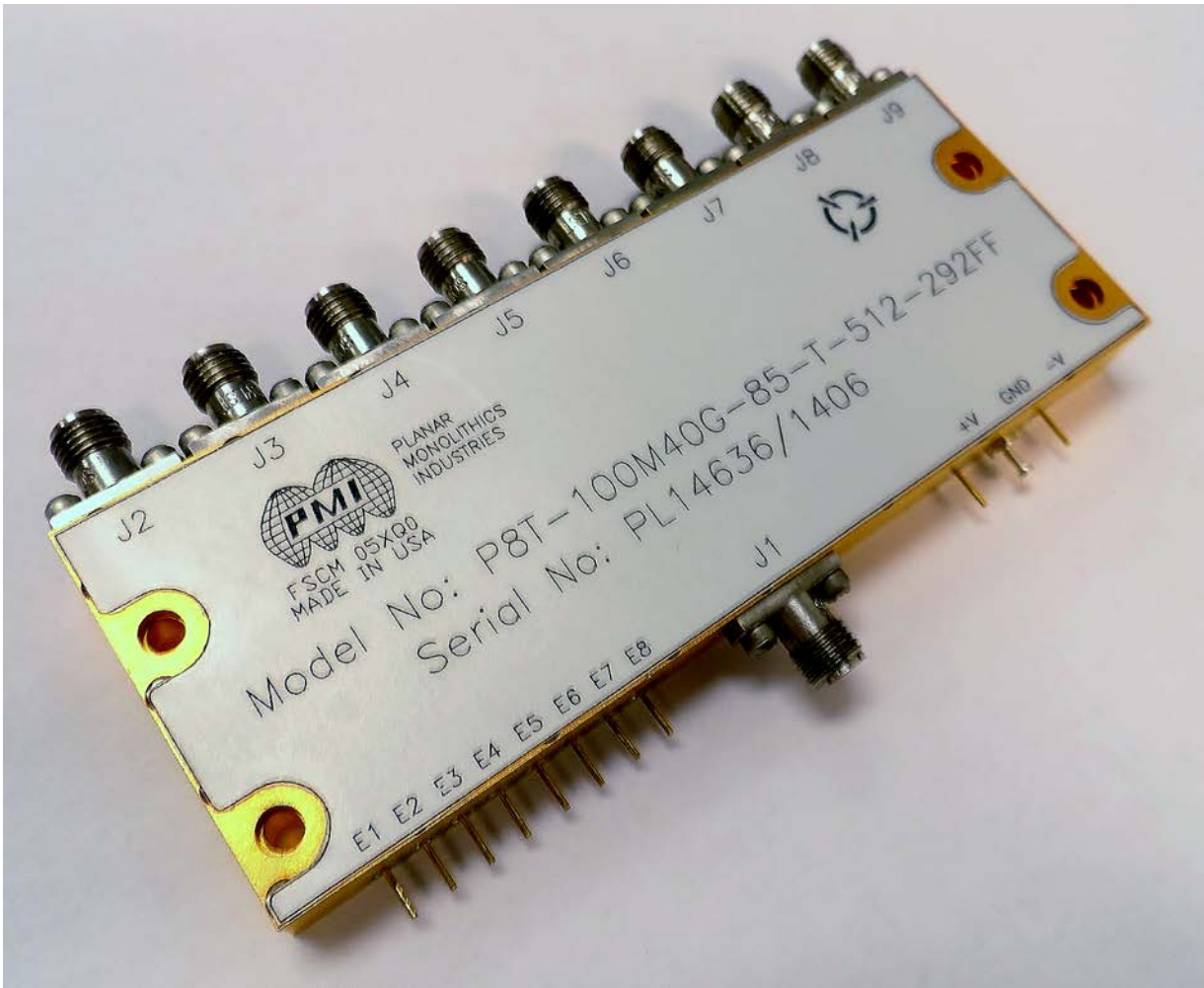




**TYPICAL CHARACTERISTICS
ON
P8T-100M40G-85-T-512-292FF**

THE MODEL P8T-100M40G-85-T-512-292FF IS A HIGH SPEED, SINGLE POLE, EIGHT THROW, ABSORPTIVE SWITCH CAPABLE OF SWITCHING WITHIN 100ns. THE FREQUENCY RANGE IS 0.1 TO 40.0 GHz AND THIS SWITCH HAS OVER 70dB OF ISOLATION.



February 27, 2017

Designed By: PMI Engineering

**Tested and 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



**TYPICAL CHARACTERISTICS
ON
P8T-100M40G-85-T-512-292FF**

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	0.1GHz to 40GHz	0.1GHz to 40GHz See Plots	
2	Insertion Loss:	10dB Max. 6dB Typ. (0.1 to 18 GHz) 7dB Typ. (18 to 26.5 GHz) 9.5dB Typ. (26.5 to 40 GHz)	5.0dB (0.1 to 18 GHz) 6.5dB (18 to 26.5 GHz) 9.0dB (26.5 to 40 GHz) See Plots	
3	Isolation:	90dB Min (0.1 to 18 GHz) 80dB Min (18 to 26.5 GHz) 70dB Min (26.5 to 40 GHz)	93.55dB Min (0.1 to 18 GHz) 82.52dB Min (18 to 26.5 GHz) 70.46dB (26.5 to 40 GHz) See Plots	
4	VSWR:	2.5:1 Typ.	2.47:1 See Plots	
5	Operating Input Power:	+20dBm CW Max	+20dBm CW Max	
6	Switching Speed:	100ns Max	30ns See Plots	
7	Control TTL	Logic "0" = Insertion Loss Logic "1" = Isolation	Logic "0" = Insertion Loss Logic "1" = Isolation	
8	Power Supply:	+5VDC @ 180mA -12VDC @ 65mA	67mA 65mA	



TYPICAL CHARACTERISTICS ON P8T-100M40G-85-T-512-292FF

DESCRIPTION

THE MODEL P8T-100M40G-85-T-512-292FF IS A HIGH SPEED, SINGLE POLE, EIGHT THROW, ABSORPTIVE SWITCH CAPABLE OF SWITCHING WITHIN 100ns. THE FREQUENCY RANGE IS 0.1 TO 40.0 GHz AND THIS SWITCH HAS OVER 70dB OF ISOLATION.

SPECIFICATIONS

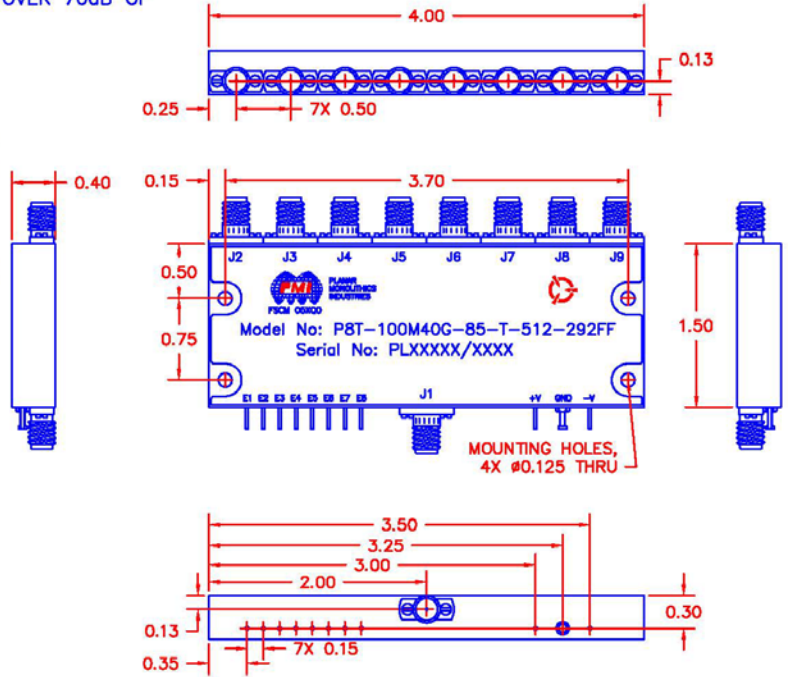
- FREQUENCY RANGE: 0.1 TO 40.0 GHz
- ISOLATION 90dB Min. (0.1 to 18GHz)
80dB Min. (18 to 26.5GHz)
70dB Min. (26.5 to 40GHz)
- INSERTION LOSS 10dB MAX
6dB Typ. (0.1 to 18GHz)
7dB Typ. (18 to 26.5GHz)
9.5dB Typ. (26.5 to 40GHz)
- VSWR IN/OUT 2.5:1 Typ.
- OPERATING INPUT POWER +20dBm CW
- SWITCHING SPEED 100 ns Max.
- DC VOLTAGE AND CURRENT +5VDC @ 180mA
-12VDC @ 65mA
- 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" INSERTION LOSS
"1" ISOLATION
- CONNECTORS 2.92mm (F)
- FINISH GOLD PLATED
- SIZE 4.0" X 1.5" X 0.4"

ENVIRONMENTAL RATINGS

- TEMPERATURE: -54°C TO +95°C (OPERATING)
-65°C TO +125°C (STORAGE)
- HUMIDITY: MIL-STD-202F, METHOD 103B COND. B
- SHOCK: MIL-STD-202F, METHOD 213B COND. B
- VIBRATION: MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE: MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-STD-202F, METHOD 107D COND. A

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

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	ORIGINAL RELEASE	10/29/18	
A1		ECN # 14-0033	08/20/18	



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

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



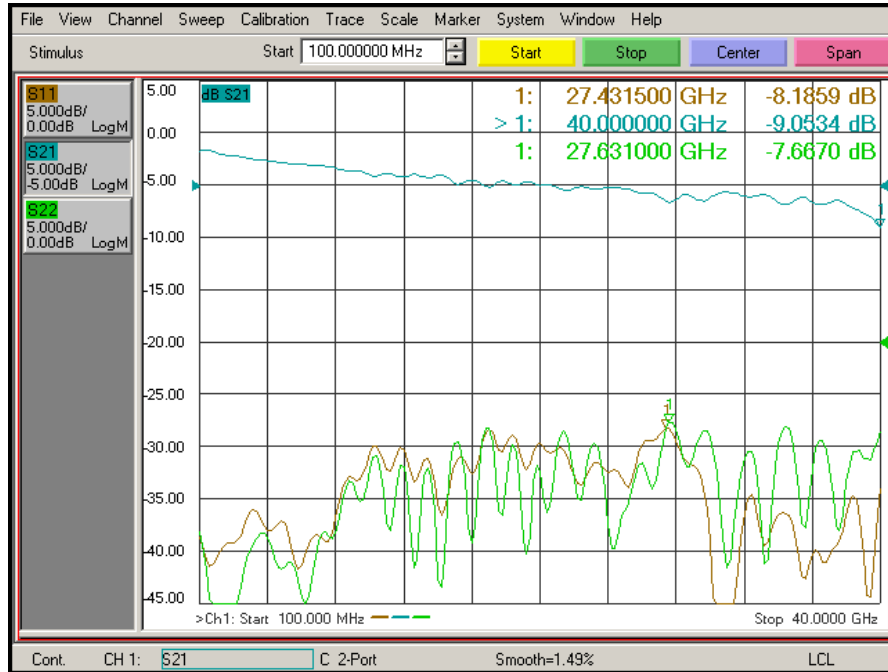
APPROVALS		DATE		TITLE	
DRAWN <i>JSJ</i>		10/29/18		PRODUCT FEATURE	
CHECKED				P8T-100M40G-85-T-512-292FF	
ISSUED				0.1 TO 40.0 GHz HIGH SPEED SWITCH 8 THROW	
SIZE	PBOM NO.	QWG NO.	REV.		
A	05XQ0	27021081	A1		
SCALE: N:S			SHEET 1 OF 1		

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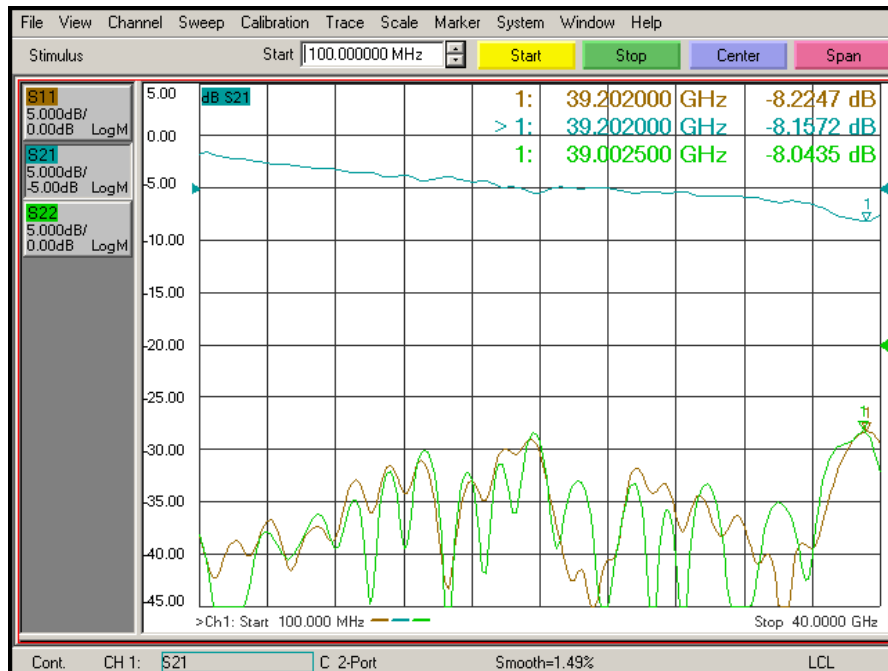


TYPICAL CHARACTERISTICS ON P8T-100M40G-85-T-512-292FF

(J1-J2) Insertion Loss and Return Loss



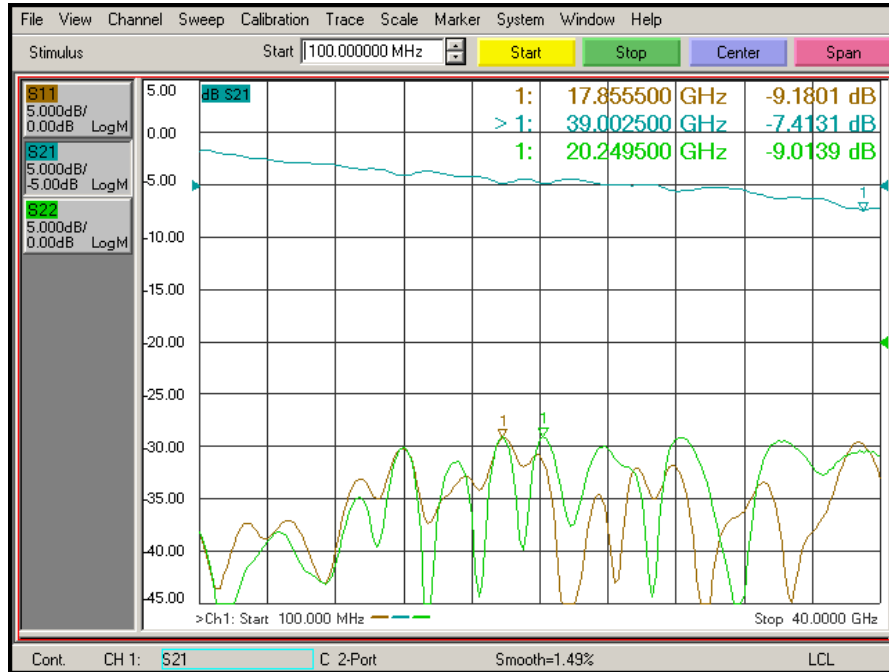
(J1-J3) Insertion Loss and Return Loss



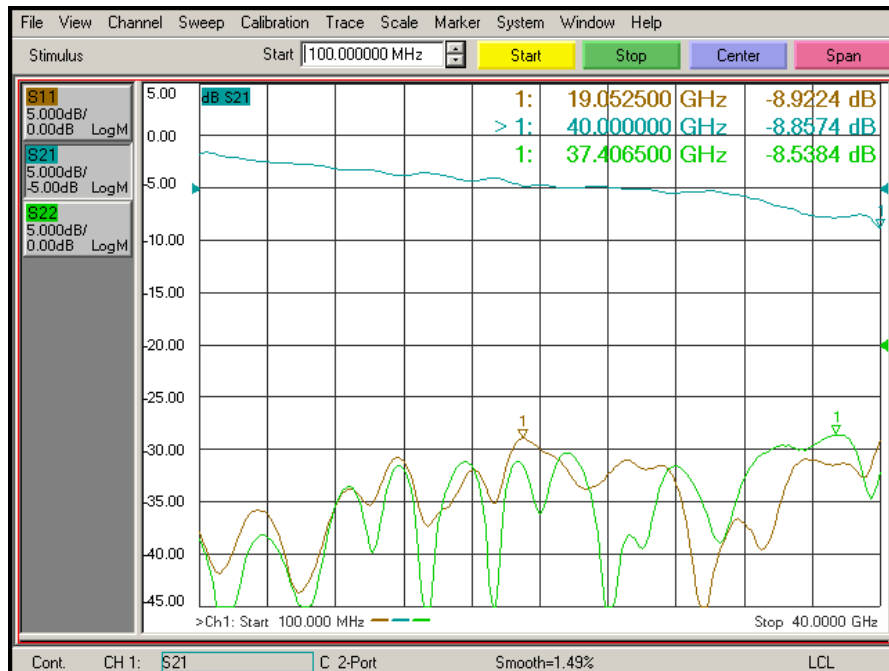


**TYPICAL CHARACTERISTICS
ON
P8T-100M40G-85-T-512-292FF**

(J1-J4) Insertion Loss and Return Loss



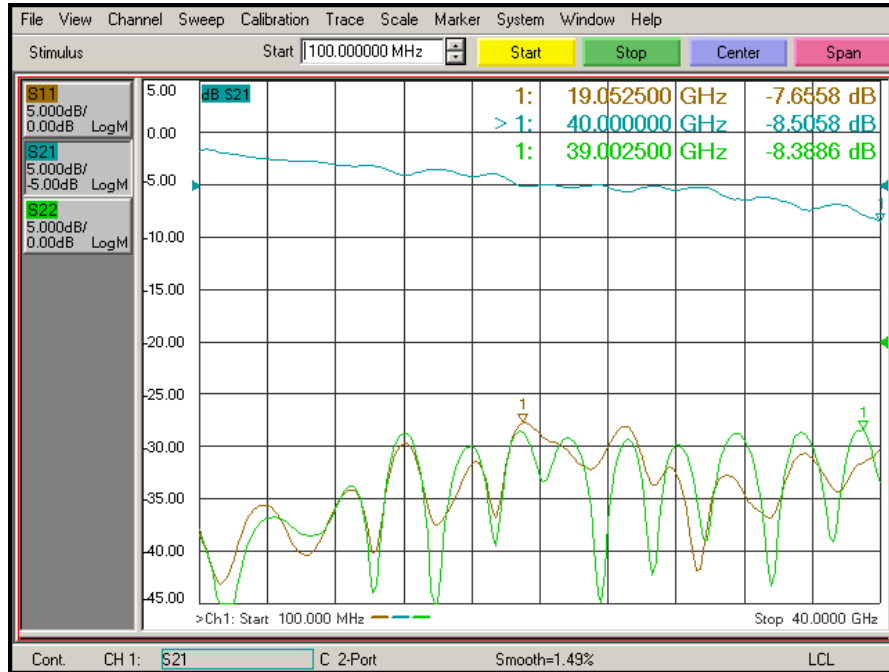
(J1-J5) Insertion Loss and Return Loss



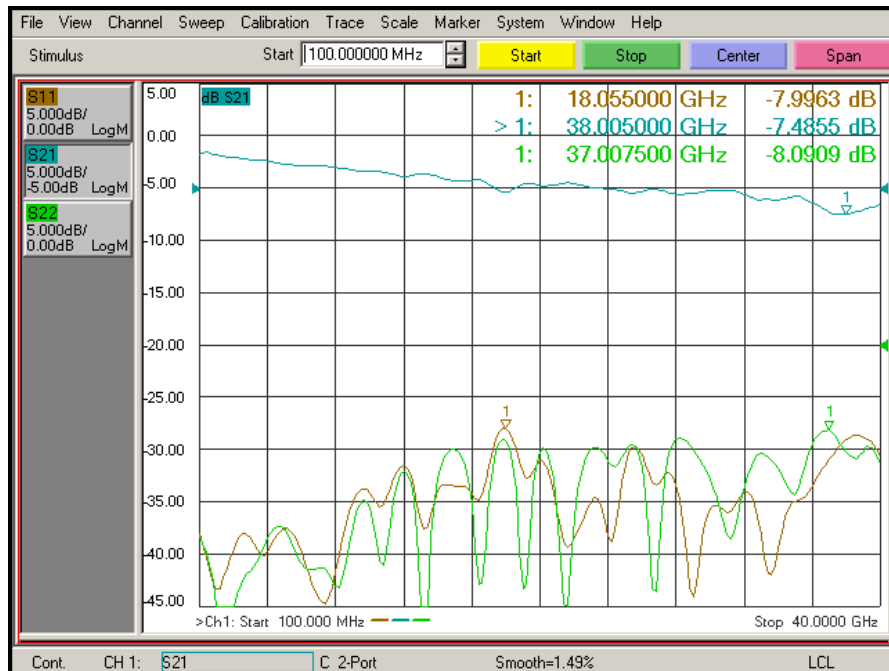


**TYPICAL CHARACTERISTICS
ON
P8T-100M40G-85-T-512-292FF**

(J1-J6) Insertion Loss and Return Loss



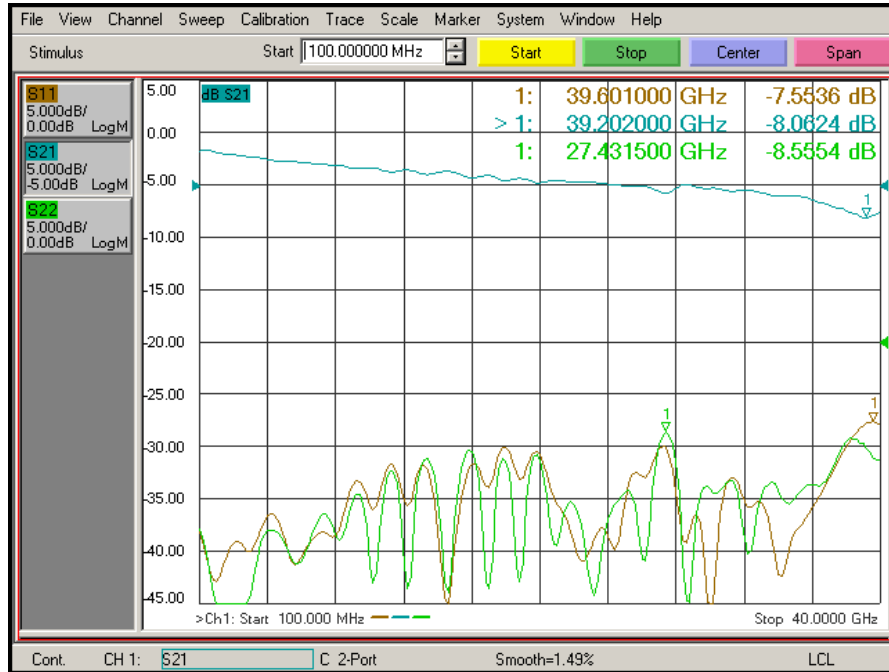
(J1-J7) Insertion Loss and Return Loss



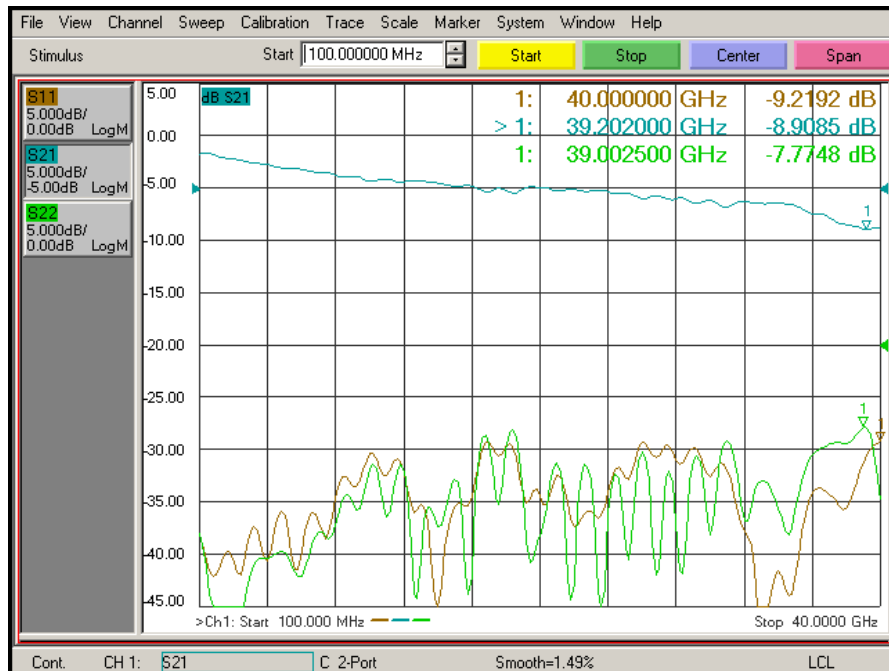


**TYPICAL CHARACTERISTICS
ON
P8T-100M40G-85-T-512-292FF**

(J1-J8) Insertion Loss and Return Loss



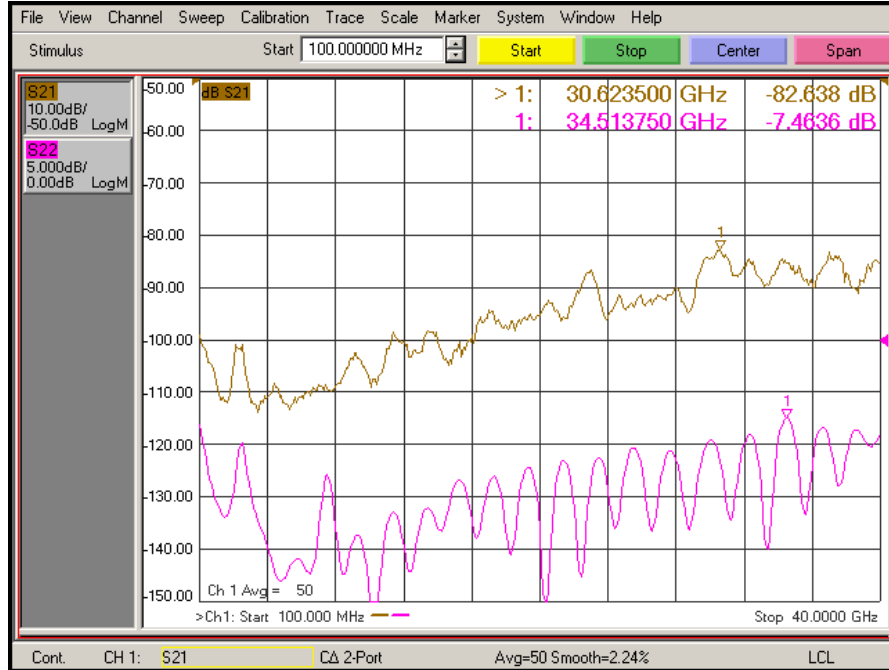
(J1-J9) Insertion Loss and Return Loss





**TYPICAL CHARACTERISTICS
ON
P8T-100M40G-85-T-512-292FF**

(J1 – J2) Isolation and Termination Return Loss



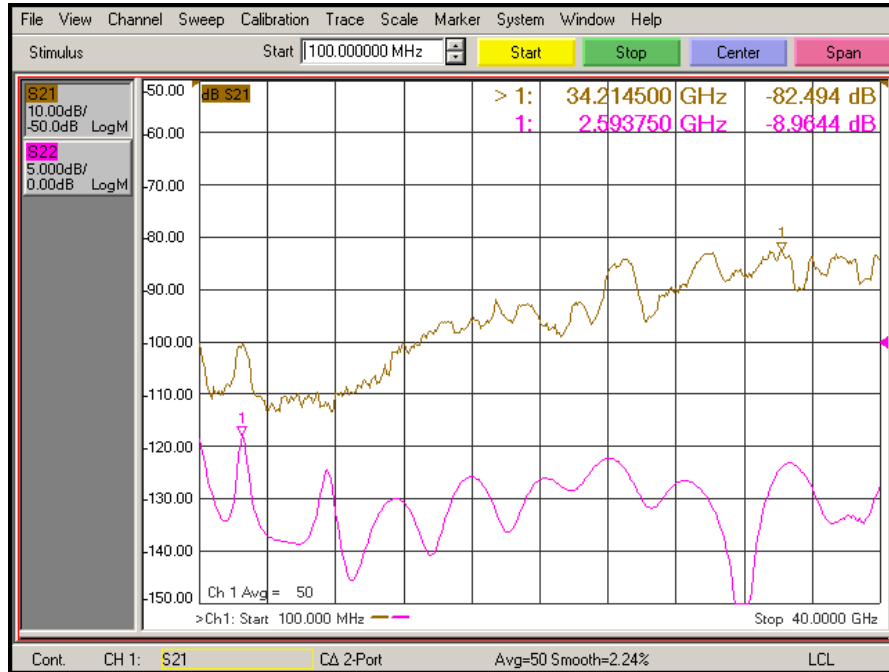
(J1 – J3) Isolation and Termination Return Loss



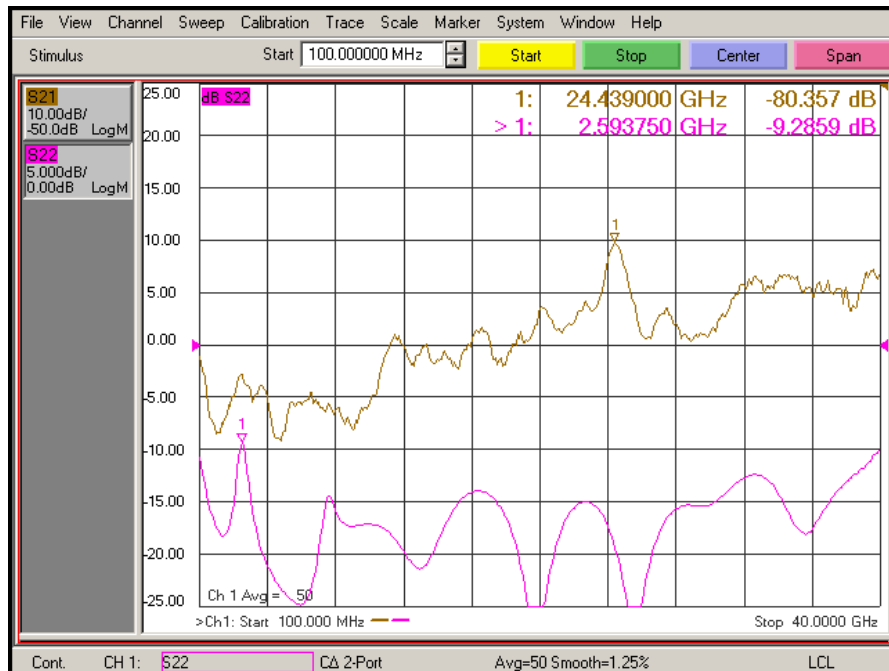


**TYPICAL CHARACTERISTICS
ON
P8T-100M40G-85-T-512-292FF**

(J1 – J4) Isolation and Termination Return Loss



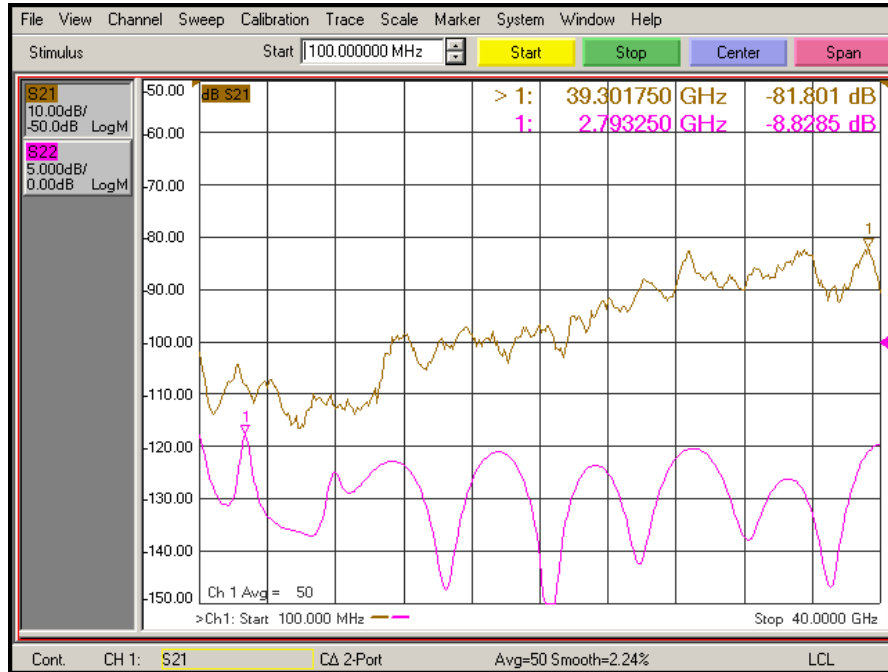
(J1 – J5) Isolation and Termination Return Loss





**TYPICAL CHARACTERISTICS
ON
P8T-100M40G-85-T-512-292FF**

(J1 – J6) Isolation and Termination Return Loss



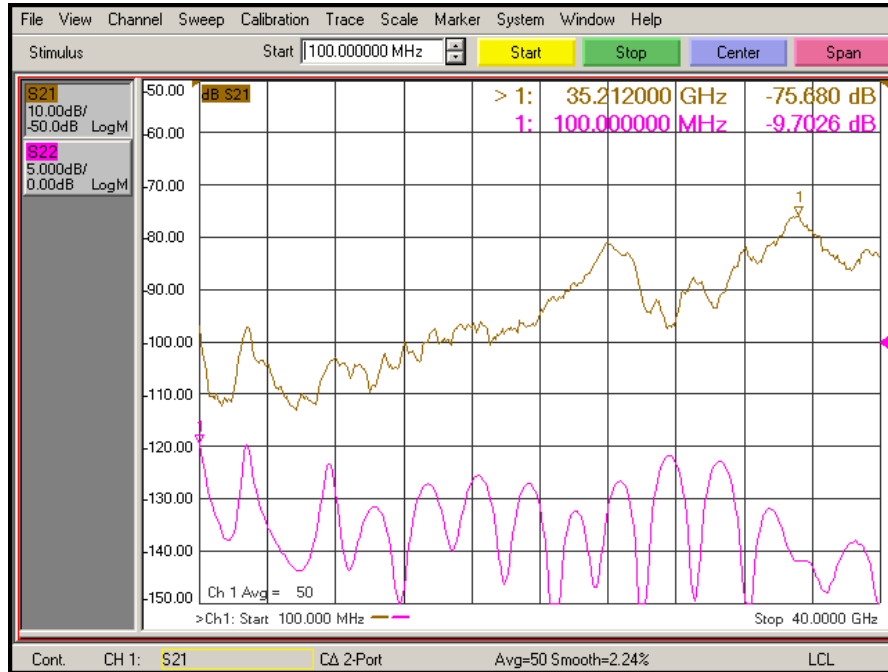
(J1 – J7) Isolation and Termination Return Loss





TYPICAL CHARACTERISTICS ON P8T-100M40G-85-T-512-292FF

(J1 – J8) Isolation and Termination Return Loss



(J1 – J9) Isolation and Termination Return Loss



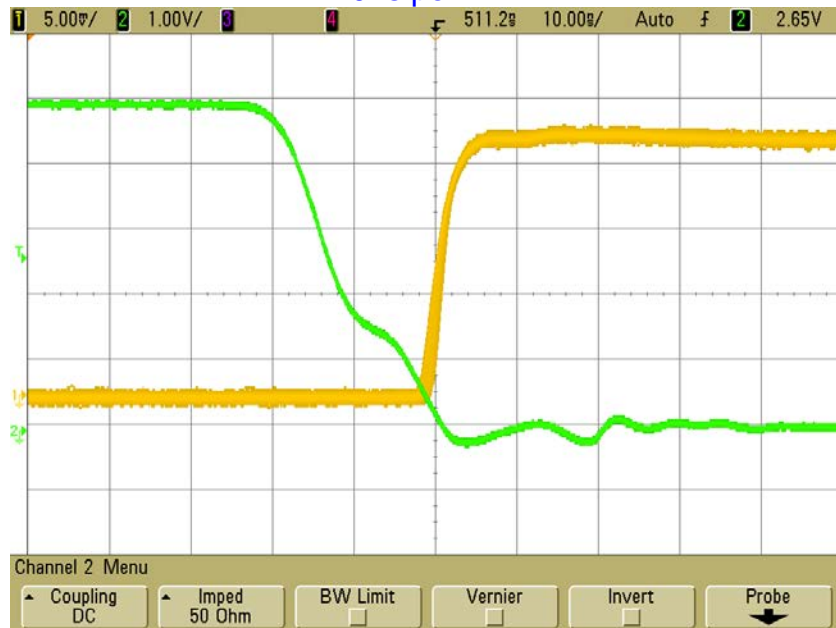


**TYPICAL CHARACTERISTICS
ON
P8T-100M40G-85-T-512-292FF**

OFF Delay
10ns per Div.



ON Delay
10ns per Div.



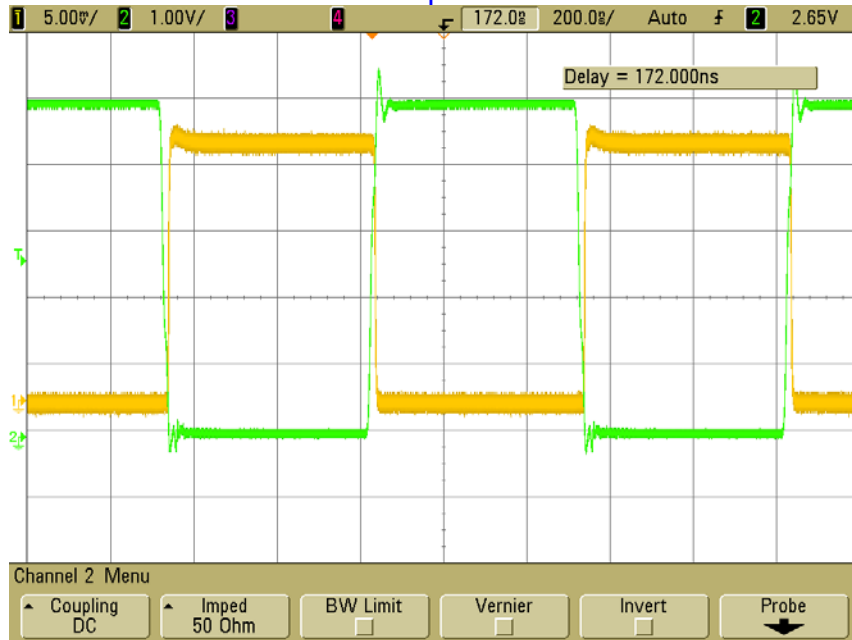
**GREEN TRACE: TTL SIGNAL
YELLOW TRACE: RF SIGNAL**



**TYPICAL CHARACTERISTICS
ON
P8T-100M40G-85-T-512-292FF**

Full Pulse

200ns per Div.



100ns per Div.



**GREEN TRACE: TTL SIGNAL
YELLOW TRACE: RF SIGNAL**

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