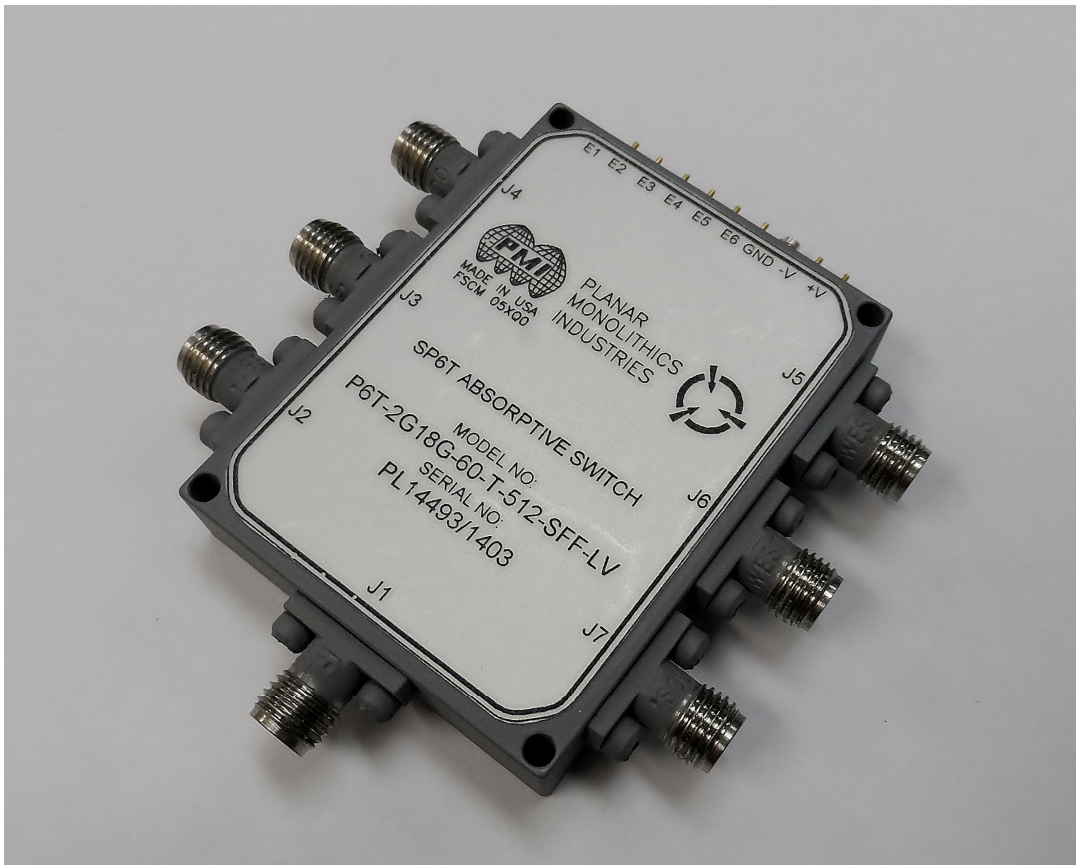




**TYPICAL CHARACTERISTICS
ON
P6T-2G18G-55-T-512-SFF-LV-SP**

**PMI MODEL NUMBER: P6T-2G18G-60-T-512-SFF-LV-SP IS A SINGLE POLE,
SIX THROW ABSORBPTIVE SOLID STATE SWITCH THAT OPERATES OVER THE
FREQUENCY RANGE OF 2 GHz TO 18 GHz. THIS MODEL HAS A MAXIMUM INSERTION
LOSSOF 4.0DdB AND A MINIMUM ISOLATION SPECIFICATION OF 60 Db.
IT OPERATES AT 23dBm CW MAXIMUM AND HAS A SURVIVAL SPECIFICATION OF
27dBm CW MAXIMUM**



January 27, 2014

Designed By: PMI Engineering

**Tested & Reported:
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 P6T-2G18G-55-T-512-SFF-LV-SP

DESCRIPTION

PMI MODEL NUMBER: P6T-2G18G-60-T-512-SFF-LV-SP IS A SINGLE POLE, SIX THROW ABSORBPTIVE SOLID STATE SWITCH THAT OPERATES OVER THE FREQUENCY RANGE OF 2 GHz TO 18 GHz. THIS MODEL HAS A MAXIMUM INSERTION LOSS OF 4.0dB AND A MINIMUM ISOLATION SPECIFICATION OF 60dB. IT OPERATES AT 23dBm CW MAXIMUM, AND HAS A SURVIVAL SPECIFICATION OF 27dBm CW MAXIMUM.

SPECIFICATIONS

- FREQUENCY RANGE: 2 TO 18 GHz
- INSERTION LOSS: 4dB MAX
 - TRACKING: 0.8dB WINDOW MAX
- ISOLATION: 60dB MAX
- VSWR: 2.0:1 MAX
- IMPEDANCE: 50 OHMS
- INPUT POWER: 23dBm CW MAX (OPERATING)
27dBm CW MAX (SURVIVAL)
- SWITCHING SPEED: 50ns MAX
 - ON: 50% TTL TO 90% RF
 - OFF: 50% TTL TO 10% RF
- SWITCHING RATE PRF: 5MHz
- VIDEO LEAKAGE: 50mV PEAK-PEAK MAX
MEASURED AT 300MHz BW
- CONTROL: 6 LINE INDEPENDENT TTL LOGIC
 - LOGIC 0: 1.6mA MAX SINK @ 0.4V (INSERTION LOSS)
 - LOGIC 1: 40uA MAX SOURCE @ 2.4V (ISOLATION)
*SURGE PROTECTION INCLUDED ON TTL LINES
- DC SUPPLY: +5VDC @ 300mA TYP
-12VDC @ 100mA TYP
- CONNECTORS: SMA (F) REMOVABLE
- SIZE: (L) 1.5" X (W) 2.0" (H) 0.4"
- SEALING: HERMETIC
- FINISH: GRAY EPOXY POLIMIDE COATING IAW
MIL-C-22750, TYPE I OVER EPOXY
POLIMIDE PRIMER IAW MIL-P-23377,
TYPE I, CLASS 1 OR 3.

ENVIRONMENTAL RATINGS

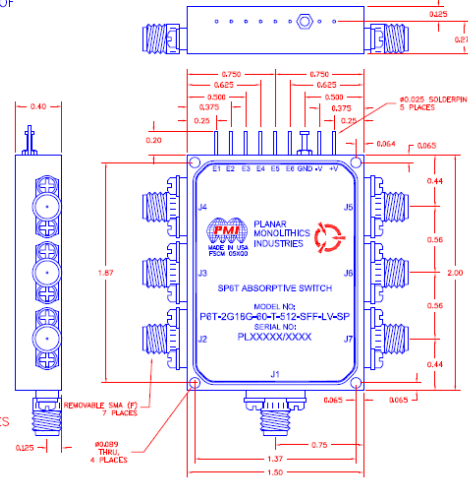
- TEMPERATURE: -40°C TO + 85°C (OPERATING)
- HUMIDITY: -85°C TO +125°C (STORAGE)
- SHOCK: MIL-STD-202F, METHOD 103B COND. B
- VIBRATION: MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE: MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-STD-202F, METHOD 107D COND. A

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE
NOTE: DIMENSIONS TO DIMENSIONS OF SPECIFICATIONS MUST BE APPROVED BY THE END USER

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
XXX .01/020
XXX .01/010

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	1	ORIGINAL RELEASE	8/8/11	

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	
DESIGN	<i>JK</i>	10/02/11	PRODUCT FEATURE	
REVISION	<i>B.H.F</i>	5/18/11	P6T-2G18G-60-T-512-SFF-LV-SP	
ISSUED			SIZE FROM NO.	DWG NO.
			A	05XQ0
				27032841
			SCALE	N:S
				SHEET 1 OF 1



**TYPICAL CHARACTERISTICS
ON
P6T-2G18G-55-T-512-SFF-LV-SP**

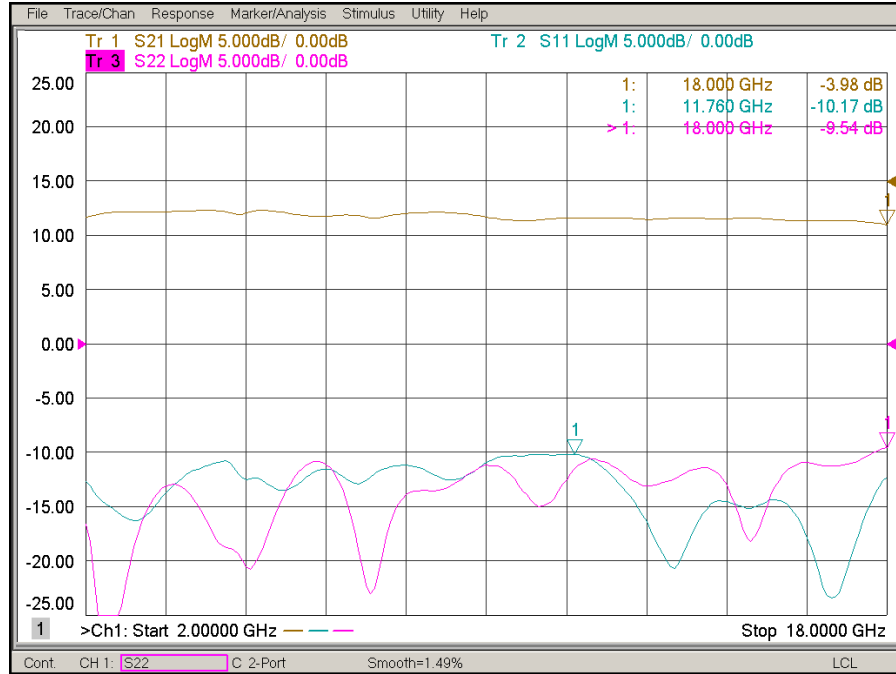
TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	2 GHz to 18 GHz	2 GHz to 18 GHz See Plot	
2	Insertion Loss:	4.0dB Max	3.98dB See Plot	
3	Insertion Loss Tracking between all ports:	0.8dB Window Max	0.4dB See Plot	
4	Isolation:	60dB Min	78.01dB See Plot	
5	VSWR:	2.0:1 Max	2.00:1 See Plot	
6	Impedance:	50 Ohms	50 Ohms	
7	Input Power:	23dBm CW Max (Operating) 27dBm CW Max (Survival)	23dBm CW Max (Operating) 27dBm CW Max (Survival)	
8	Switching Speed:	50ns Max On - (50% TTL to 90% RF) Off - (50% TTL to 10% RF)	30ns See Plots	
9	Switching Rate PRF:	5MHz	5MHz See Plot	
10	Video Leakage:	50mV Peak to Peak Max Measured at 300MHz BW	2mV See Plot	
11	Control:	6 Line Independent TTL "0" – 1.6mA Max @ 0.4V (IL) "1" – 40uA Max @ 2.4V (Isol)	Pass	
12	DC Supply:	+5VDC @ 300mA Typ -12VDC @ 100mA Typ	121mA 33mA	

Insertion Loss and Return Loss (J1 – J2)

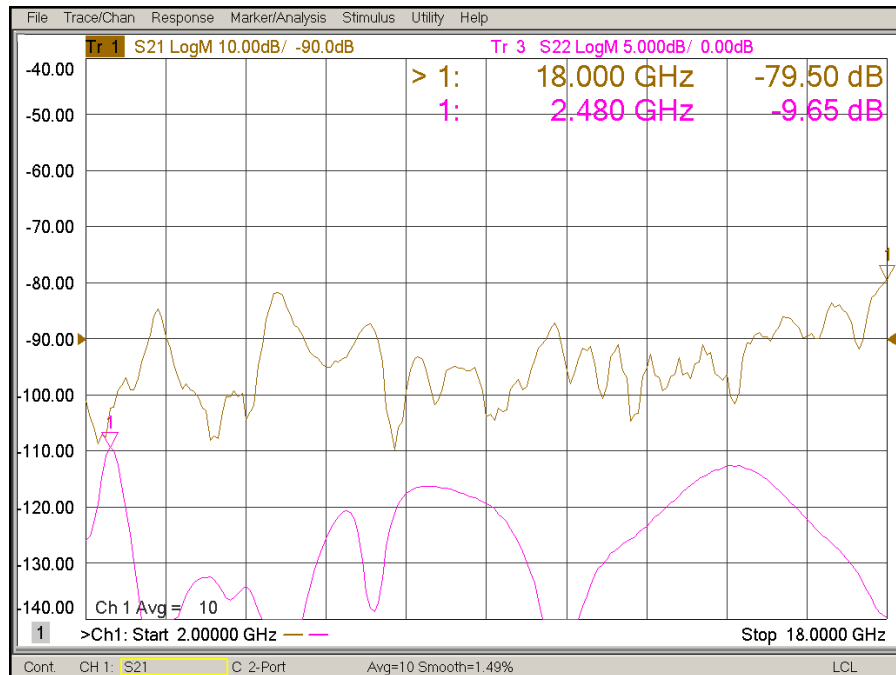
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**TYPICAL CHARACTERISTICS
ON
P6T-2G18G-55-T-512-SFF-LV-SP**



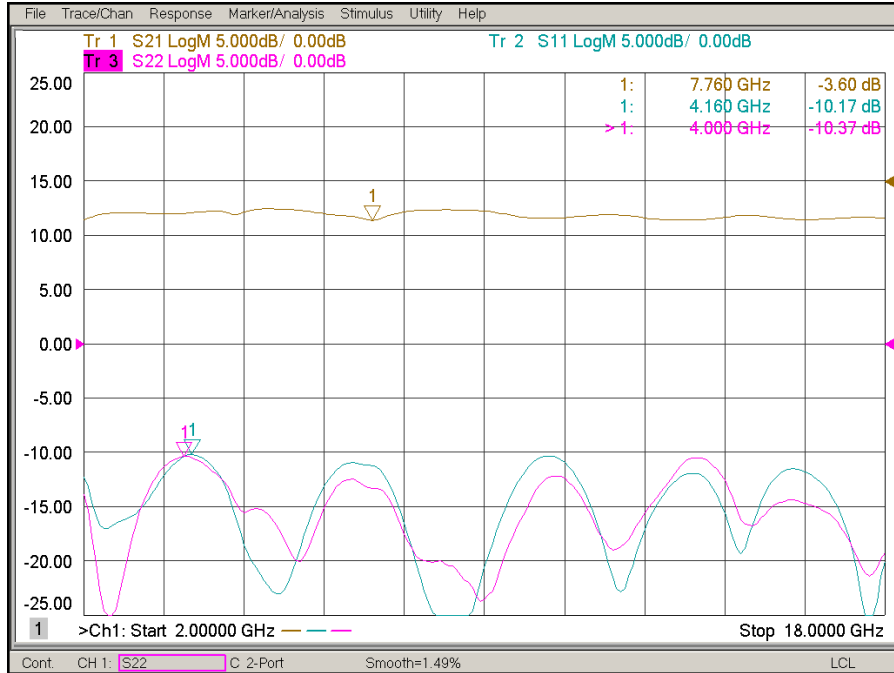
Isolation and Termination (J1 – J2)



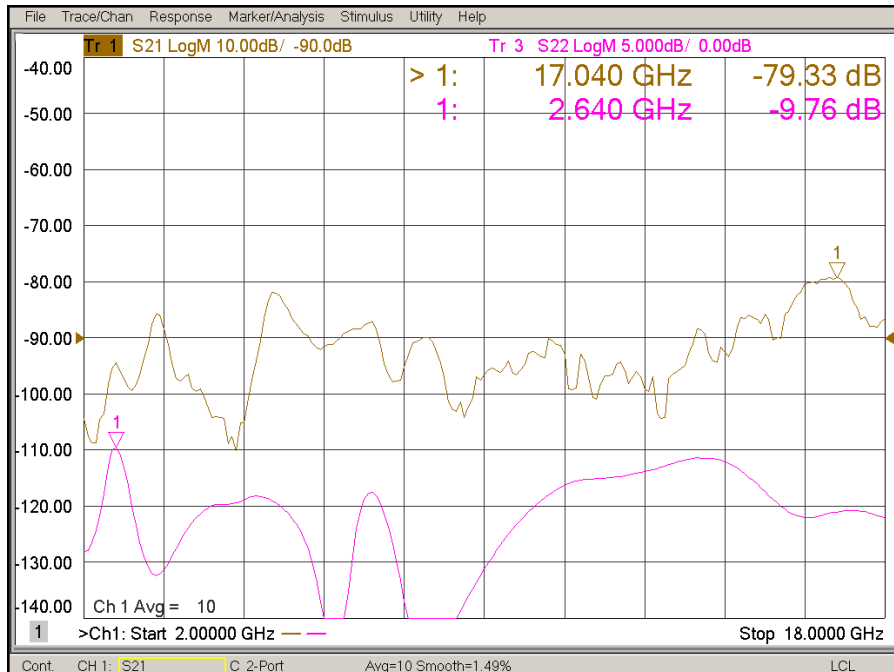


**TYPICAL CHARACTERISTICS
ON
P6T-2G18G-55-T-512-SFF-LV-SP**

Insertion Loss and Return Loss (J1 – J3)



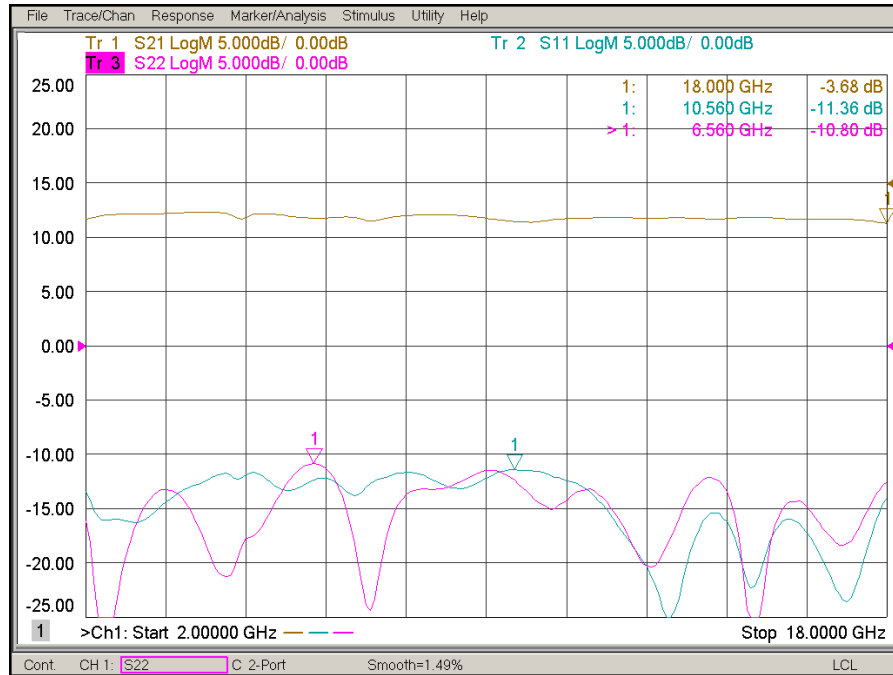
Isolation and Termination (J1 – J3)



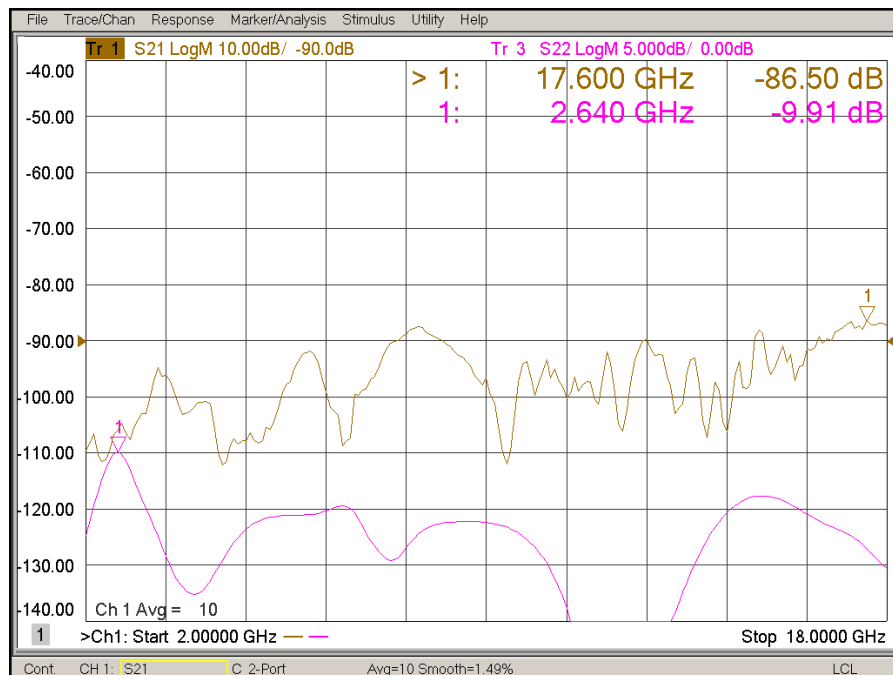


TYPICAL CHARACTERISTICS ON P6T-2G18G-55-T-512-SFF-LV-SP

Insertion Loss and Return Loss (J1 – J4)



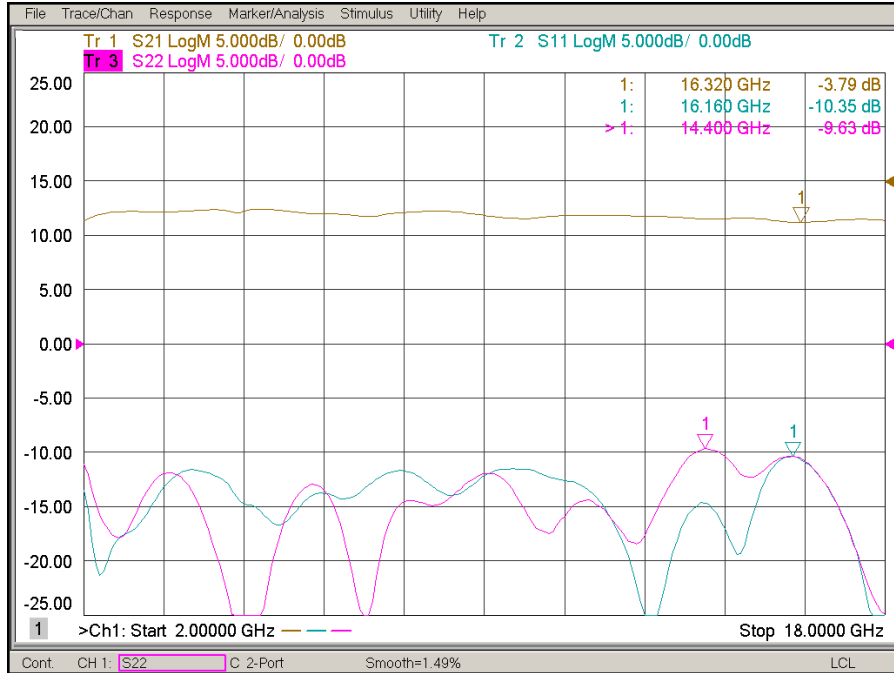
Isolation and Termination (J1 – J4)



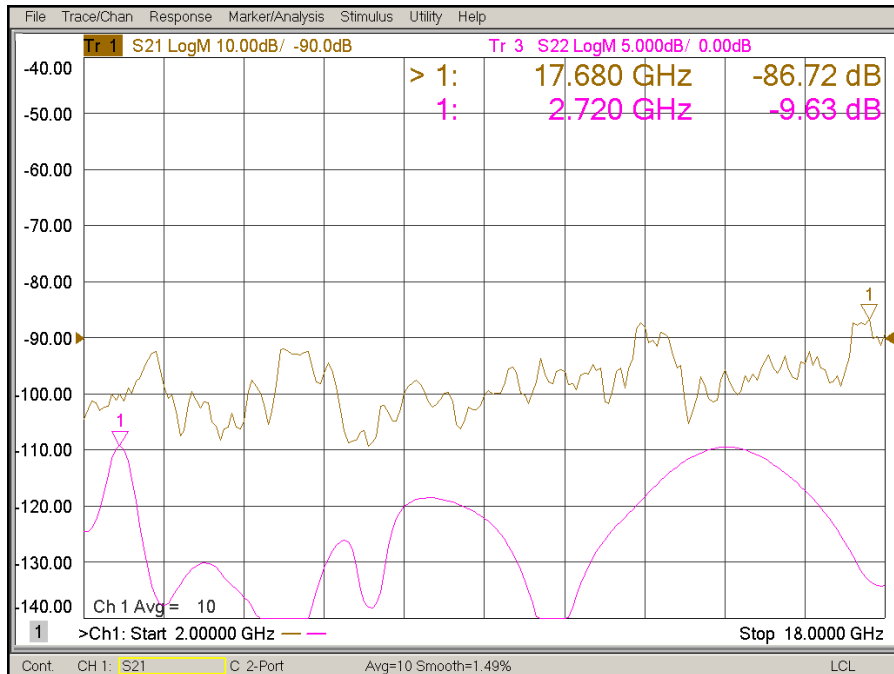


**TYPICAL CHARACTERISTICS
ON
P6T-2G18G-55-T-512-SFF-LV-SP**

Insertion Loss and Return Loss (J1 – J5)



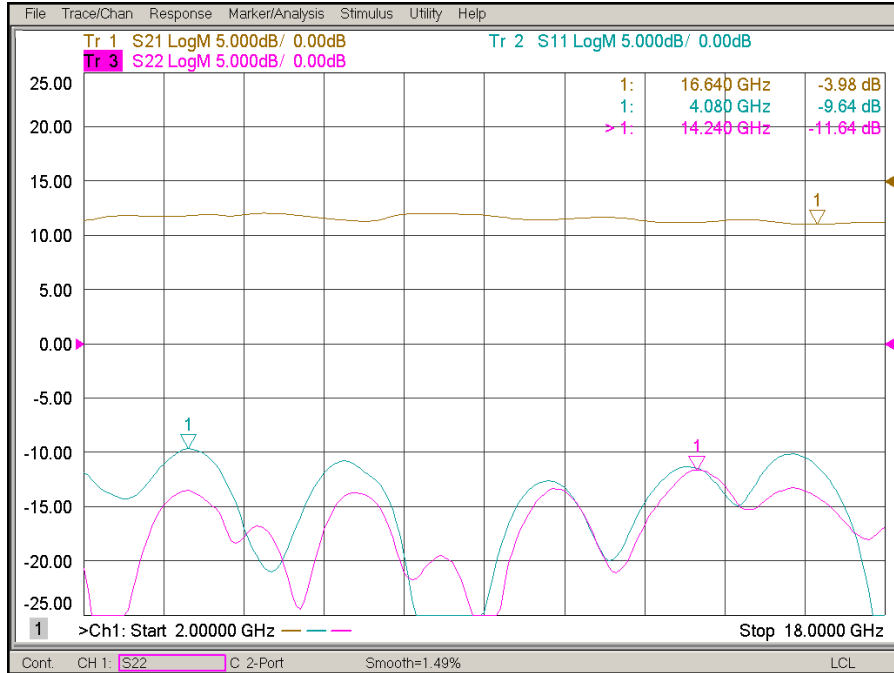
Isolation and Termination (J1 – J5)



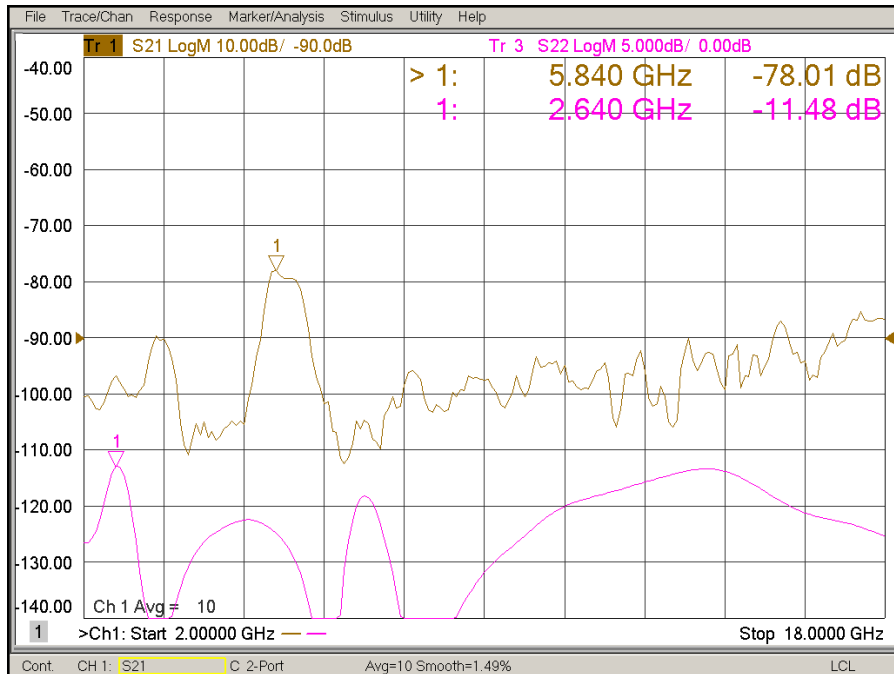


**TYPICAL CHARACTERISTICS
ON
P6T-2G18G-55-T-512-SFF-LV-SP**

Insertion Loss and Return Loss (J1 – J6)



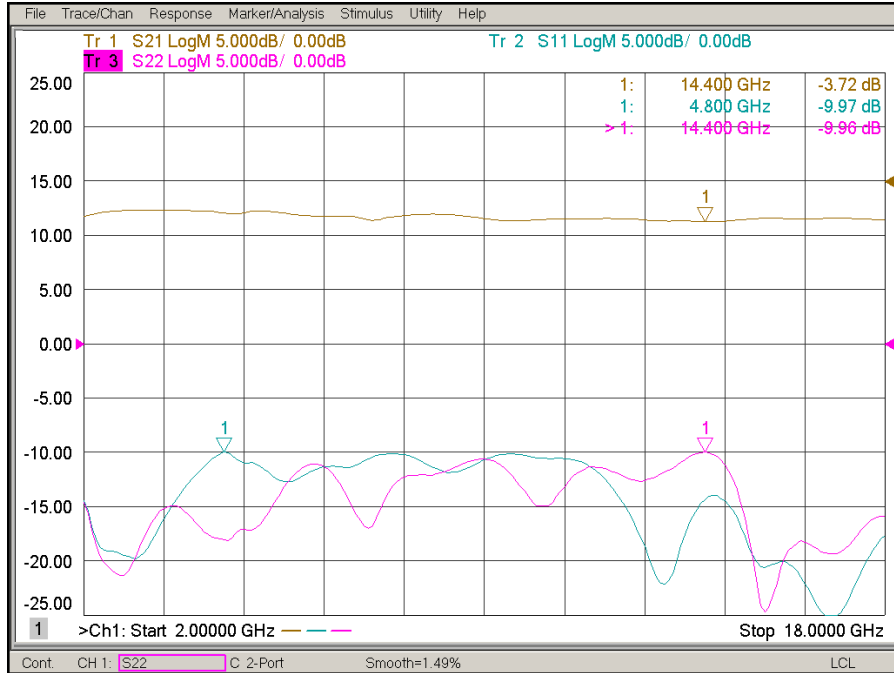
Isolation and Termination (J1 – J6)



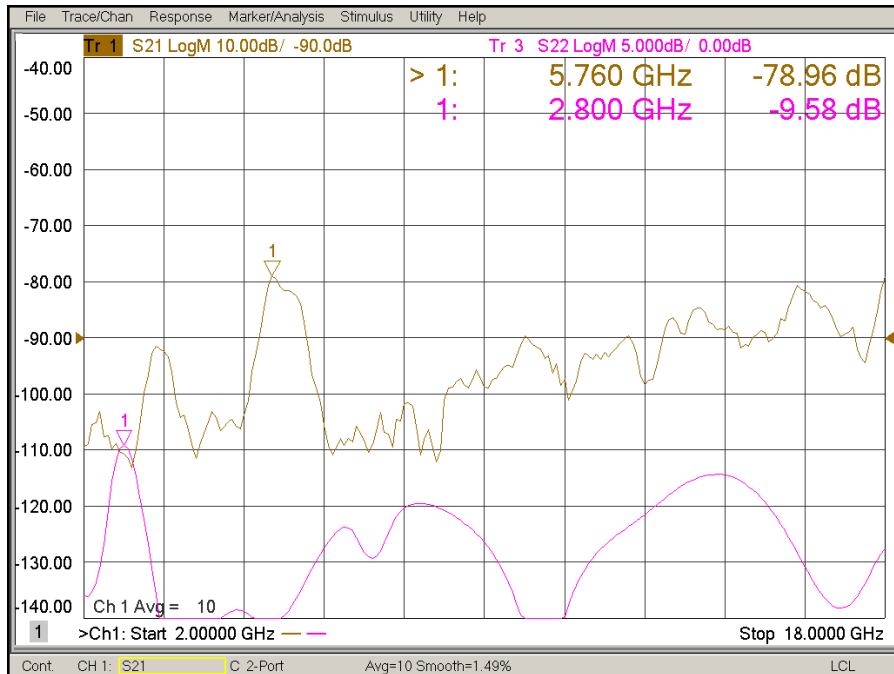


**TYPICAL CHARACTERISTICS
ON
P6T-2G18G-55-T-512-SFF-LV-SP**

Insertion Loss and Return Loss (J1 – J7)



Isolation and Termination (J1 – J7)

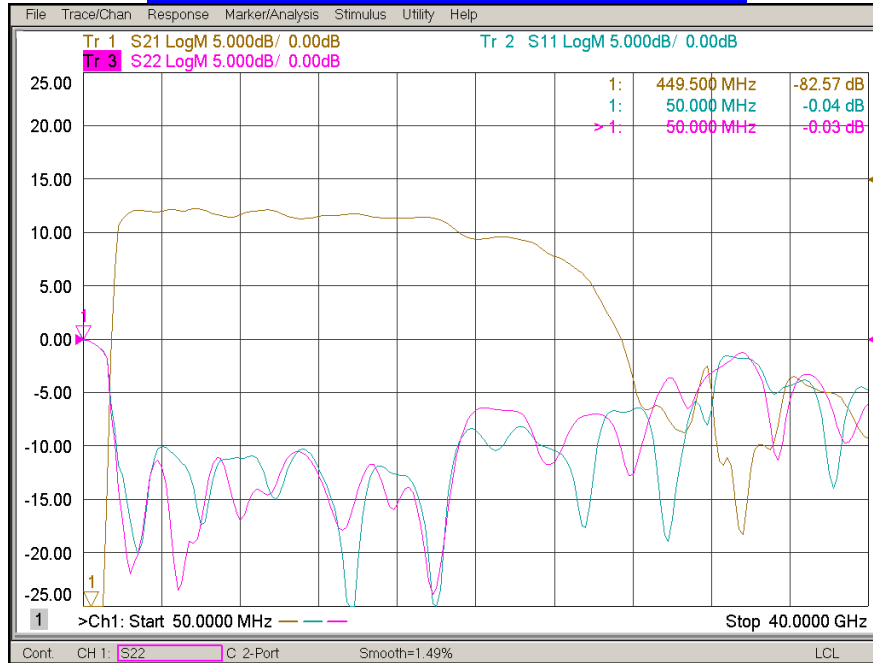




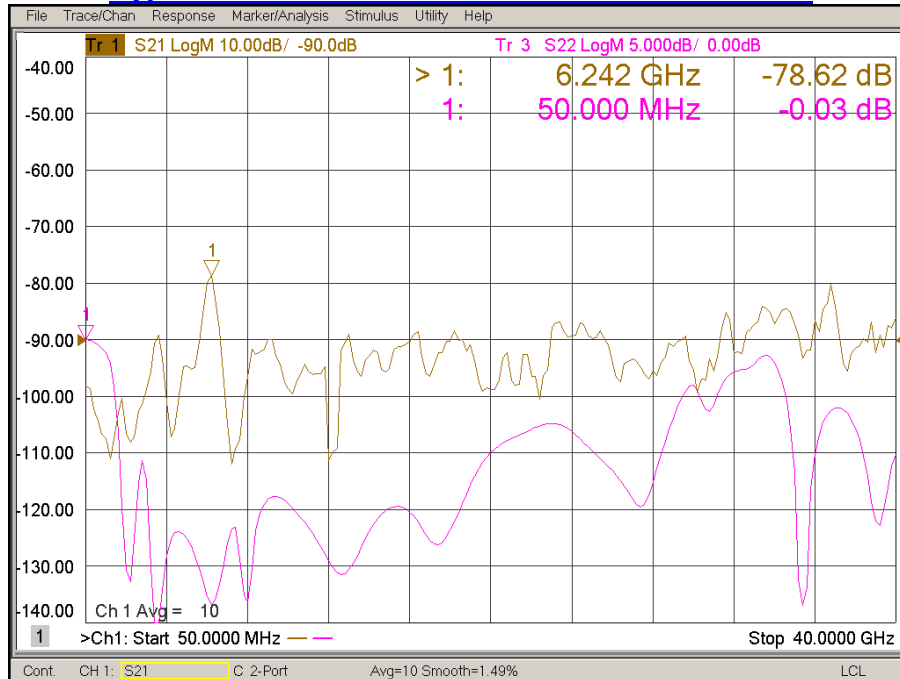
TYPICAL CHARACTERISTICS ON P6T-2G18G-55-T-512-SFF-LV-SP

Extended Data from 50MHz to 40GHz

Typical Insertion Loss and Return Loss



Typical Isolation and Termination Return Loss

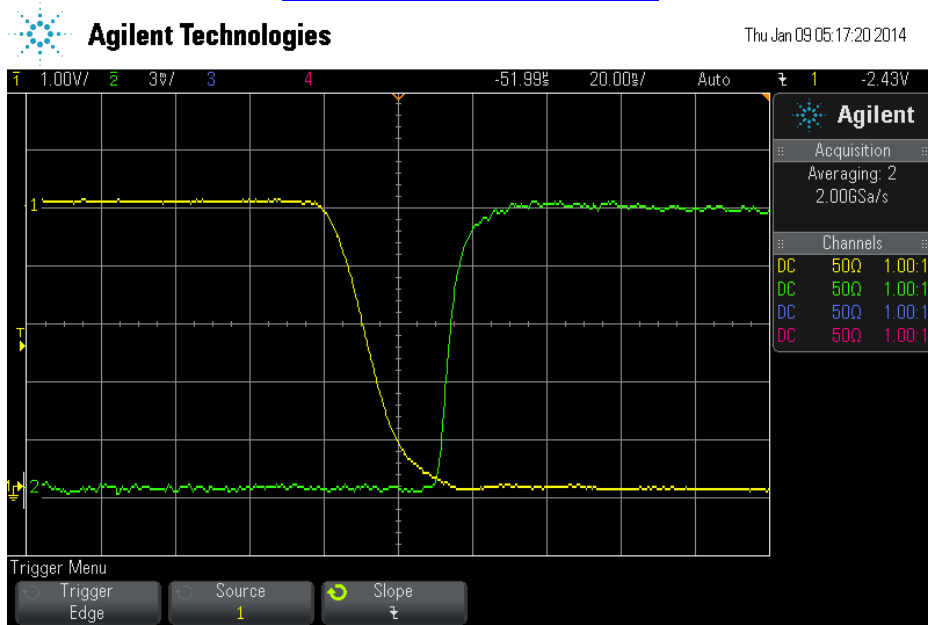




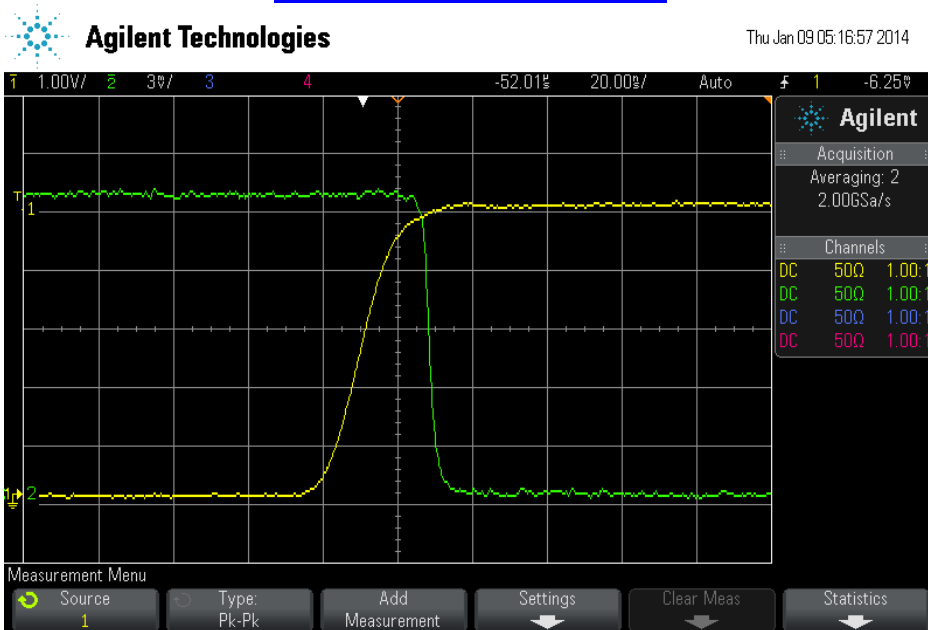
TYPICAL CHARACTERISTICS ON P6T-2G18G-55-T-512-SFF-LV-SP

Switching Speed

ON Delay – 20ns per Div.



OFF Delay – 20ns per Div.



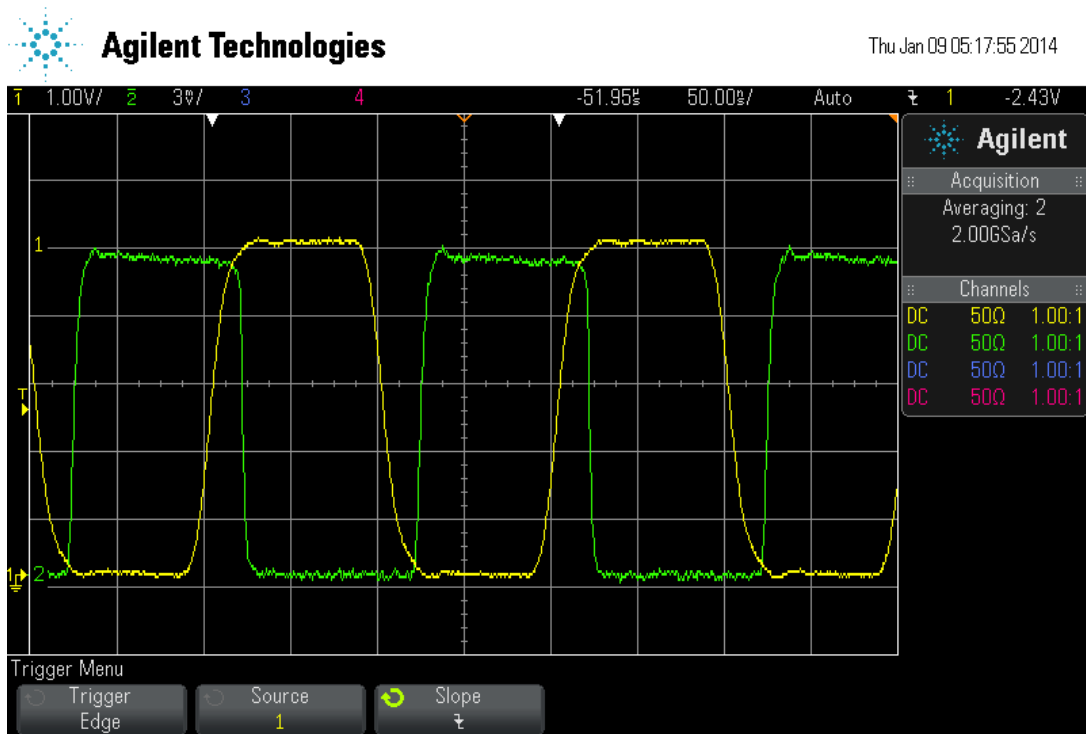
Green Trace: RF Signal
Yellow Trace: TTL Signal

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**TYPICAL CHARACTERISTICS
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Control Signal Pulsed at 5MHz



Green Trace: RF Signal
Yellow Trace: TTL Signal



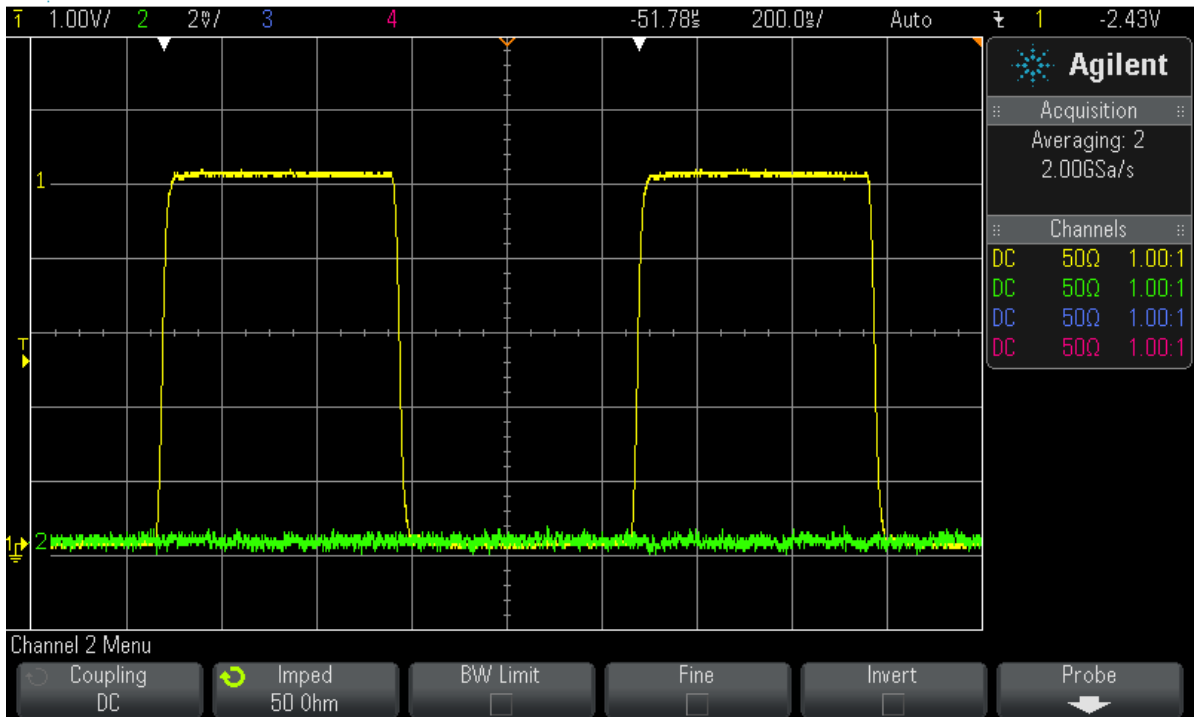
**TYPICAL CHARACTERISTICS
ON
P6T-2G18G-55-T-512-SFF-LV-SP**

Video Transients



Agilent Technologies

Thu Jan 09 05:20:02 2014



Green Trace: Video Transients
Yellow Trace: TTL Signal