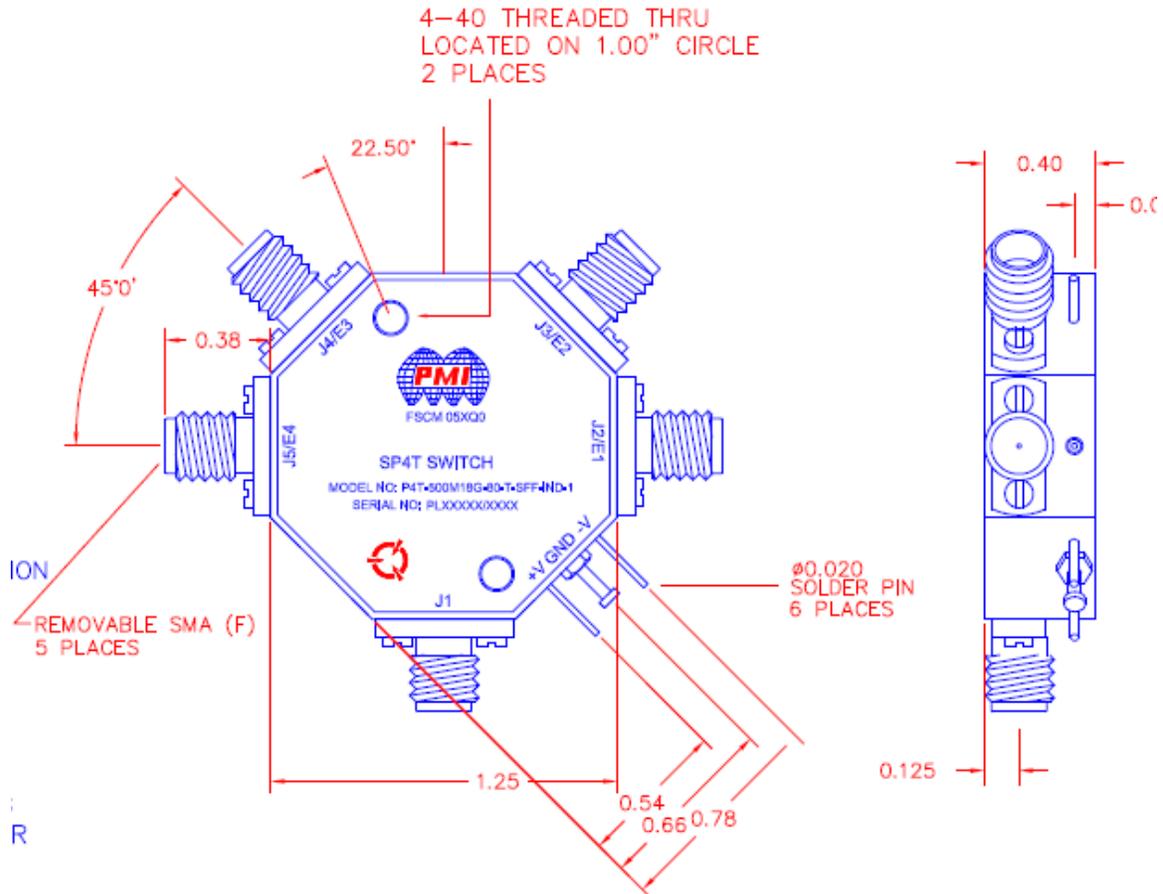




**Typical Characteristics
on
P4T-500M18G-80-T-SFF-IND-1**

PMI MODEL NUMBER: P4T-500M18G-80-T-SFF-IND-1 IS A 500MHz TO 18GHz, SINGLE POLE, FOUR THROW, ABSORPTIVE SWITCH. THIS SWITCH OFFERS 80dB OF PORT TO PORT ISOLATION, AND A MAXIMUM INSERTION LOSS OF 3.75 dB. IT HAS A SWITCHING SPEED OF 25ns WITH INDIVIDUAL TTL CONTROL. THE OPERATING POWER IS +20dBm CW AND THE VSWR IS 2:1 MAXIMUM.



April 1, 2024

Designed By: PMI Engineering



Typical Characteristics on P4T-500M18G-80-T-SFF-IND-1

DESCRIPTION

PMI MODEL NUMBER: P4T-500M18G-80-T-SFF-IND-1 IS A 500MHz TO 18GHz, SINGLE POLE, FOUR THROW, ABSORPTIVE SWITCH. THIS SWITCH OFFERS 80dB OF PORT TO PORT ISOLATION, AND A MAXIMUM INSERTION LOSS OF 3.75 dB. IT HAS A SWITCHING SPEED OF 25ns WITH INDIVIDUAL TTL CONTROL. THE OPERATING POWER IS +20dBm CW AND THE VSWR IS 2:1 MAXIMUM.

SPECIFICATIONS

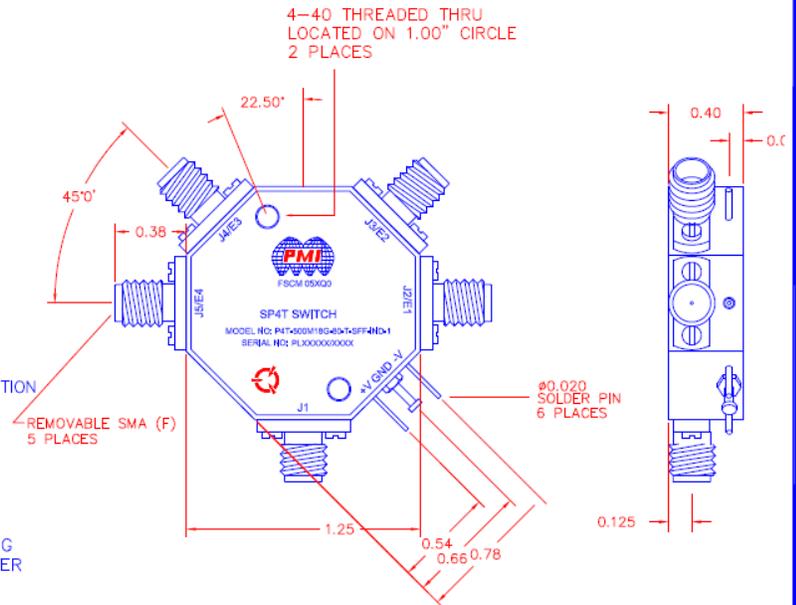
- FREQUENCY RANGE: _____ 500 MHz TO 18 GHz
- INSERTION LOSS: _____ 3.75 dB MAX
- ISOLATION: _____ 80 dB TYP
- VSWR: _____ 2.0: 1 MAX
- SWITCHING SPEED: _____ 50% TTL TO 10%/90% RF
25 ns TYP
- INPUT POWER: _____ +20 dBm CW
- SURVIVAL POWER: _____ +23 dBm CW
- CONTROL SIGNAL: _____ INDIVIDUAL TTL CONTROL
"0" = LOW LOSS & "1" = ISOLATION
- POWER SUPPLY: _____ +5 V @ 200 mA MAX
-5 V @ 100 mA MAX
- RF CONNECTORS: _____ SMA FEMALE
- CONTROL AND POWER: _____ FEEDTHRU - Ø0.020 TYP
- FINISH: _____ BLUE 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)
-55°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	01/08/15	
	A1	ECN # 15-0043	04/06/15	



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



ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
XXX ±0.000
X.XXX ±0.010

APPROVALS		DATE	TITLE			REV.
DRAWN	VR	01/08/15	PRODUCT FEATURE			A1
CHECKED			SIZE	FSCM NO.	DWG NO.	
ISSUED			A	05XQ0	27024547	
			SCALE	N: S	SHEET	1 OF 1

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



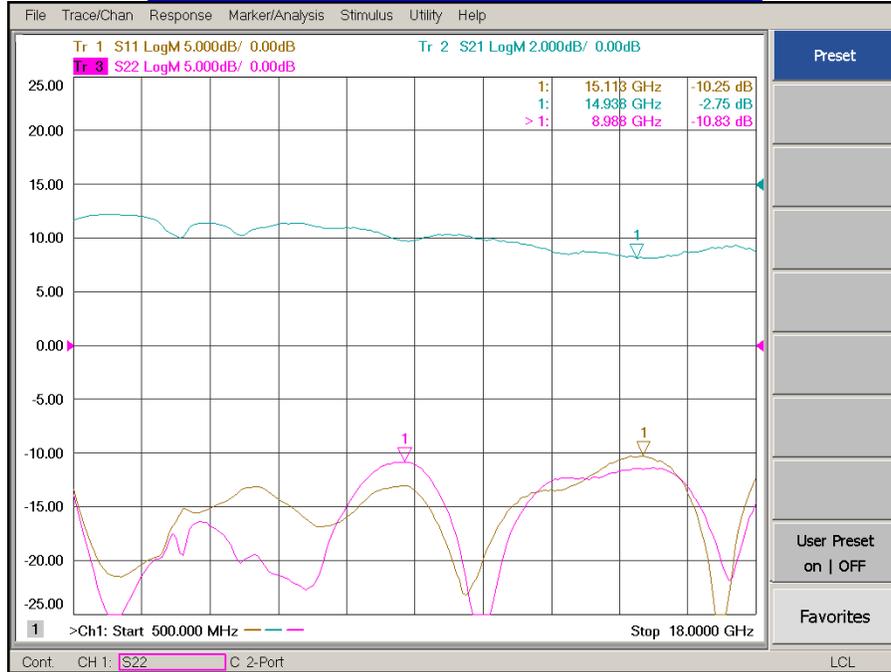
**Typical Characteristics
on
P4T-500M18G-80-T-SFF-IND-1**

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	500 MHz to 18 GHz	500 MHz to 18 GHz See Plot	
2	Insertion Loss:	3.75 dB Max	2.75dB See Plot	
3	Isolation:	80 dB Typ	81.70dB See Plot	
4	VSWR:	2.0:1 Max	1.89:1 See Plot	
5	Switching Speed:	50% TTL to 10%/90% RF 25ns Typ	30 ns See Plot	
6	Video Transients:	Not Specified	500mV Peak to Peak See Plot	
7	Input Power:	+20 dBm CW	+20 dBm CW	
8	Survival Power:	+23 dBm CW	+23 dBm CW	
9	Control:	Individual TTL Control "0" = Low Loss & "1" = Isolation	Pass	
10	Power Supply:	+5V @ 200 mA Max -5V @ 100 mA Max	+5V @ 125mA -5V @ 90mA	



Typical Characteristics on P4T-500M18G-80-T-SFF-IND-1

(J1 – J2) Insertion Loss and Return Loss



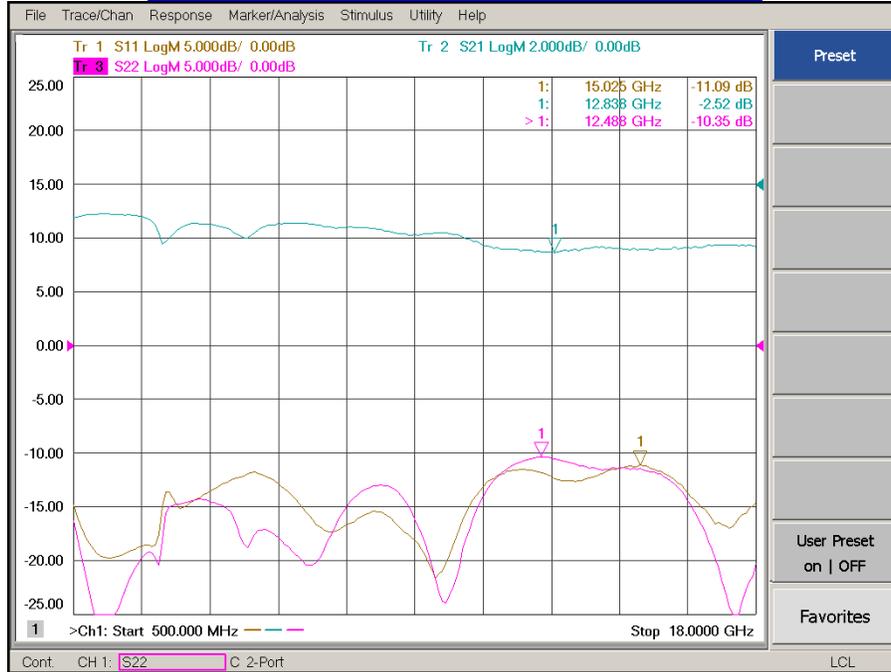
(J1 – J3) Insertion Loss and Return Loss



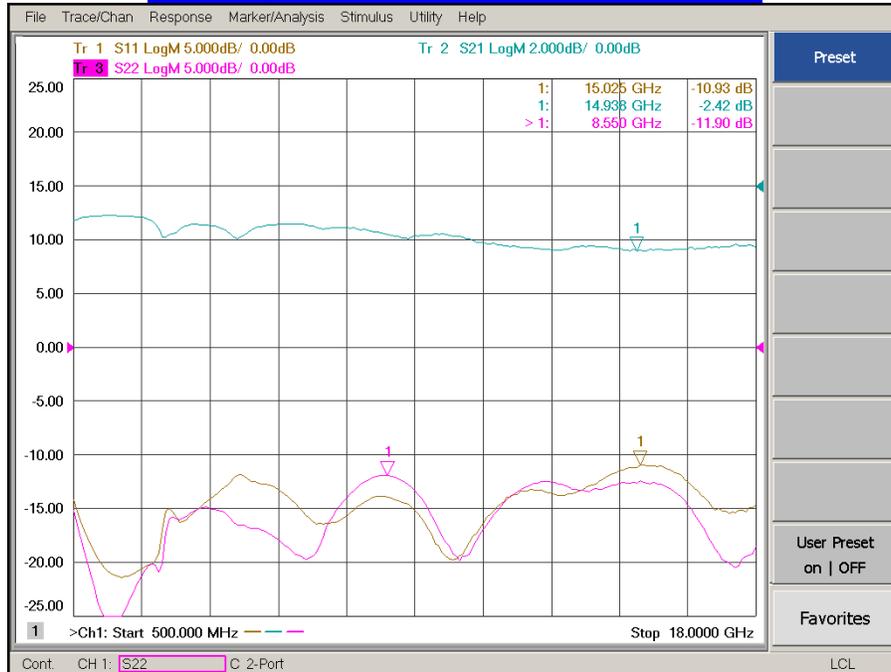


Typical Characteristics on P4T-500M18G-80-T-SFF-IND-1

(J1 – J4) Insertion Loss and Return Loss



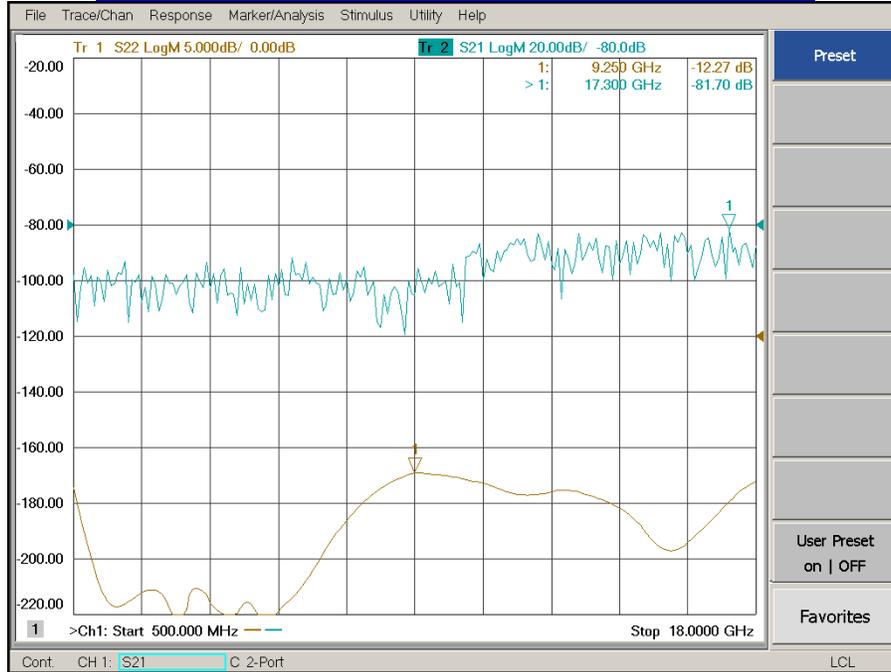
(J1 – J5) Insertion Loss and Return Loss



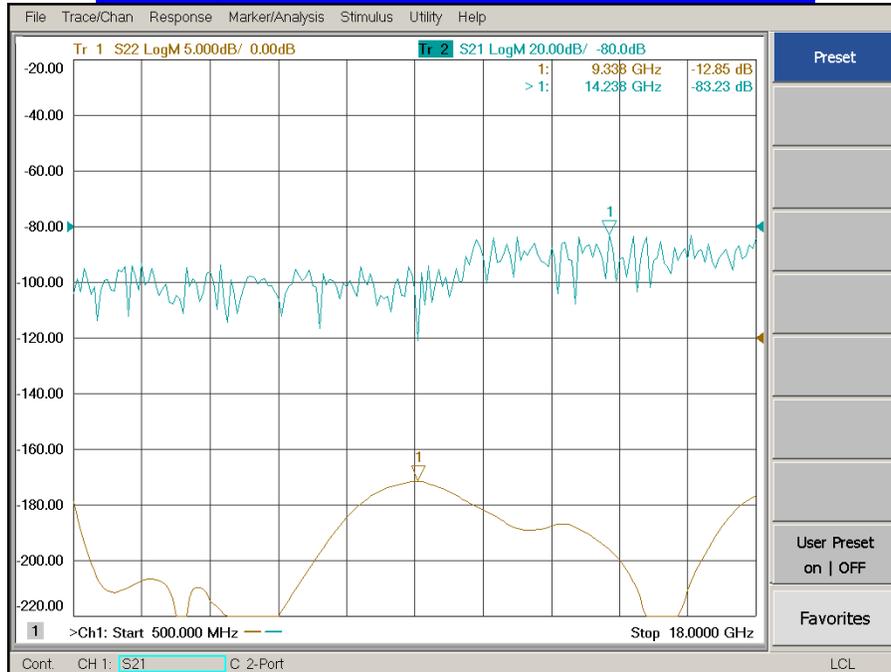


Typical Characteristics on P4T-500M18G-80-T-SFF-IND-1

(J1 – J2) Isolation and Termination Return Loss



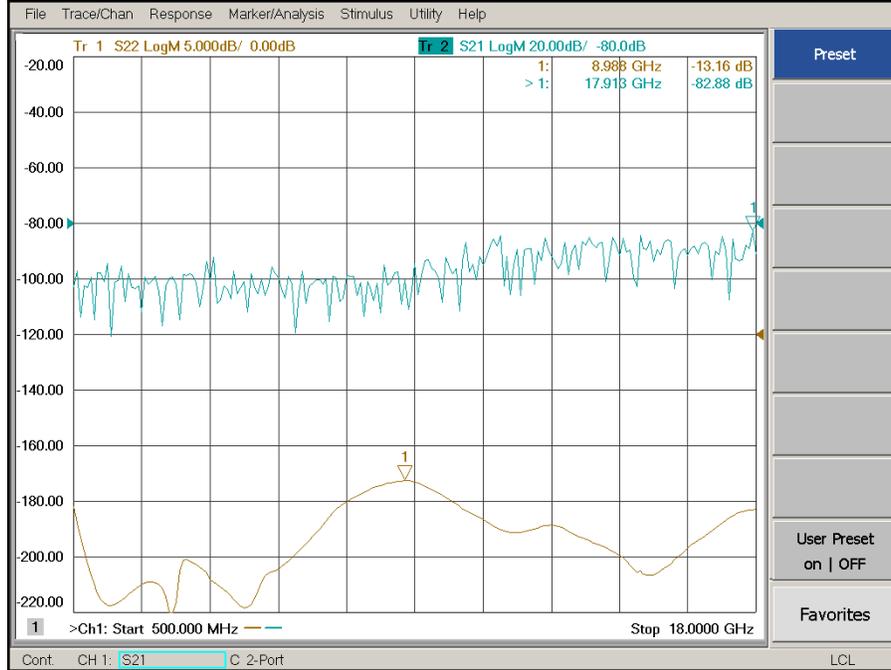
(J1 – J3) Isolation and Termination Return Loss



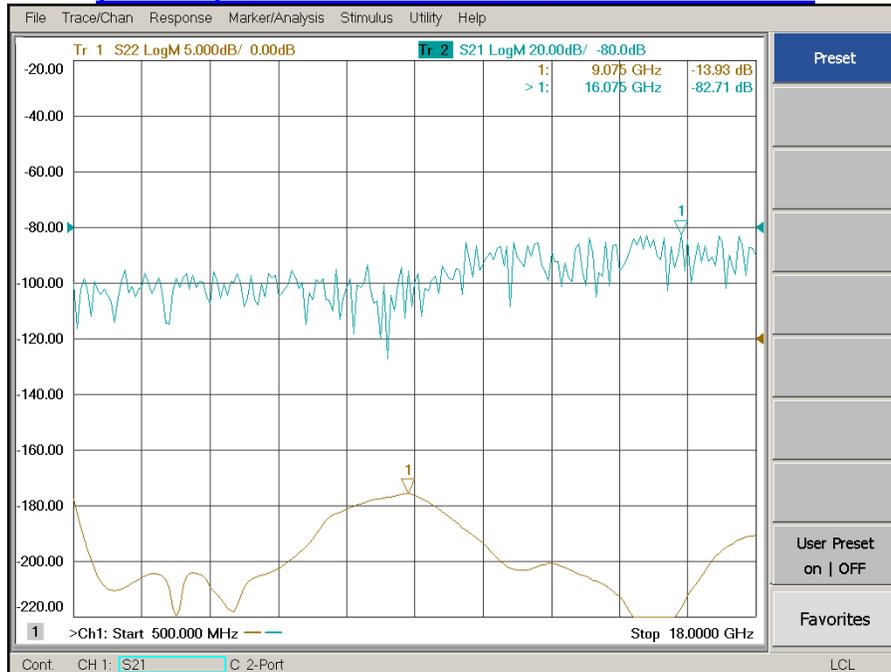


Typical Characteristics on P4T-500M18G-80-T-SFF-IND-1

(J1 – J4) Isolation and Termination Return Loss



(J1 – J5) Isolation and Termination Return Loss

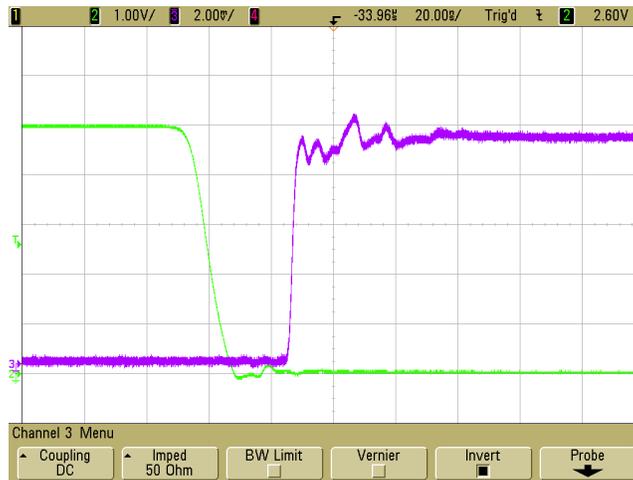




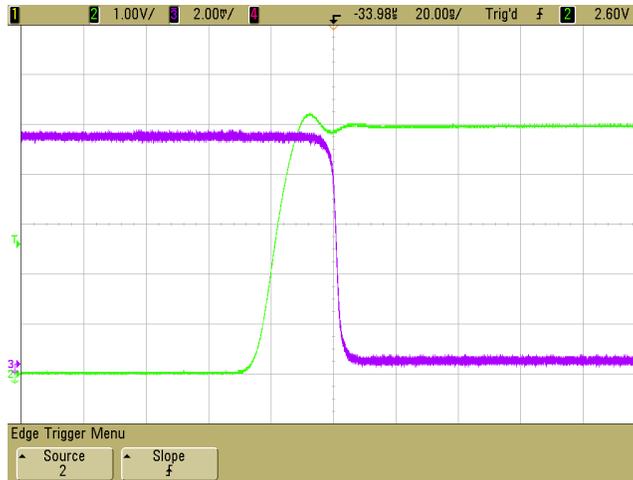
**Typical Characteristics
on
P4T-500M18G-80-T-SFF-IND-1**

Switching Speed

ON Delay – 20ns per Div.



OFF Delay – 20ns per Div.



Green Trace: TTL Signal

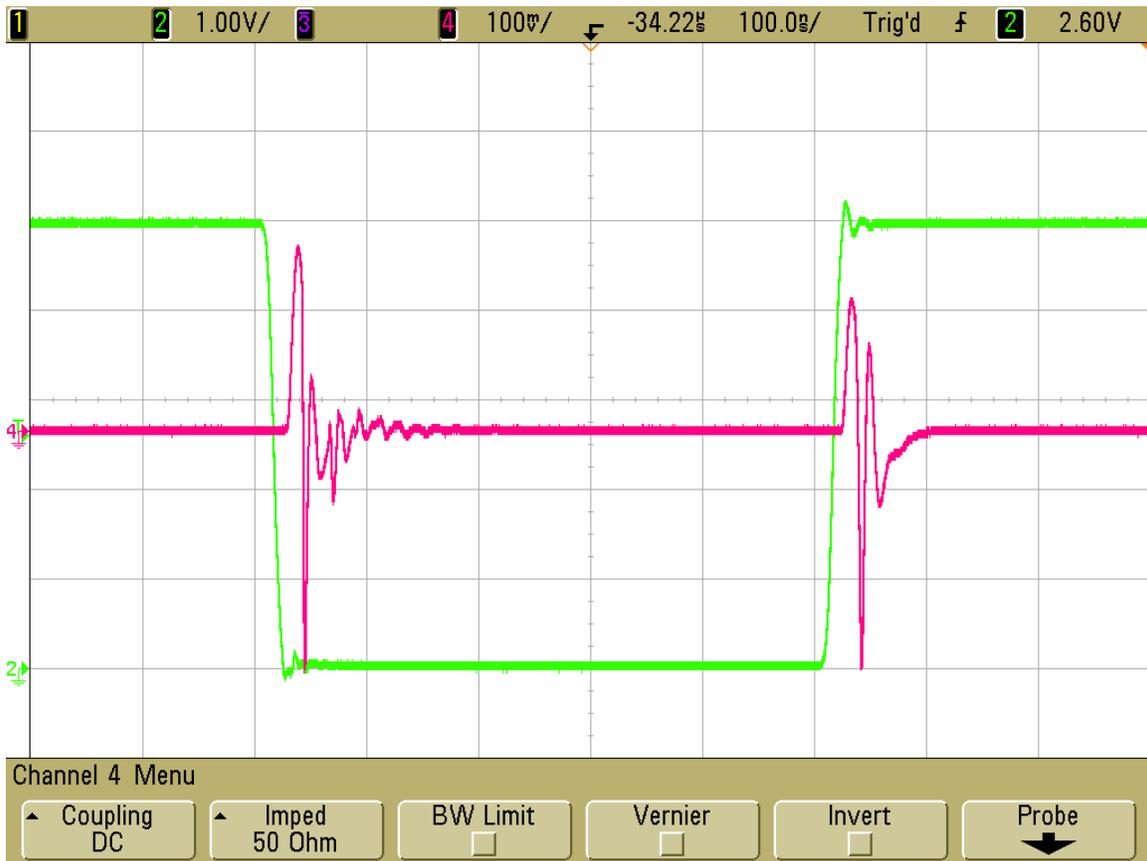
Magenta Trace: RF Signal



Typical Characteristics
on
P4T-500M18G-80-T-SFF-IND-1

Video Transients

100ns per Div.



Green Trace: TTL Signal

Magenta Trace: Video Transients