



**TYPICAL CHARACTERISTICS
ON
P3T-2G18G-60-T-SFF-REVB-SP**

PMI MODEL: P3T-2G18G-60-T-SFF-REVB-SP IS A SINGLE POLE, THREE THROW, NON-REFLECTIVE SWITCH DESIGNED TO OPERATE OVER THE 2.0 GHz TO 18.0 GHz FREQUENCY RANGE. THIS MODEL IS DESIGNED TO MAINTAIN LOW INSERTION LOSS, HIGH ISOLATION, AND FAST SWITCHING SPEED. THIS MODEL OFFERS LOW VIDEO TRANSIENT PERFORMANCE OF 20 mv MAXIMUM.



March 5, 2018

DESIGNED BY: PMI ENGINEERING

TESTED & REPORTED BY: Kevin Mansfield



**TYPICAL CHARACTERISTICS
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TABLE OF CONTENTS

Outline Drawing.....Page 3

Summary Test Data.....Page 4

S-Parameter Data Insertion Loss and VSWR.....Page 5

S-Parameter Data IsolationPage 6

Switching SpeedPage 7

Video TransientsPage 8



TYPICAL CHARACTERISTICS ON P3T-2G18G-60-T-SFF-REVB-SP

OUTLINE DRAWING

DESCRIPTION:

PLANAR MONOLITHICS INDUSTRIES' MODEL NUMBER P3T-2G18G-60-T-SFF-REVB-SP IS A SINGLE POLE, THREE THROW NON-REFLECTIVE SWITCH DESIGNED TO OPERATE OVER THE 2.0 GHz TO 18.0 GHz FREQUENCY RANGE. THIS MODEL IS DESIGNED TO MAINTAIN LOW INSERTION LOSS, HIGH ISOLATION, AND FAST SWITCHING SPEED. THIS MODEL OFFERS LOW VIDEO TRANSIENT PERFORMANCE OF 20 nsec MAXIMUM.

SPECIFICATIONS:

- FREQUENCY RANGE: 2.0 GHz TO 18.0 GHz
- INSERTION LOSS: 3.2 dB MAXIMUM
- VSWR (IN/OUT): 2.0 : 1 MAXIMUM
- INPUT POWER: 200 mW CW MAXIMUM
- ISOLATION: 60 dB MINIMUM
- SWITCHING SPEED: ON/OFF - 50 ns MAXIMUM
- VIDEO LEAKAGE: 20 mV @ 300 MHz BW MAXIMUM (1) (2)
- CONTROL: TTL LOGIC "0" = "LOW LOSS"
TTL LOGIC "1" = "ISOLATION"
PINS E1, E2, & E3 ARE PULLED LOW "0"
*SURGE PROTECTION INCLUDED ON TTL LINES
- DC VOLTAGE: +5 VDC @ 110 ma TYPICAL
-12 VDC @ 90 ma TYPICAL
- CONNECTORS: SMA FEMALE (FIELD REMOVABLE)
- POWER AND CONTROL: EMI FILTERED SOLDER PINS
- SIZE: 1.50 X 1.00 X 0.50
- SEALING: UNLESS OTHERWISE SPECIFIED, PMI WILL SUPPLY EPOXY SEAL
- 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.

(1) AFTER 50 nsec NO VIDEO TRANSIENT WILL BE PRESENT
(2) VIDEO FILTER IS REQUIRED ON INPUT AND OUTPUT PORTS

ENVIRONMENTAL RATINGS:

- TEMPERATURE: -54°C TO +85°C (OPERATING)
-85°C TO +125°C (STORAGE)
- HUMIDITY: MIL-STD-202F, METHOD 1008 COND. B
- SHOCK: MIL-STD-202F, METHOD 2136 COND. B
- VIBRATION: MIL-STD-202F, METHOD 204D COND. G
- SALT FOG: MIL-STD-202F, METHOD 101D+EST COND. B
- FUNGUS: MIL-STD-810F, METHOD 508.5

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

PMI CONFIDENTIAL AND PROPRIETARY

APPROVALS	DATE	TITLE
DESIGNED BY M. HANKEN	6/13/2011	ASSEMBLY DRAWING
CHECKED BY		P3T-2G18G-60-T-SFF-REVB-SP
DESIGNED BY		REV: 05/00
CHECKED BY		26932780
DATE		SCALE 2:1
		SHEET 1 OF 1

Page 3 of 9

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TEST DATA SUMMARY

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	TEST RESULT	QA QC
1	Frequency Range:	2.0 GHz to 18.0 GHz	2.0 GHz to 18.0 GHz	Pass	
2	Insertion Loss:	3.2 dB Max.	3.07 dB	Pass See Plot	
3	VSWR:	2.0:1 Max.	1.93:1	Pass See Plot	
4	Input Power:	200 mW CW Max.	200 mW CW	Pass	
5	Isolation:	60 dB Min.	65 dB	Pass See Plot	
6	Switching Speed:	50 ns Max.	48.5 ns	Pass See Plots	
7	Video Leakage	20mV @ 350 MHz BW Max.	<10 mV	Pass See Plot	
8	Surge Protection (+V) TTL Control "1"	24 mA Max.	24 mA	Pass	

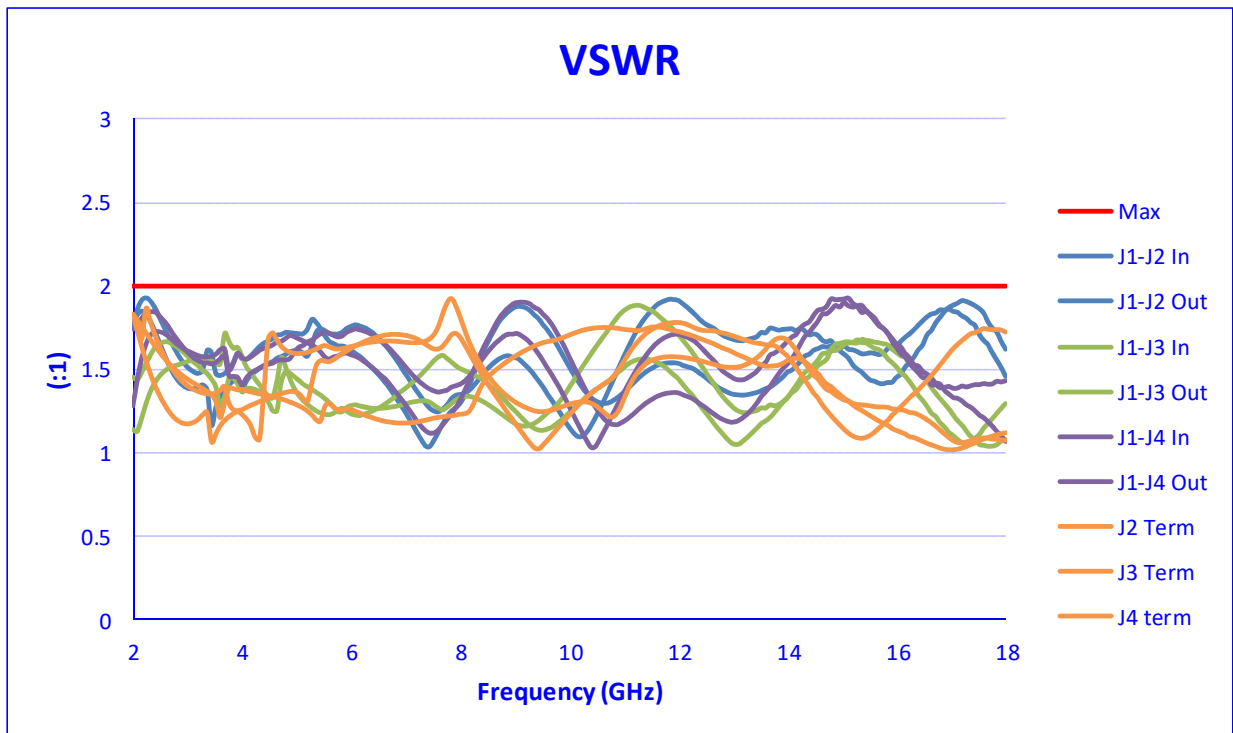
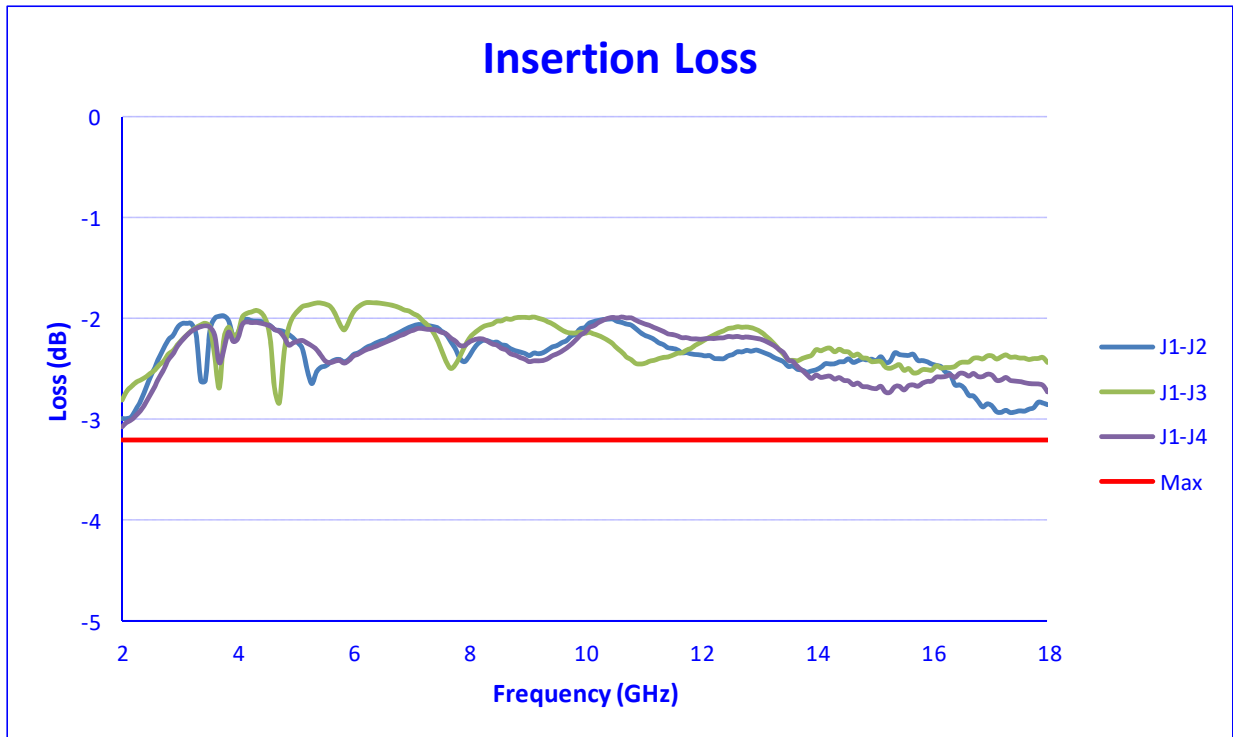


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9	Surge Protection (-V) TTL Control "0"	24 mA Max.	24 mA	Pass	
10	DC Voltage:	+5 VDC @ 110 mA Typ. -12 VDC @ 90 mA Typ.	11 mA 36 Ma	Pass	

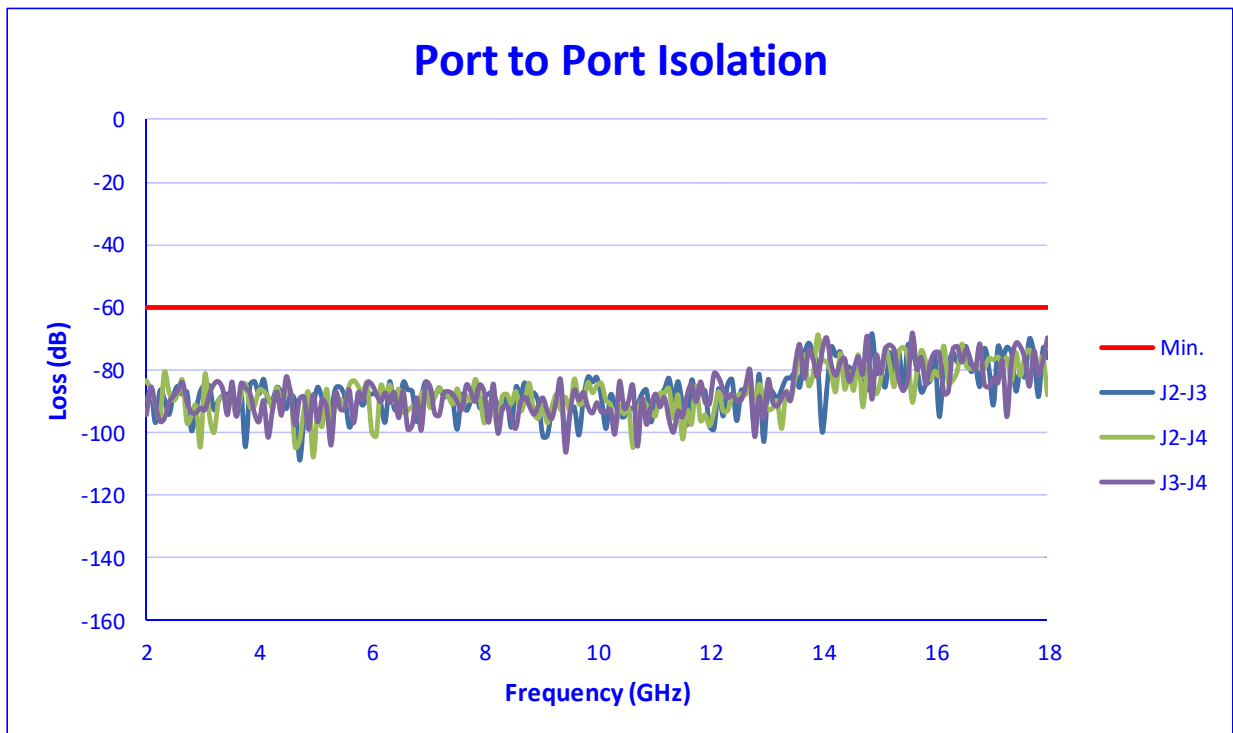
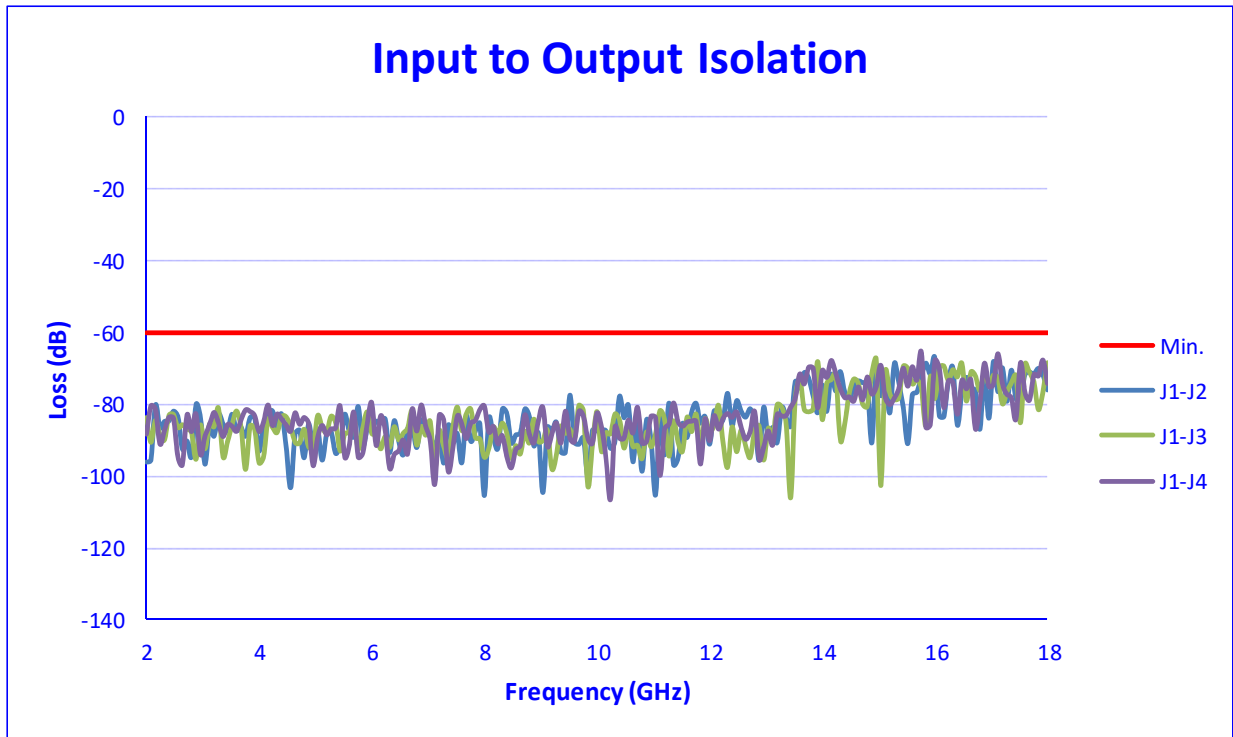


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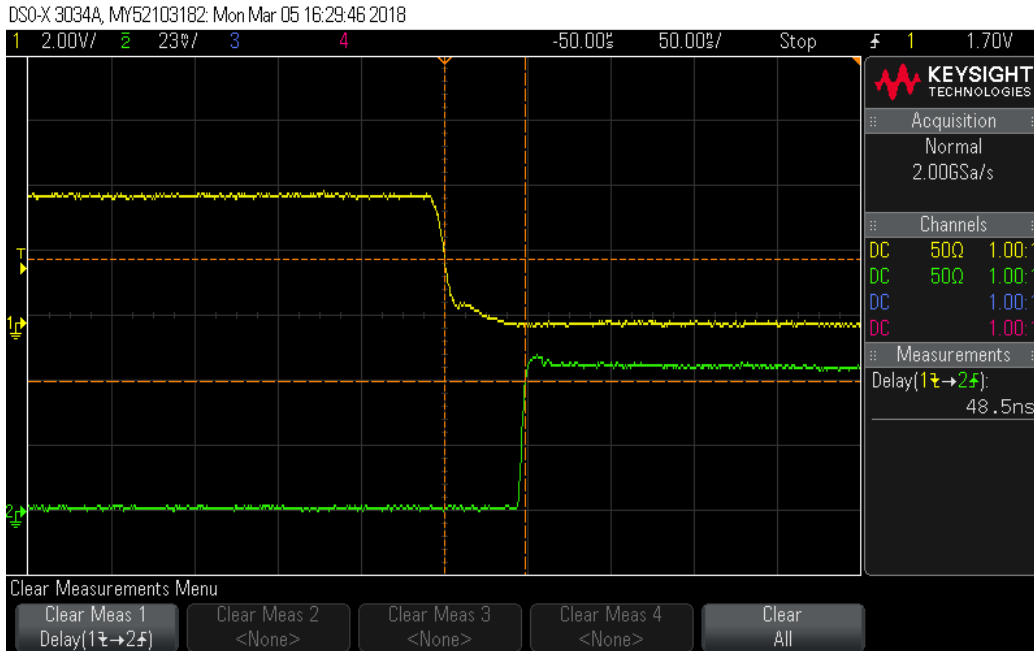
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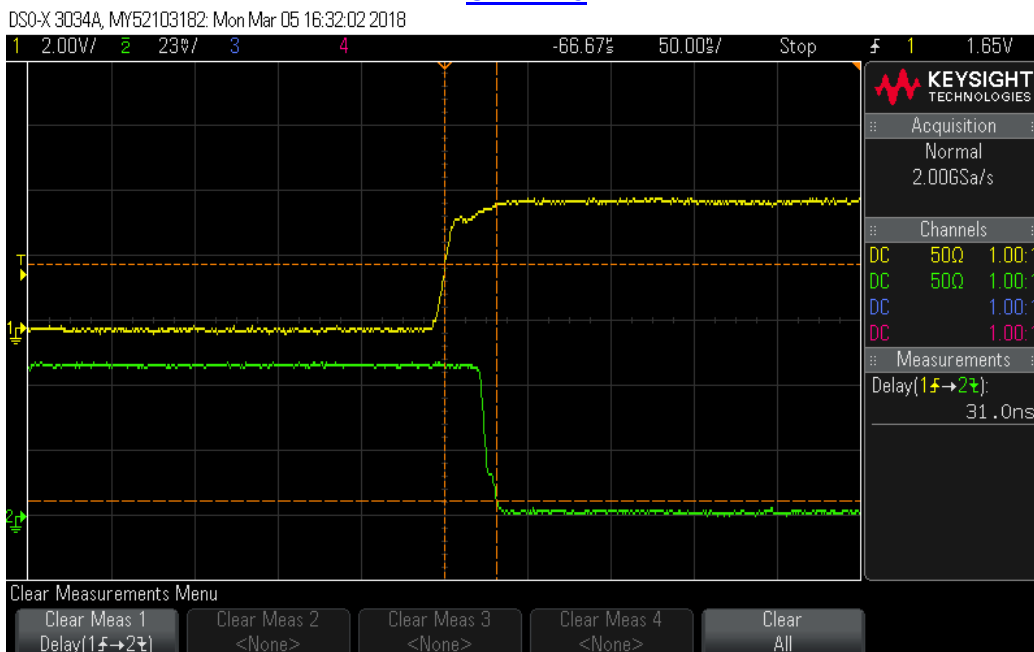


TYPICAL CHARACTERISTICS ON P3T-2G18G-60-T-SFF-REVB-SP

Switching Speed OFF Time



ON Time

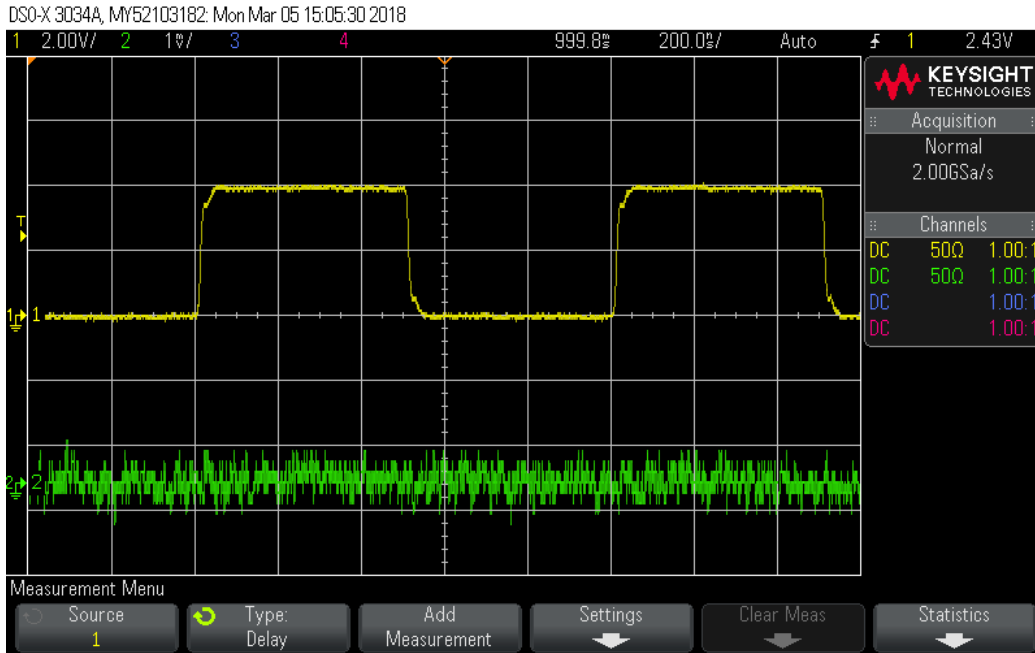


GREEN TRACE: RF
YELLOW TRACE: TTL



**TYPICAL CHARACTERISTICS
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Video Transients



GREEN TRACE: RF
YELLOW TRACE: TTL