



# Planar Monolithics Industries, Inc.

RF & Microwave Components and Modules to 40GHz

ISO9001:2008 Certified

May 21, 2014

## 10kHz to 20.0GHz Reflective SPDT Switch with Input P0.1dB of 23dBm PMI Model No. P2T-10K20G-5-R-20-SFF



PMI Model No. P2T-10K20G-5-R-20-SFF is a single pole, two throw, reflective switch operating over a frequency range of 10kHz to 20.0GHz. This unit has a max insertion loss of 5.0dB, minimum isolation of 20dB and a switching speed of 200ns max. This unit was designed to have a minimum P0.1dB of +23dBm. This switch operates on +5VDC with only 32mA of current draw and is supplied with SMA(F) connectors.

Frequency	10kHz to 20.0GHz
Isolation	20dB min
Insertion Loss	5.0dB max, 4.0dB typ
VSWR In/Out	2.0:1 max.
Switching Speed	200nsec max., 150nsec typ
DC Voltage and Current	+5VDC @ 32mA typ
Control Signal	TTL "0" = J1-J2 "Low Loss" "1" = J1-J3 "Low Loss"
Connectors	SMA (F)
Size	1.2" x 1.0" x 0.5"

Temperature:	-54°C to +100 °C Operating -55°C to +125 °C Non-Operating
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

## PLANAR MONOLITHICS INDUSTRIES, INC.

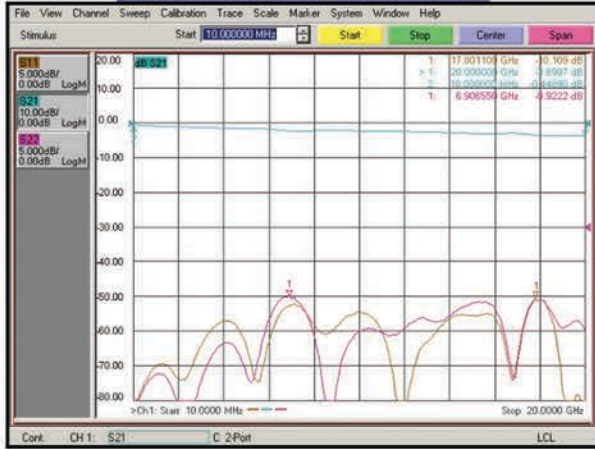
7311-F Grove Road, Frederick,  
Maryland 21704 USA |  
Tel: 301-662-5019 | Fax: 301-662-1731

4921 Roberts J. Mathews Parkway  
Suite 1 El Dorado Hills, CA 95762 USA  
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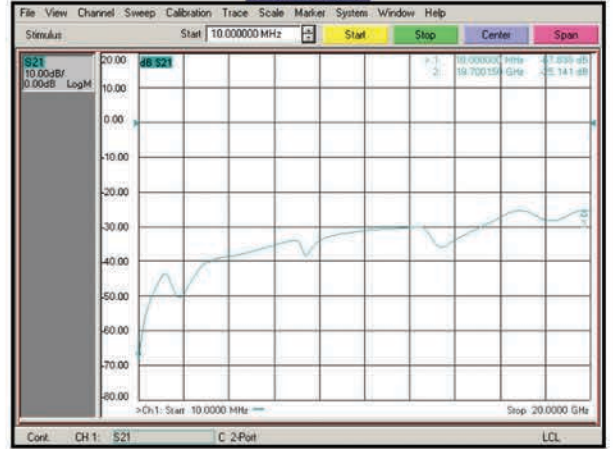
Email: [sales@pmi-rf.com](mailto:sales@pmi-rf.com) | [www.pmi-rf.com](http://www.pmi-rf.com)

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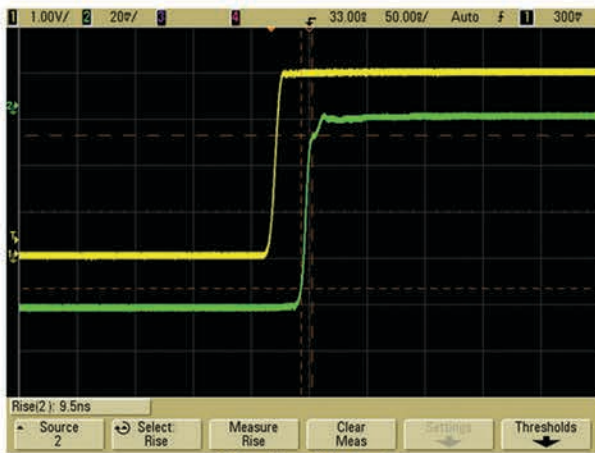
**(J1-J2) Insertion Loss and Return Loss**



**(J2) Isolation**



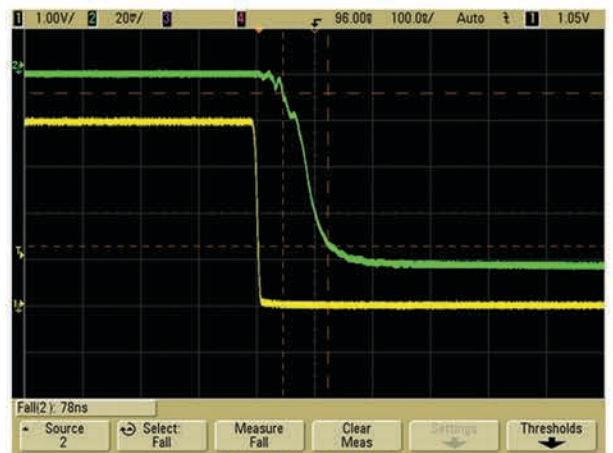
**Switching Speed (50 KHz @ 50% Duty cycle)**  
**OFF Delay\***  
 50ns per Div.



Yellow Trace: TTL Signal  
 Green Trace: RF Signal

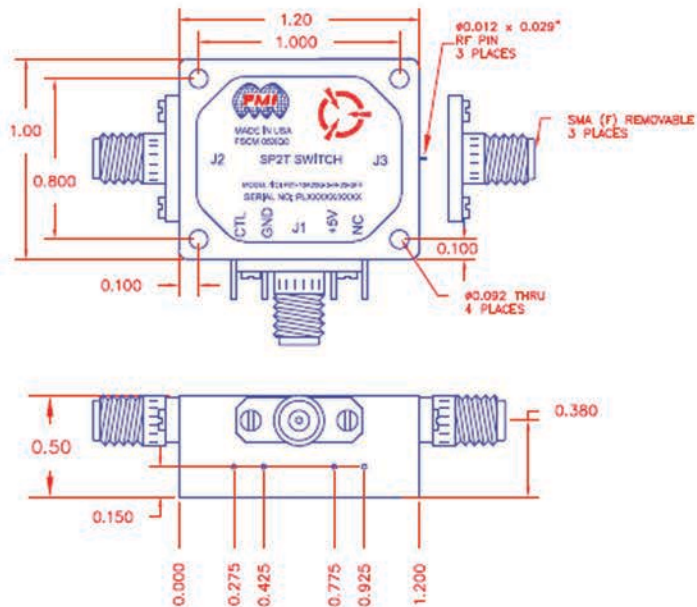
Switching speed measured using a Detector (Green Trace Inverted)

**Switching Speed (50 KHz @ 50% Duty cycle)**  
**ON Delay\***  
 100ns per Div.



Yellow Trace: TTL Signal  
 Green Trace: RF Signal

Switching speed measured using a Detector (Green Trace Inverted)



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