



Typical Characteristics on PS-90-1020-101F-512

THE PMI MODEL PS90-1020-101F-512, IS A 0 TO 180 DEGREE BI-PHASE MODULATOR/PHASE SHIFTER OPERATING OVER A FREQUENCY RANGE OF 1.0 TO 1.12 GHz WITH A MAXIMUM INSERTION LOSS OF 2.0dB AND VSWR IS BETTER THAN 1.7:1.



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PMI Engineering

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DESCRIPTION

THE PMI MODEL PS-90-1020-101F-512, IS A 0 TO 180 DEGREE BI-PHASE MODULATOR/PHASE SHIFTER OPERATING OVER A FREQUENCY RANGE OF 1.0 TO 1.12GHz WITH A MAXIMUM INSERTION LOSS OF 2.0dB AND VSWR IS BETTER THAN 1.7:1.

SPECIFICATIONS

- FREQUENCY RANGE:..... 1.0 TO 1.12GHz
- VSWR: BETTER THAN 1.7:1
- INSERTION LOSS:..... 2.0dB MAX
- SWITCHING SPEED:..... 30ns MAX
- SWITCHING RATE:..... NOT LESS THAN 4 MHz
- SWITCHING TYPE:..... HOT (RF PRESENT DURING SWITCHING AS IT IS FOR CW OPERATION)
- RF INPUT POWER:..... +20 dBm CW
- PHASE STATES:..... 0 DEGREE/180 DEGREE
- RF IN/OUT INTERFACE:..... SMA (F)
- CONTROL:..... TTL
- POWER SUPPLY
 - +V:..... +5V ● TBD
 - V:..... -12V ● TBD
- SIZE:..... 1.00" x 1.00" x 0.50"
- WEIGHT:..... ≤2.0 OZ.
- 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.

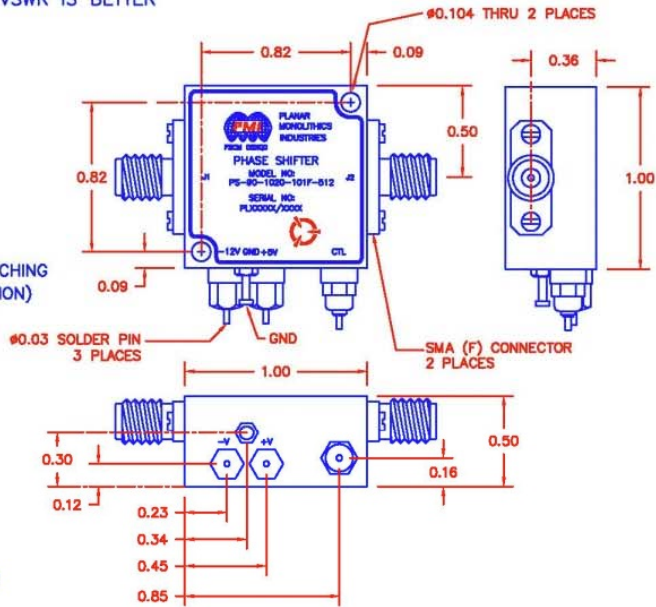
ENVIRONMENTAL RATINGS

- TEMPERATURE:.....-40°C TO +71°C (OPERATING)
-40°C TO +90°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

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

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	01/05/12	



PMI CONFIDENTIAL AND PROPRIETARY

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APPROVALS		DATE	TITLE		REV.
DRAWN	<i>SP</i>	01/04/12	PRODUCT FEATURE		A1
CHECKED			PS-90-1020-101F-512		
ISSUED			SIZE	FRM NO.	DRG NO.
			A	05XQ0	27016041
			SCALE	N:S	SHEET 1 OF 1



Typical Characteristics on PS-90-1020-101F-512

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	REMARKS QA/QC
1	Frequency Range:	1.0 TO 1.12 GHz	1.0 TO 1.12 GHz SEE PLOTS	
2	VSWR	Better than 1.7:1	1.47:1 SEE PLOTS	
3	Insertion Loss:	2.0dB Max	1.74dB SEE PLOTS	
4	Switching Speed:	30 ns Max (4 MHz Min Switching Rate)	6ns Min. 15ns Max. SEE PLOTS	
5	Phase States:	0 Degree (TTL "0") 180 Degree (TTL "1")	PASS SEE PLOTS	
6	Power Supply:	+5V -12V	+5V – 30mA -12V – 2mA	



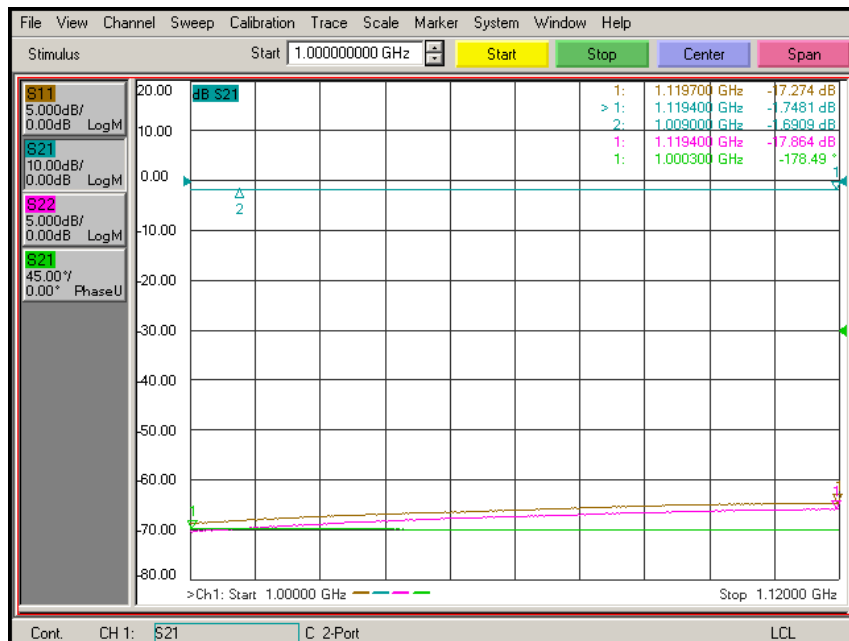
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Insertion Loss / Return Loss / Phase

0 DEG. TTL "0"



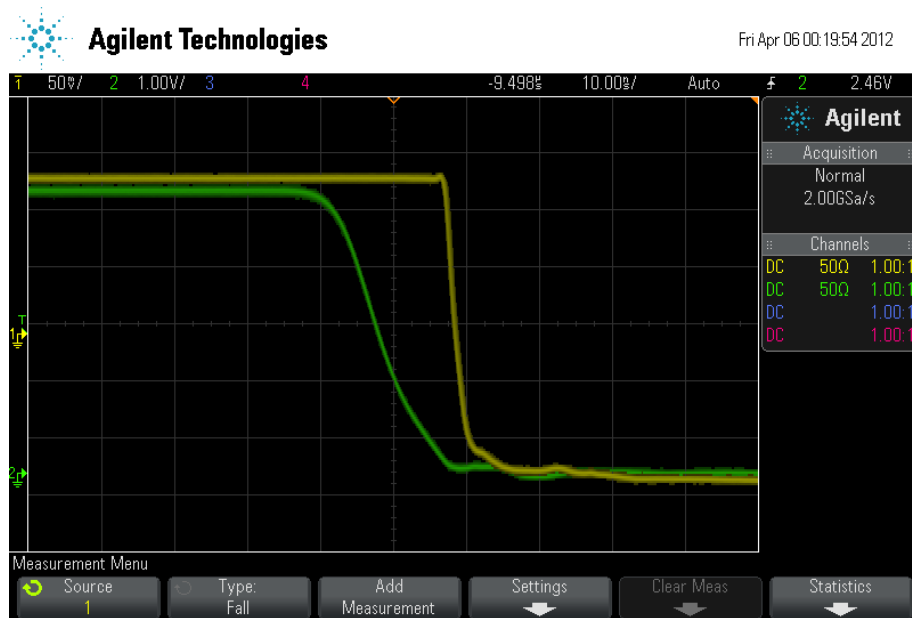
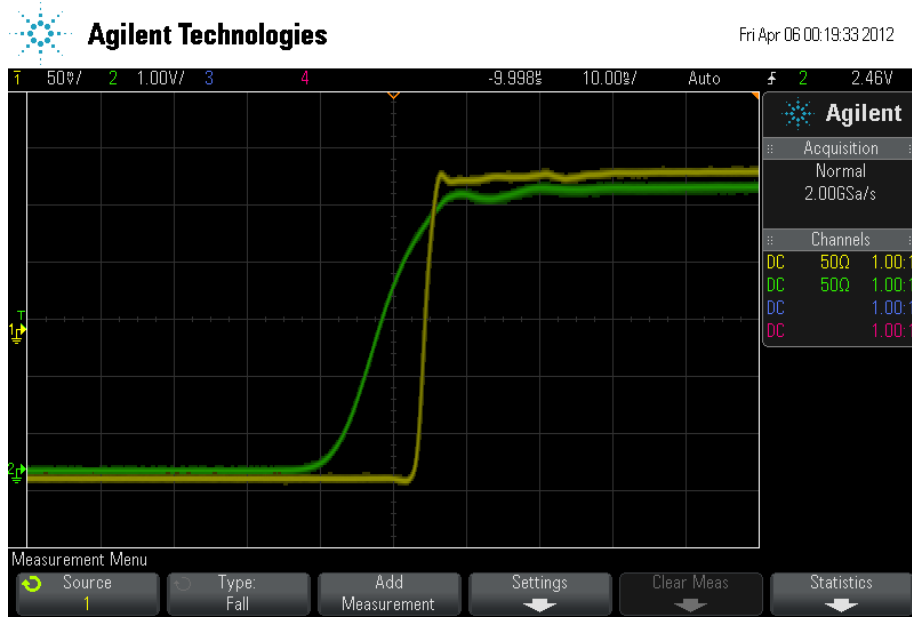
180 DEG. TTL "1"





Typical Characteristics on PS-90-1020-101F-512

Typical Switching Speed



Green Trace: TTL Signal

Yellow Trace: RF Signal