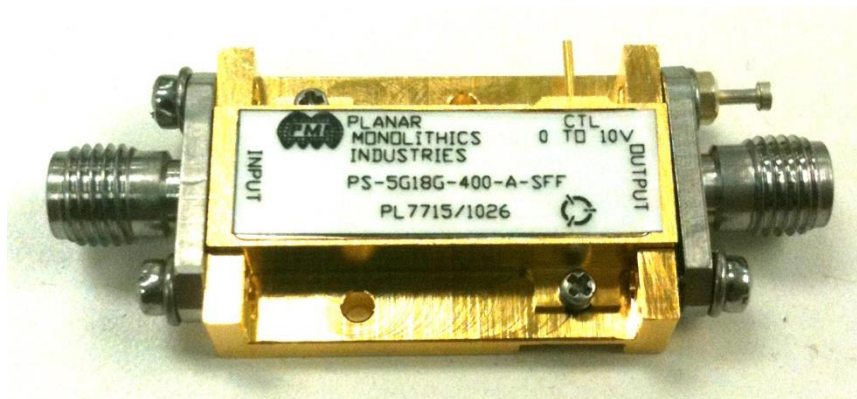




Typical Characteristics on PS-5G18G-400-A-SFF

**PMI MODEL NUMBER PS-5G18G-400-A-SFF IS AN ANALOG
CONTROLLED PHASE SHIFTER THAT OPERATES OVER THE
5.0 TO 18.0GHZ FREQUENCY RANGE.**



January 27, 2014
Designed by: Kevin Mason
Reported by: Kevin Mason



Typical Characteristics on PS-5G18G-400-A-SFF

Product Feature

REVISIONS		DATE	APPROVED
DATE	DESCRIPTION		
A	ORIGINAL RELEASE	04/14/00	

Description:
Model Number: PS-5G18G-400-A-SFF is a 5 - 18 GHz Analog Phase Shifter. This phase shifter is supplied in our standard PE2 housing that can be used as a SMA connectorized or a surface mount component.

This model provides the following performance. Data is available upon request.

Specifications:

Frequency Range:	5 to 18 GHz
Phase Shift Range:	180° Min, 400° Typ
5 - 10 GHz	135° Min, 200° Typ
10 - 13 GHz	45° Min, 120° Typ
13 - 18 GHz	
Insertion Loss:	5 - 10 GHz 10 - 18 GHz
Return Loss (In/Out):	7 dB Max, 4 dB Typ
Control Voltage Range:	0 - 10 VDC
Modulation Bandwidth:	50 MHz Typ
Phase Voltage Sensitivity:	40° / V Typ
Insertion Phase Temp Sensitivity:	0.5° / V Typ
Absolute Maximum Ratings:	
Control Voltage:	+11 VDC
Reverse Current:	5 mA
Input Power:	+30 dbm CW

Available Options:
Various Package Types
Various Connector Types
Hermetic Sealing
MIL-STD-883 Screening Available

Environmental Ratings:
Temperature: -55 to +125 Deg. C (Operating)
Humidity: MIL-STD-202F, METHOD 1038 COND B
Shock: MIL-STD-202F, METHOD 2138 COND B
Altitude: MIL-STD-202F, METHOD 1002 COND B
Temperature Cycle: MIL-STD-202F, METHOD 1070 COND A

Note: The above specifications are subject to change or revision.

PE2 HOUSING WITH CARRIER

PE2 HOUSING WITHOUT CARRIER (SURFACE MOUNT)

CONFIDENTIAL & 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 9001:2000 CERTIFIED

APPROVED		DATE	SIZE	FORM NO.	REV.
DESIGN	DPD	6/11/10	A	05X00	2701.3221
ISSUED			A		1 OF 1

PRODUCT FEATURE

PS-5G18G-400-A-SFF

SCALE: N.P.S.



Typical Characteristics on PS-5G18G-400-A-SFF

SUMMARY TEST DATA ON PHASE SHIFTER

Customer :
Job No :
Model No : PS-5G18G-400-A-SFF
Serial No :

Tested By : Kevin Mason
Temperature : +25°C
Date : 1/27/2014

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
1	Frequency Range:	5 – 18 GHz	Pass	
2	Phase Shift Range:	5–10 GHz:180° Min, 400° Typ 10–13 GHz:135° Min, 200° Typ 13-18 GHz:45° Min, 120° Typ	Pass	
3	Insertion Loss:	5–10 GHz:12 dB Max,8 dB Typ 10–18 GHz:7 dB Max,4 dB Typ	Pass	
4	Return Loss (In/Out):	8 dB Typ	Pass	
5	Control Voltage Range:	0 to +10 VDC DO NOT EXCEED +10VDC	Pass	
6	Modulation Bandwidth:	50 MHz Typ	Pass	
7	Phase Voltage Sensitivity:	40° / V Typ	Pass	
8	Maximum RF Input:	+30dBm CW	Pass	

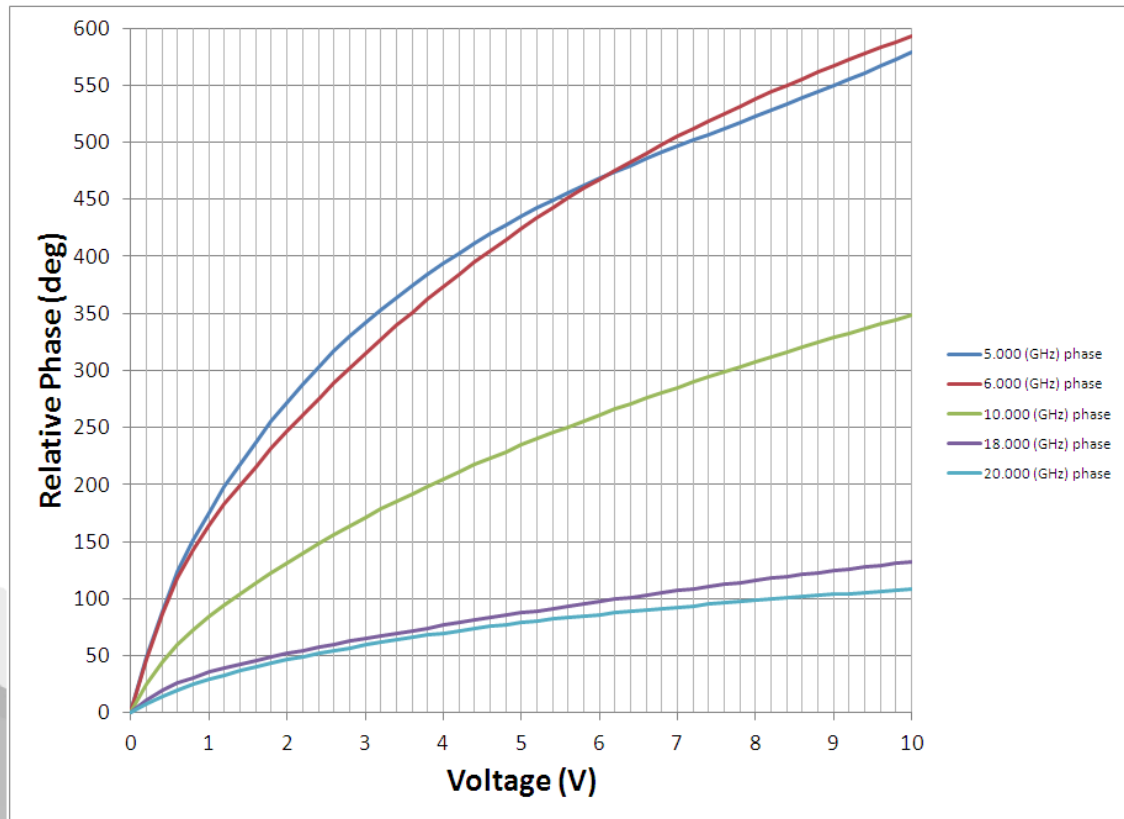
Production Manager Approval: _____ Date:

QA/QC Approval: _____ Date:



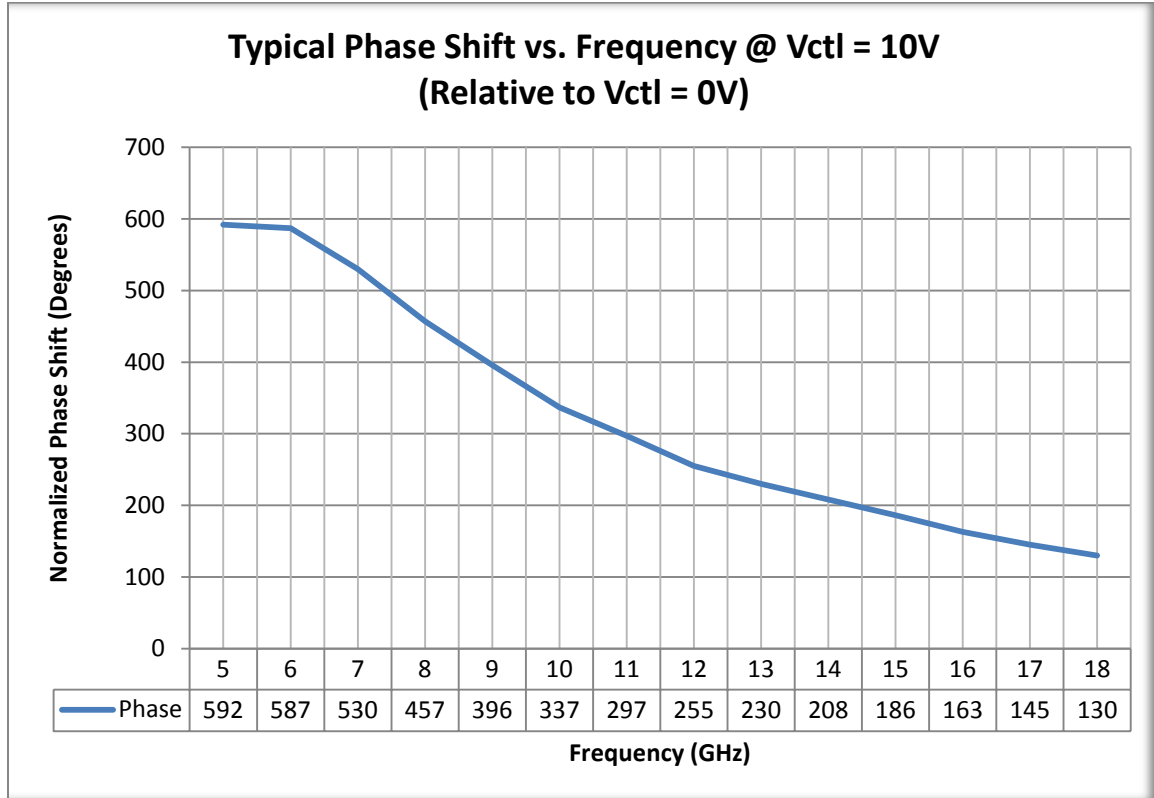
Typical Characteristics on PS-5G18G-400-A-SFF

Phase Shift Response





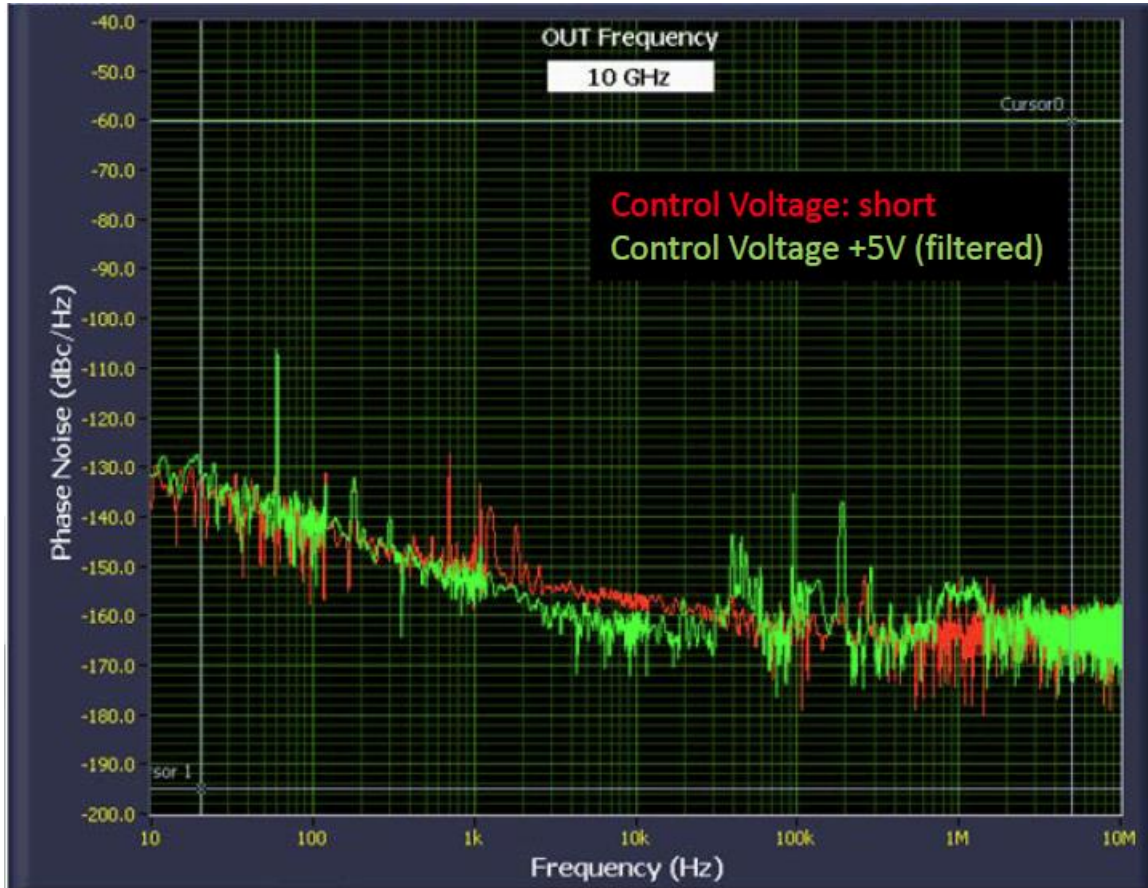
Typical Characteristics on PS-5G18G-400-A-SFF





Typical Characteristics on PS-5G18G-400-A-SFF

Phase Noise Plot

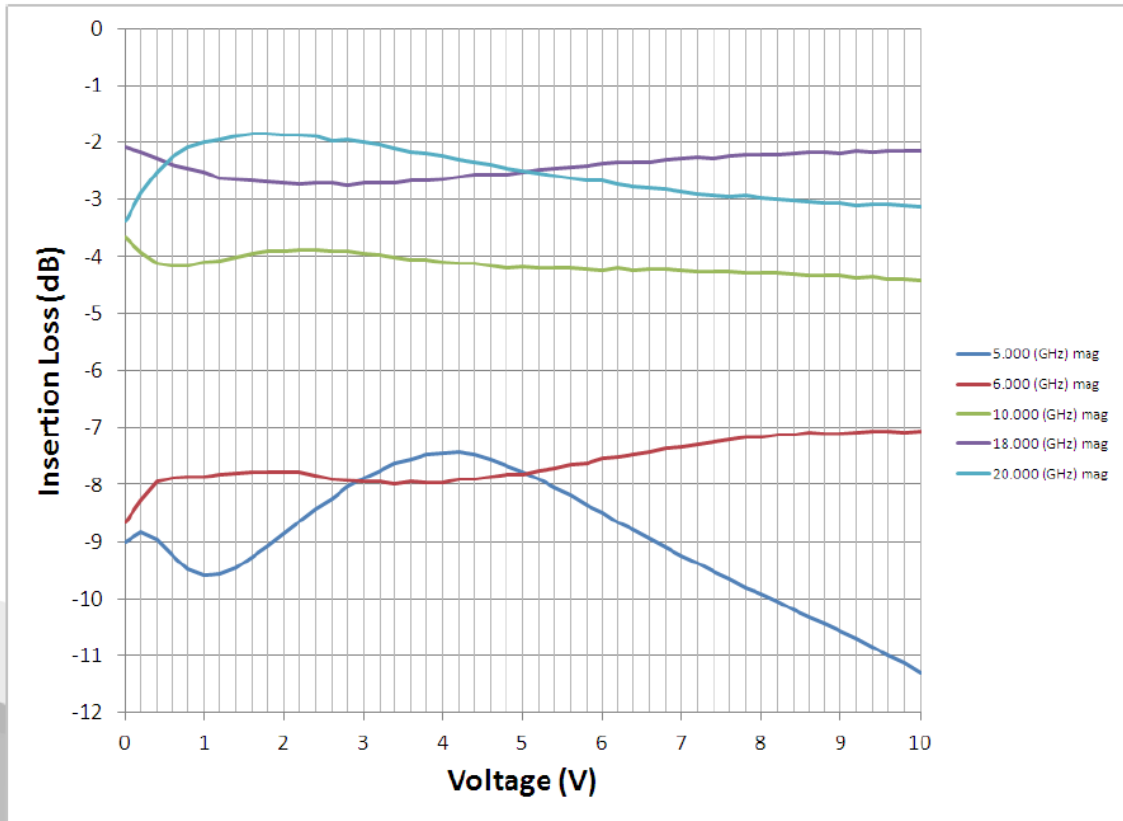


Frequency = 10GHz
Input Power = +8dBm



Typical Characteristics on PS-5G18G-400-A-SFF

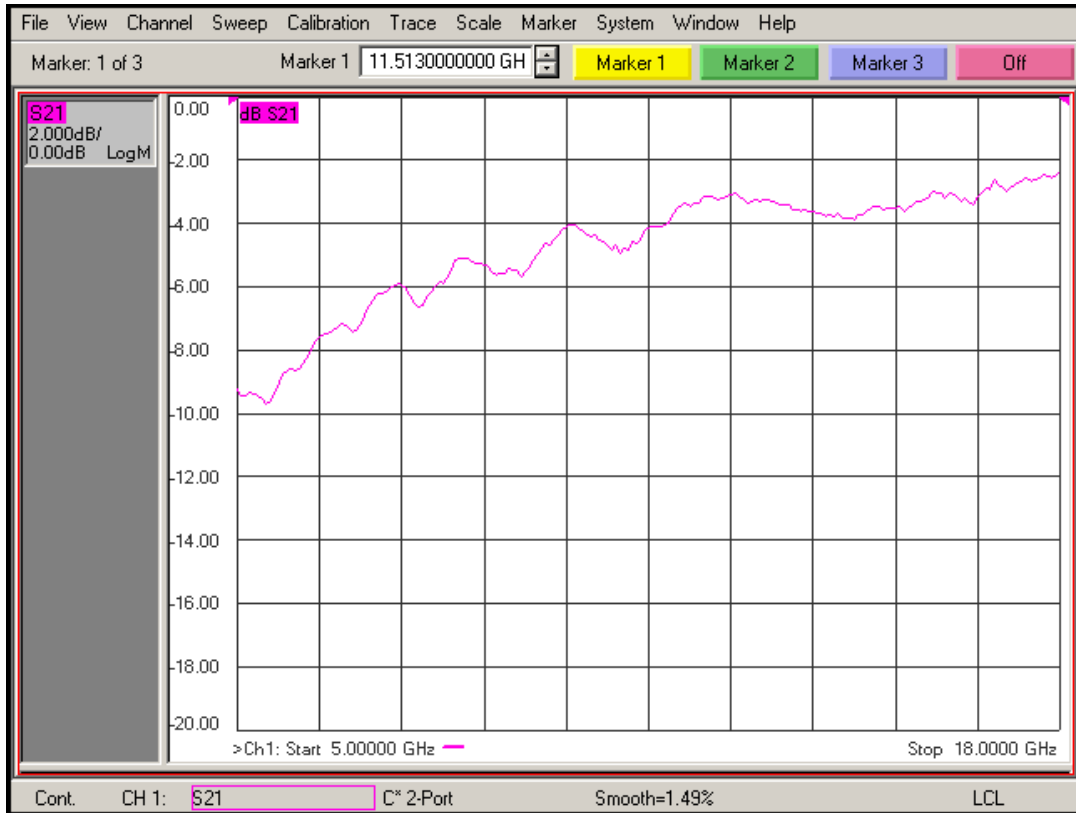
Amplitude (loss)





Typical Characteristics on PS-5G18G-400-A-SFF

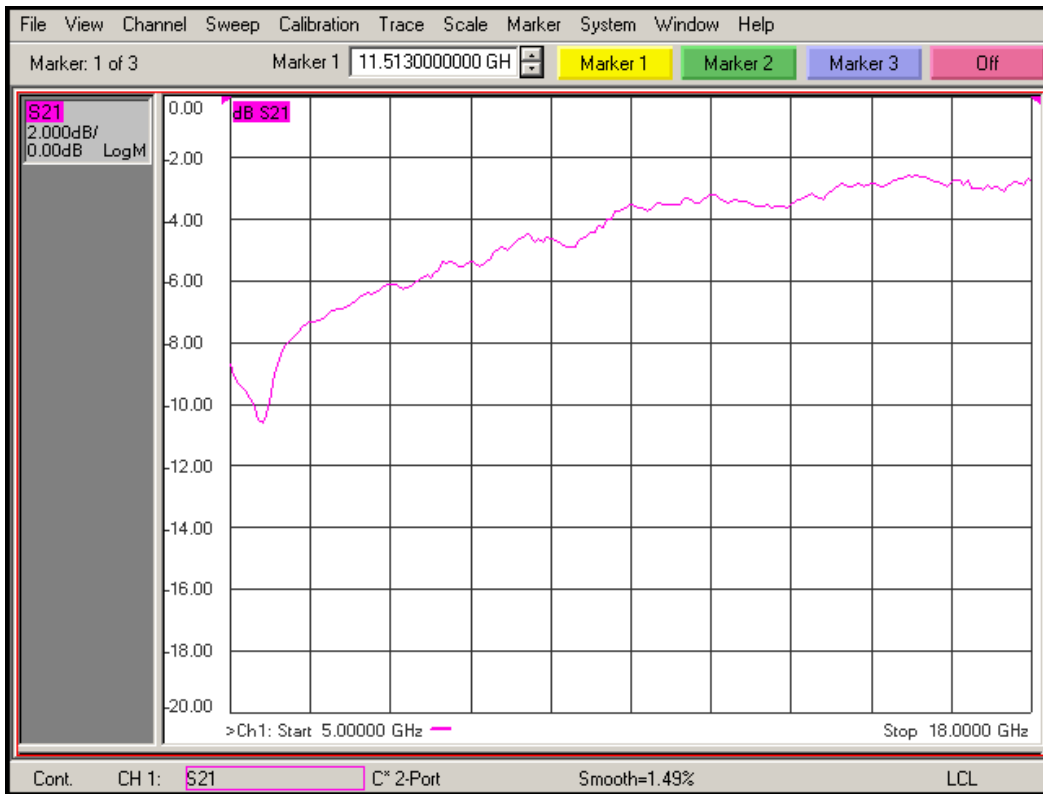
Insertion Loss @ Vctl = 0V





Typical Characteristics on PS-5G18G-400-A-SFF

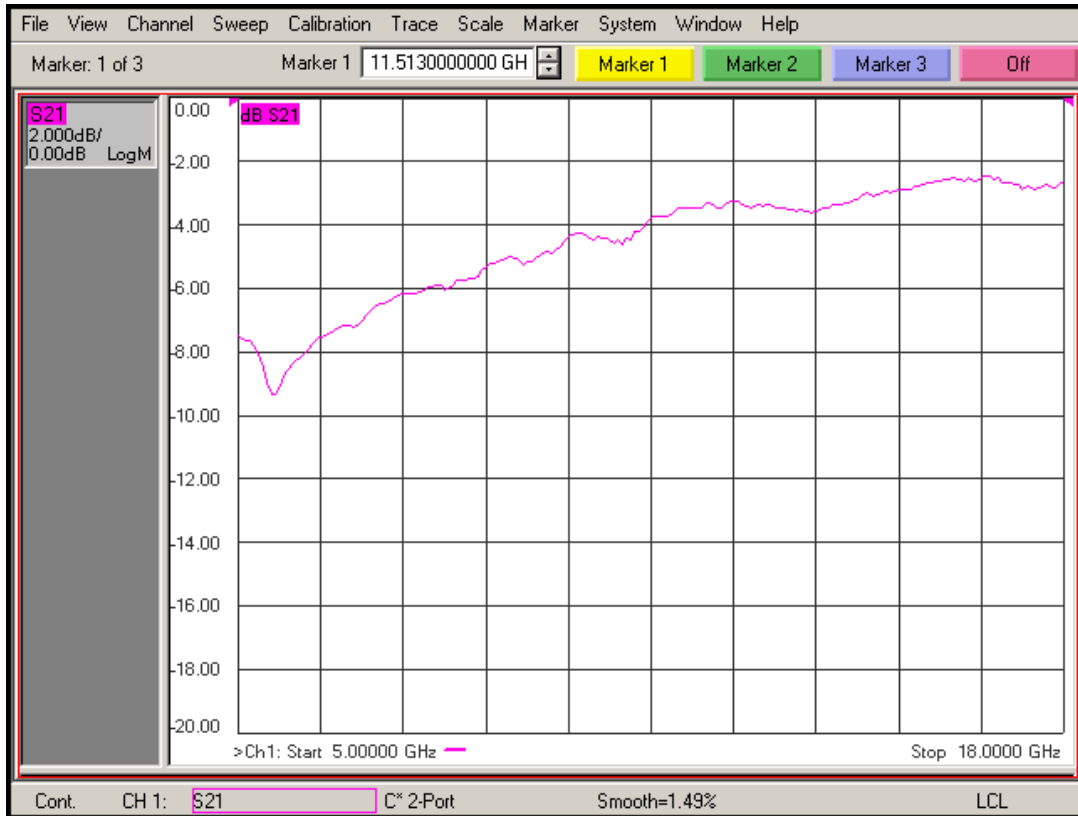
Insertion Loss @ Vctl = 2V





Typical Characteristics on PS-5G18G-400-A-SFF

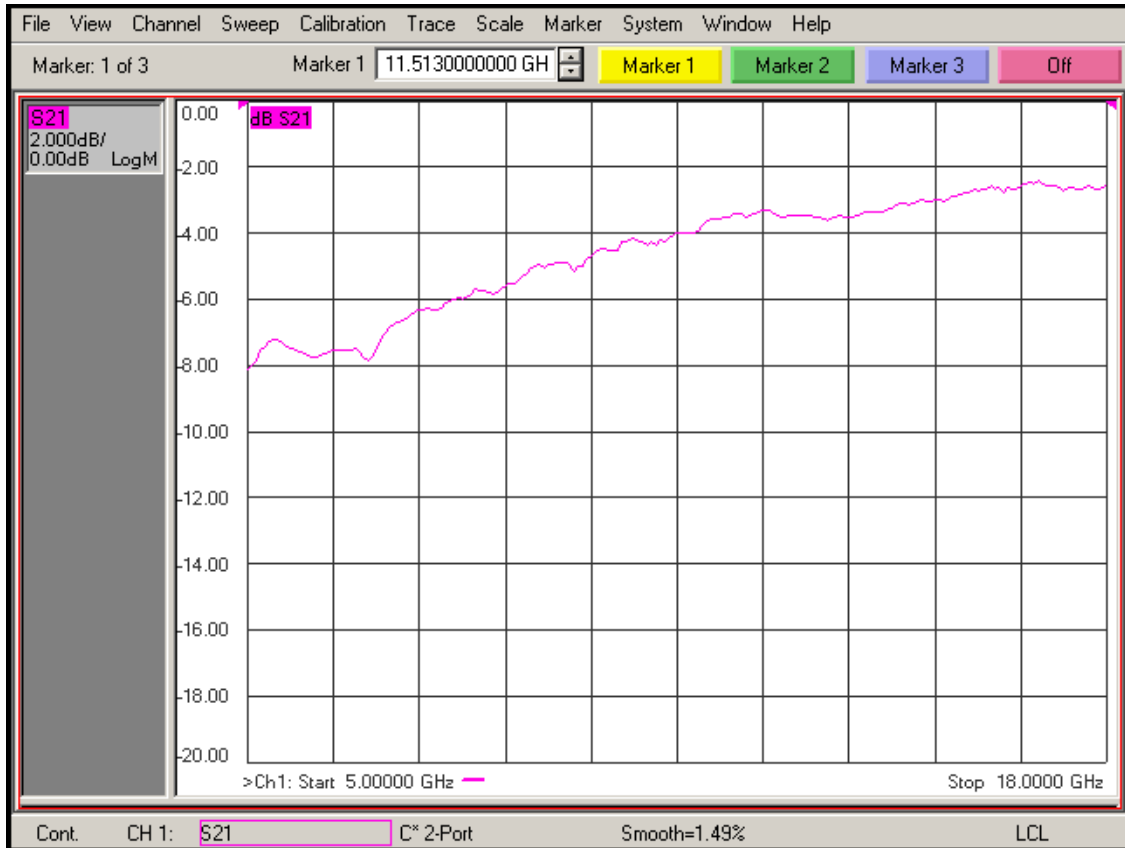
Insertion Loss @ Vctl = 4V





Typical Characteristics on PS-5G18G-400-A-SFF

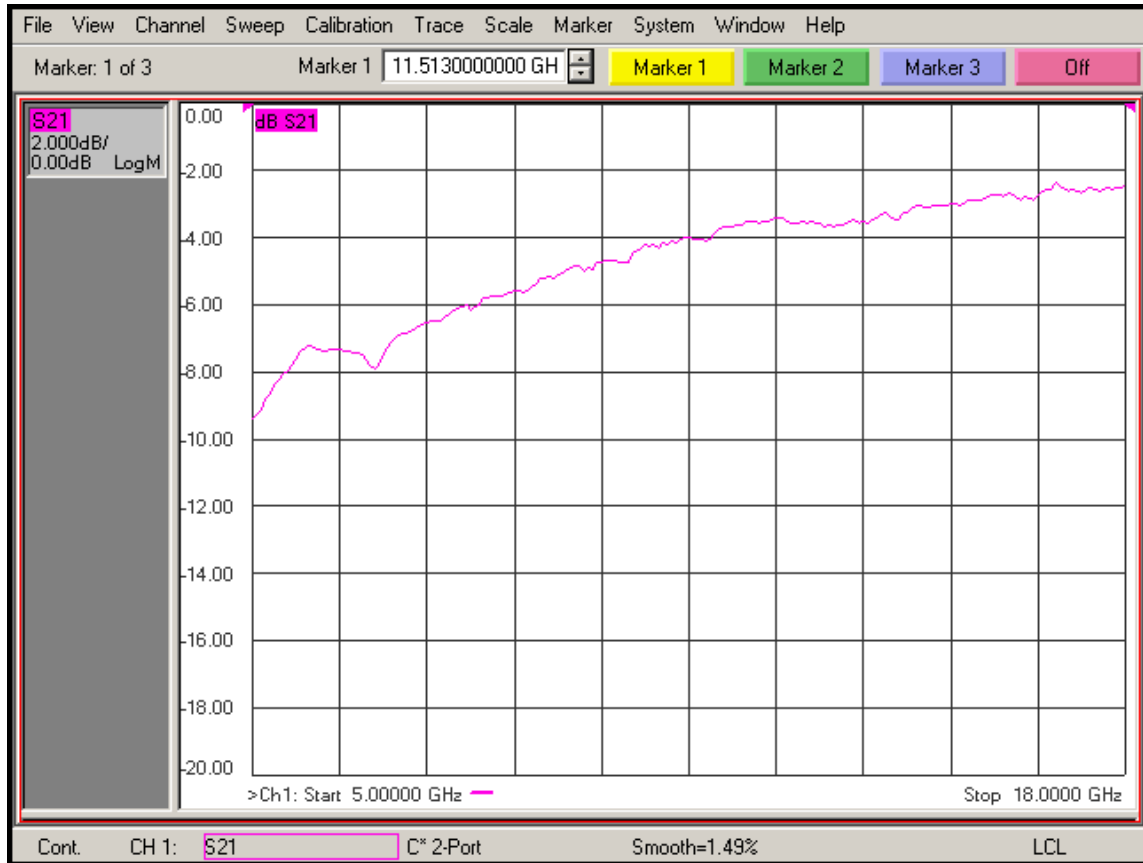
Insertion Loss @ Vctl = 6V





Typical Characteristics on PS-5G18G-400-A-SFF

Insertion Loss @ Vctl = 8V





Typical Characteristics on PS-5G18G-400-A-SFF

Insertion Loss @ Vctl = 10V

