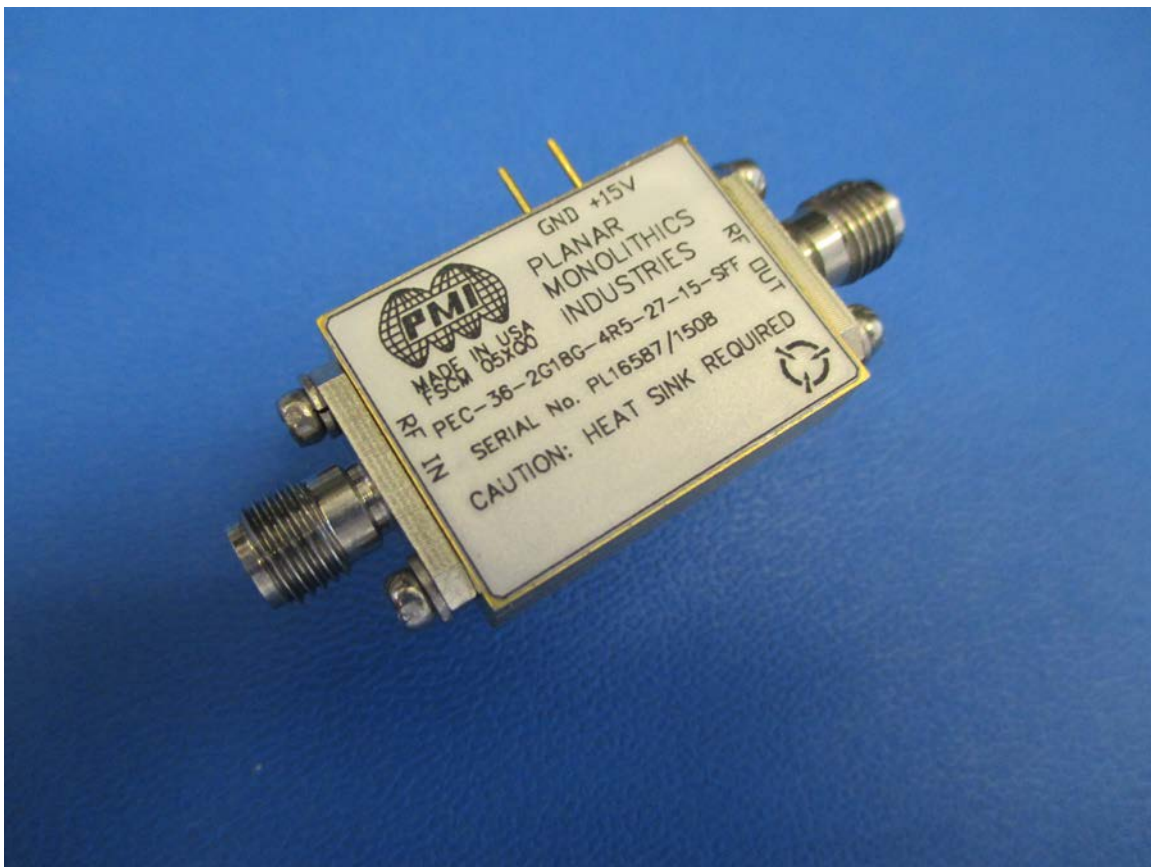




Typical Characteristics On PEC-36-2G18G-4R5-27-15-SFF

PMI Model No. PEC-36-2G18G-4R5-27-15-SFF is a 2.0 to 18.0 GHz medium power, low noise amplifier offering 36dB gain and a typical OP1dB of +27dBm with a low noise figure of 4.5dB This amplifier is supplied in a housing measuring 1.0" X 0.63" X 0.25" with SMA female connectors.



**May 13th, 2020
Designed By: Kevin Mason
Reported & Tested By: E.Benson & Jerry Wade**



Typical Characteristics **On** **PEC-36-2G18G-4R5-27-15-SFF**

DESCRIPTION:

PMI MODEL NUMBER: PEC-36-2G18G-4R5-27-15-SFF IS A 2.0 TO 18.0 GHz MEDIUM POWER, LOW NOISE AMPLIFIER OFFERING 36dB GAIN AND A DP1dB OF +27dBm WITH A LOW NOISE FIGURE OF 4.5dB. THIS AMPLIFIER IS SUPPLIED IN A HOUSING MEASURING 1.0" X 0.63" X 0.25" WITH SMA FEMALE CONNECTORS.

SPECIFICATIONS:

FREQUENCY:	2.0 TO 18.0 GHz
GAIN:	36dB TYPICAL
GAIN FLATNESS:	+/-1.5dB TYPICAL
NOISE FIGURE:	4.5dB TYPICAL, 5.0dB MAX.
OP1dB:	+26.5dBm MIN., +27.5dBm TYPICAL
VSWR INPUT/OUTPUT:	2.0:1 MAX.
IMPEDANCE:	50 OHMS
INPUT POWER:	+20dBm CW MAX.
DC VOLTAGE SUPPLY:	+15VDC
DC CURRENT DRAW:	850mA NOMINAL
CONNECTORS IN/OUT:	SMA FEMALE CONNECTORS
FINISH:	GOLD PLATED

FEATURES:

INTERNAL VOLTAGE REGULATION
REVERSE VOLTAGE PROTECTION
UNCONDITIONAL STABILITY

AVAILABLE OPTIONS:

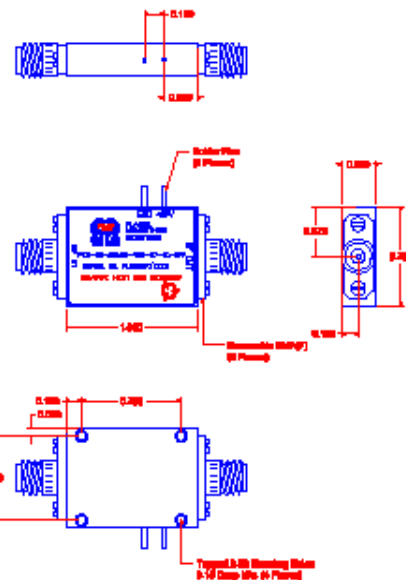
VARIOUS PACKAGE TYPES
VARIOUS CONNECTOR TYPES
HERMETIC SEALING
GAIN AND PHASE MATCHING
MIL-STD-883 SCREENING AVAILABLE

ENVIRONMENTAL RATINGS:

TEMPERATURE:	-55 TO +85 DEG. C (OPERATING) -65 TO +125 DEG. C (STORAGE)
HUMIDITY:	MIL-STD-202F, METHOD 103B COND. B
SHOCK:	MIL-STD-202F, METHOD 213B COND. C
ALTITUDE:	MIL-STD-202F, METHOD 105C COND. B
TEMPERATURE CYCLE	MIL-STD-202F, METHOD 107D COND. A

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION
NOTE: SPECIFICATIONS ARE VALID AT +25C.

REVISIONS			
DATE	REV	DESCRIPTION	APPROVED
11/14/14	1	ORIGINAL RELEASE	



ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
XXX ±0.005
XXX ±0.010

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



APPROVAL		DATE		TITLE	
DESIGN	10/14/14	DATE	10/14/14	PRODUCT FEATURE	PEC-36-2G18G-4R5-27-15-SFF
CHECKED		REV	1	REV	1
DRAWN		REV	1	REV	1
SCALE	N: 1	SCALE	N: 1	SCALE	N: 1



**Typical Characteristics
On
PEC-36-2G18G-4R5-27-15-SFF**

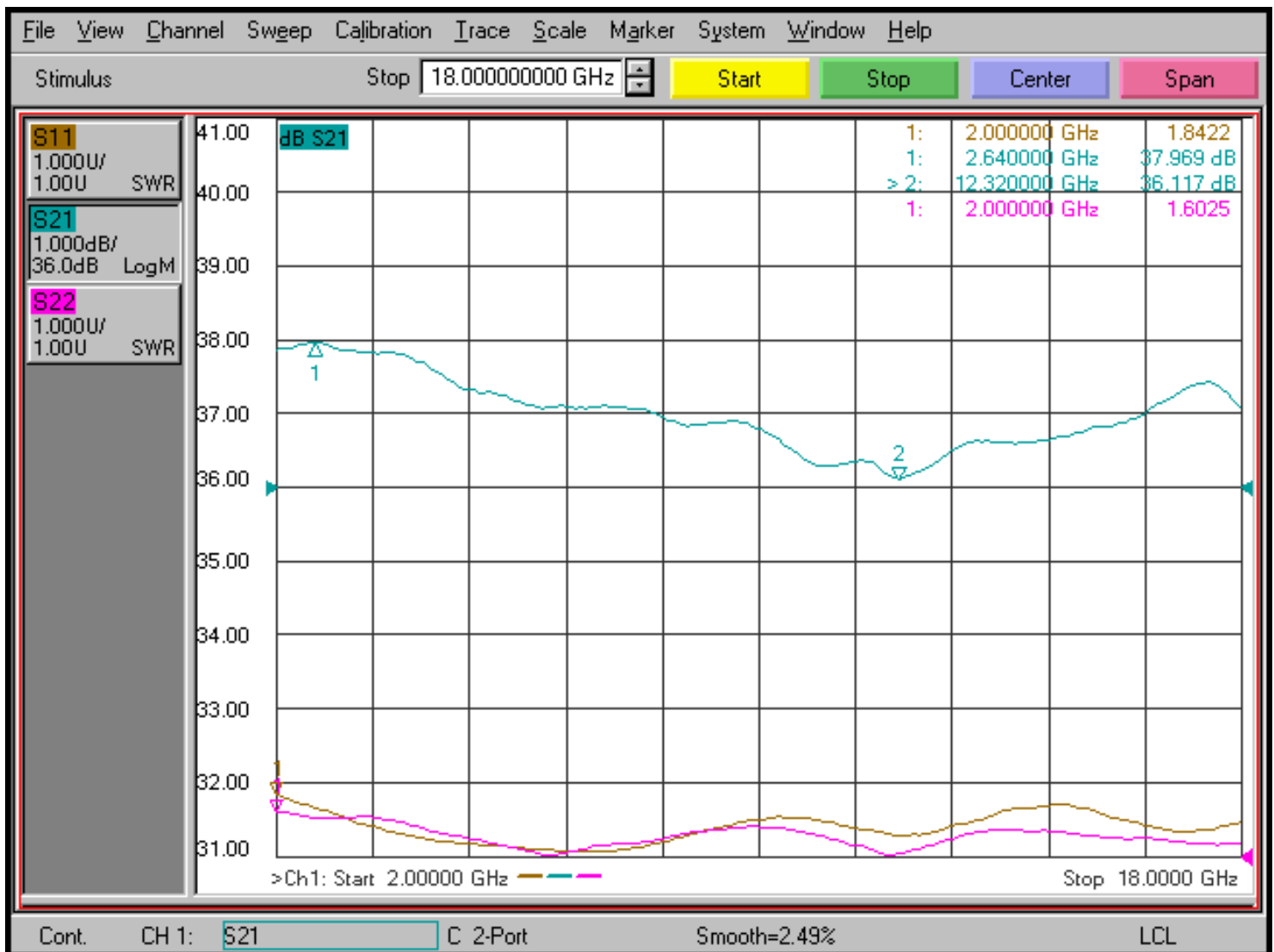
Typical Data @+25C

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS
1	Frequency Range:	2.0 GHz to 18.0 GHz	2.0 GHz to 18.0 GHz See Plot
2	Gain:	36 dB Typical	37 dB See Plot
3	Gain Flatness:	+/- 1.5 dB Typical	+/-0.93 dB See Plot
4	Noise Figure:	4.5 dB Typical 5.0 dB Max	4.173 dB See Plot
5	OP1dB:	+26.5 dBm Min. +27.5 dBm Typical	26.7dBm 27.4 dBm See Plot
6	IP3	Not Specified	+35.0dBm See Plot
7	VSWR Input/Output:	2.0:1 Max	1.84:1 Input 1.60:1 Output See Plot
8	Impedance:	50 Ohms	Pass
9	Input Power:	+20 dBm CW Max.	Pass
10	DC Voltage Supply: DC Current Draw:	+15VDC @ 850 mA Nominal	+15VDC @ 579mA



Typical Characteristics On PEC-36-2G18G-4R5-27-15-SFF

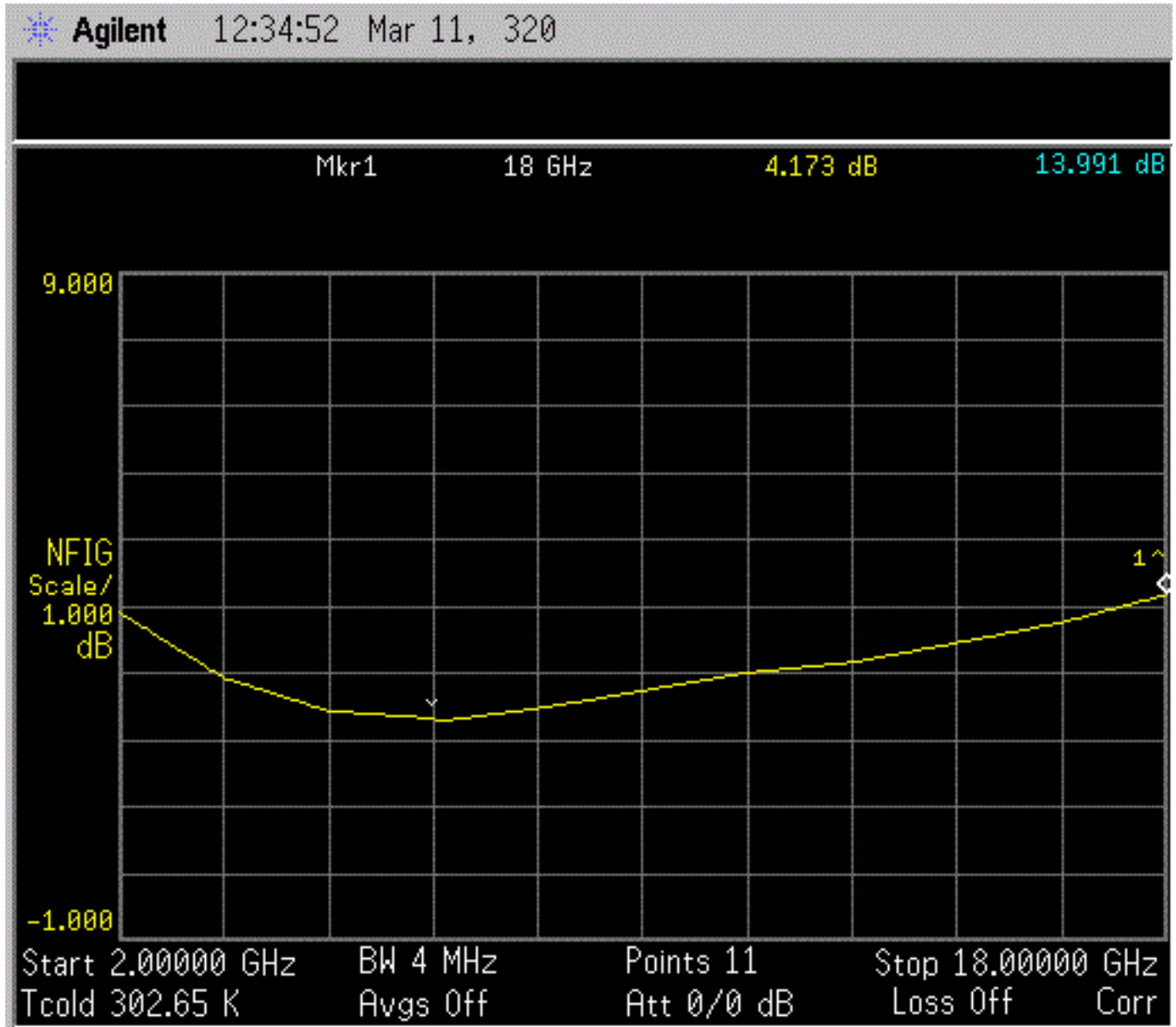
Small Signal Gain & VSWR @ +25C





Typical Characteristics On PEC-36-2G18G-4R5-27-15-SFF

Typical Noise Figure @ +25C

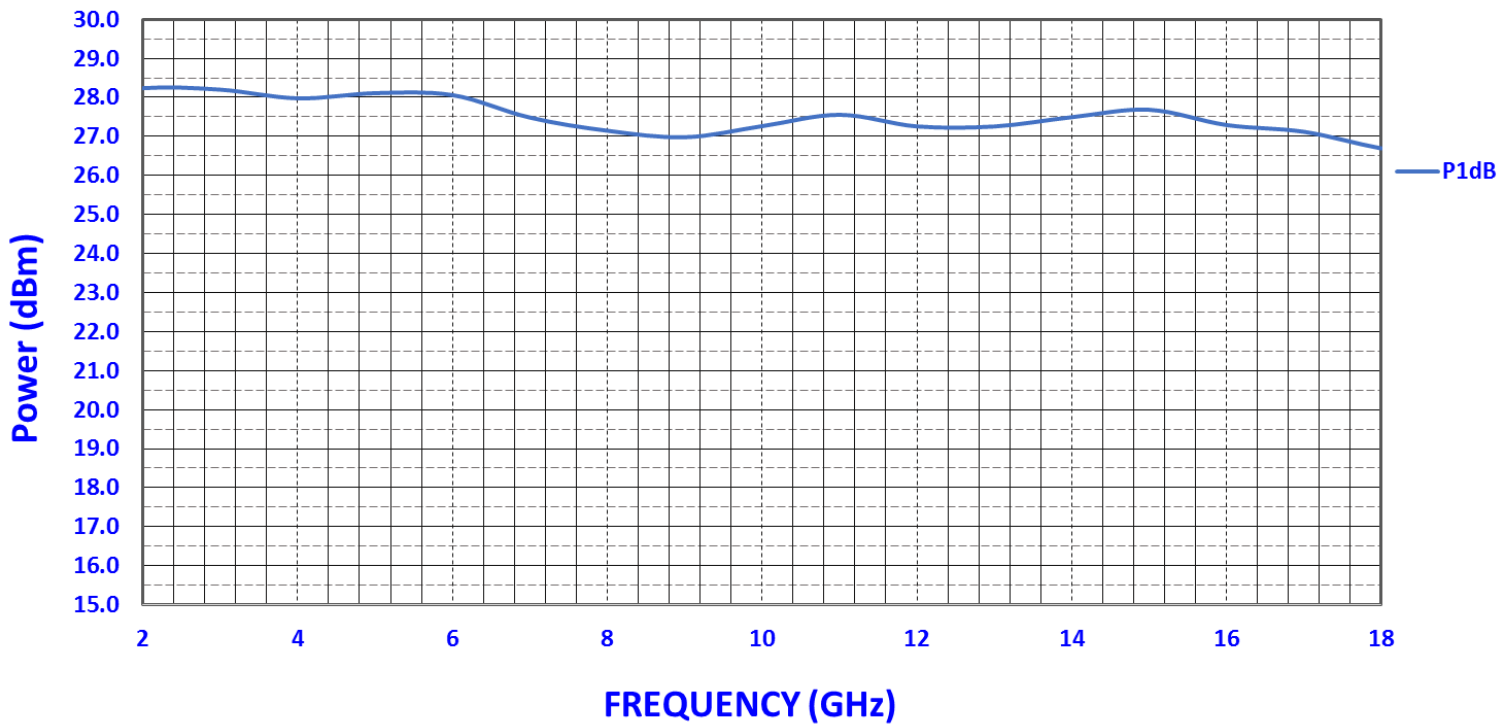




Typical Characteristics On PEC-36-2G18G-4R5-27-15-SFF

Power Output at 1dB Gain Compression [P1dB] @ +25C

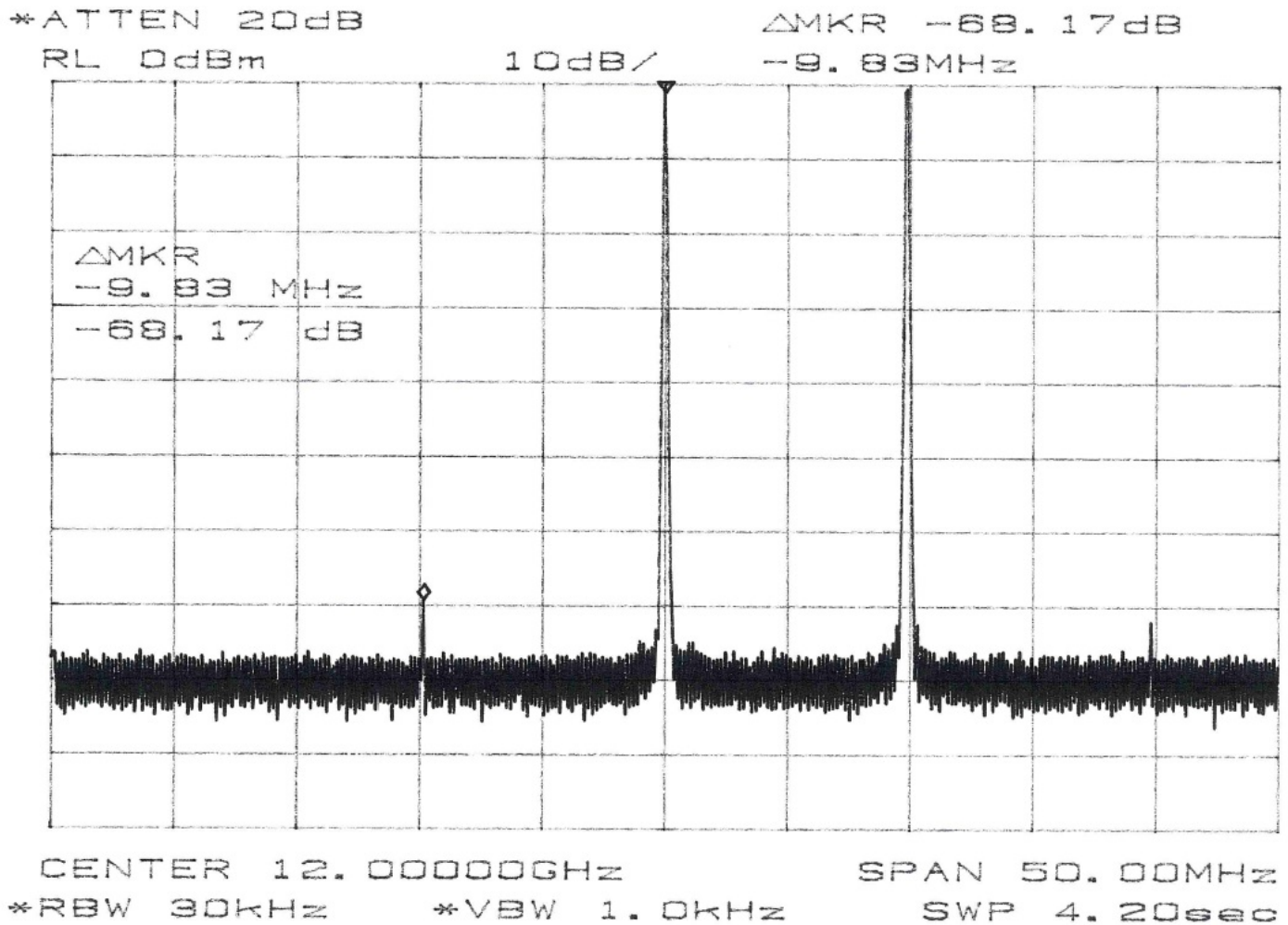
P1dB Vs Frequency





**Typical Characteristics
On
PEC-36-2G18G-4R5-27-15-SFF**

IP3 @+25C



IP3 = +34.1dBm
IP3 = Pout + (delta P / 2)



Typical Characteristics **On** **PEC-36-2G18G-4R5-27-15-SFF**

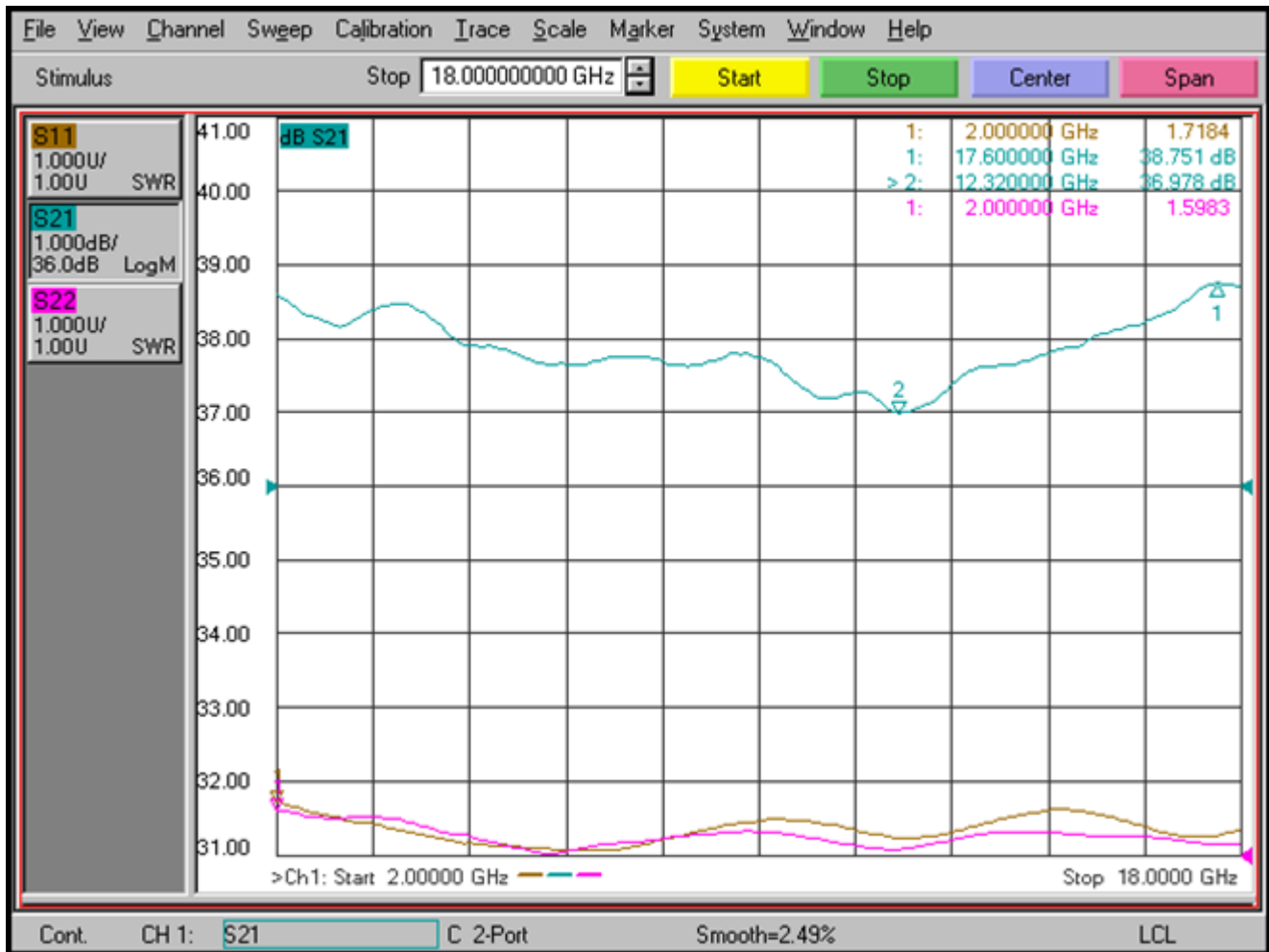
Typical Data @-55C

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS
1	Frequency Range:	2.0 GHz to 18.0 GHz	2.0 GHz to 18.0 GHz See Plot
2	Gain:	36 dB Typical	37.86 dB See Plot
3	Gain Flatness:	+/- 1.5 dB Typical	+/-0.885 dB See Plot
4	Noise Figure:	4.5 dB Typical 5.0 dB Max	3.321 dB See Plot
5	OP1dB:	Not Specified +27.5 dBm Typical	27.03 dBm 28.14 dBm See Plot
6	VSWR Input/Output:	2.0:1 Max	1.71:1 Input 1.59:1 Output See Plot
7	Impedance:	50 Ohms	Pass
8	Input Power:	+20 dBm CW Max.	Pass
9	DC Voltage Supply: DC Current Draw:	+15VDC @ 850 mA Nominal	+15VDC @ 538mA



Typical Characteristics On PEC-36-2G18G-4R5-27-15-SFF

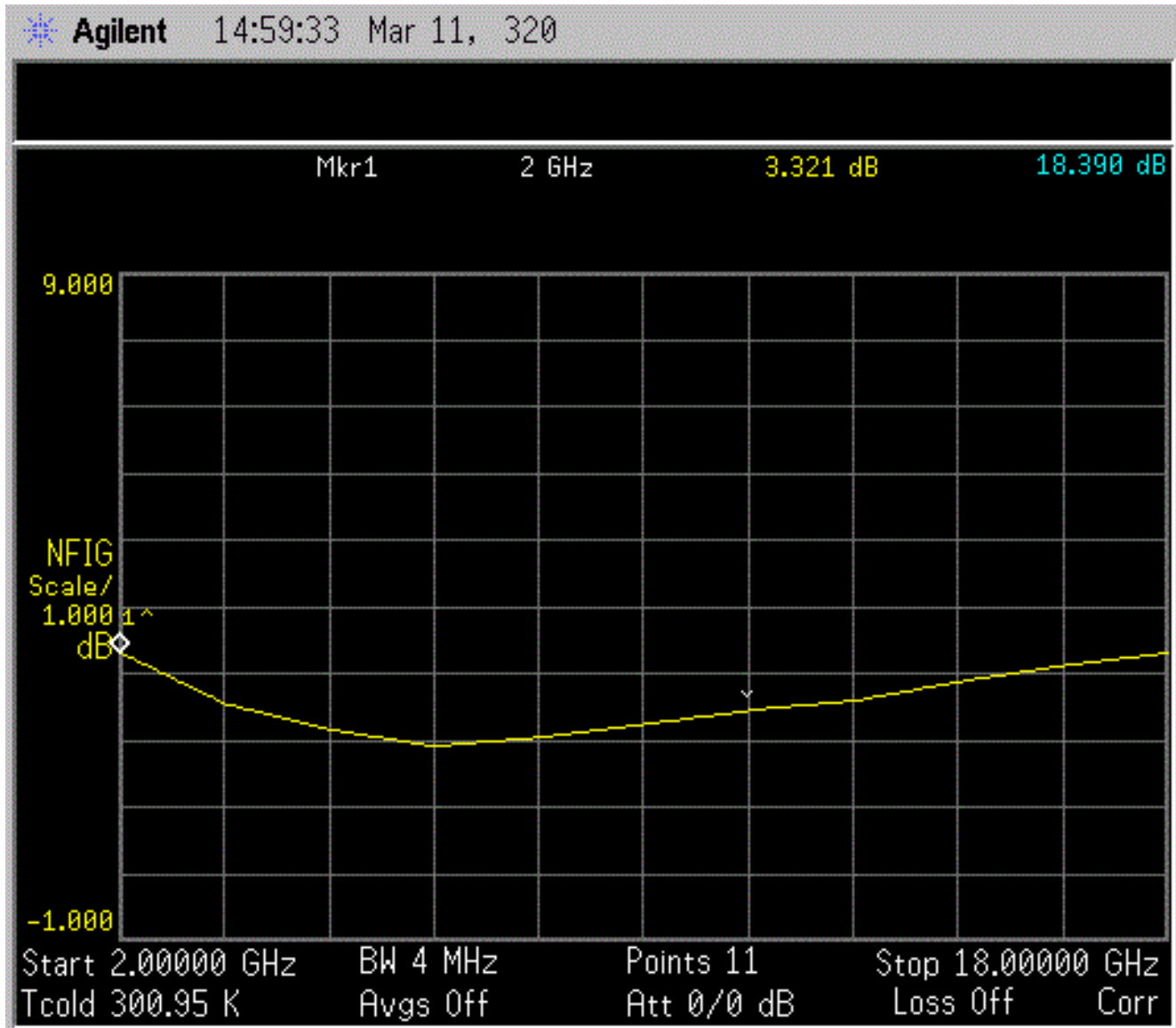
Small Signal Gain & VSWR @ -55C





Typical Characteristics On PEC-36-2G18G-4R5-27-15-SFF

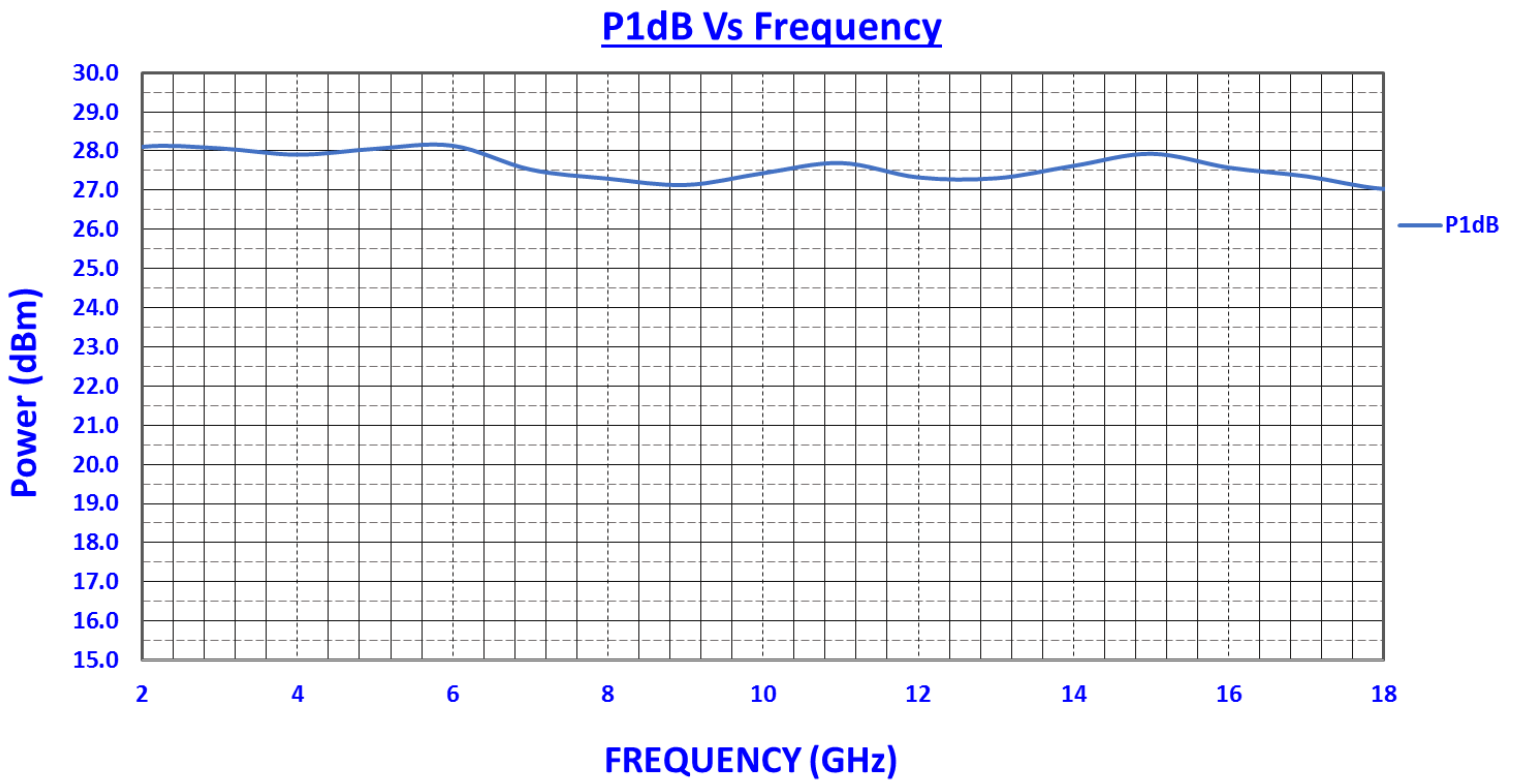
Typical Noise Figure @ -55C





Typical Characteristics On PEC-36-2G18G-4R5-27-15-SFF

Power Output at 1dB Gain Compression [P1dB] @ -55C





**Typical Characteristics
On
PEC-36-2G18G-4R5-27-15-SFF**

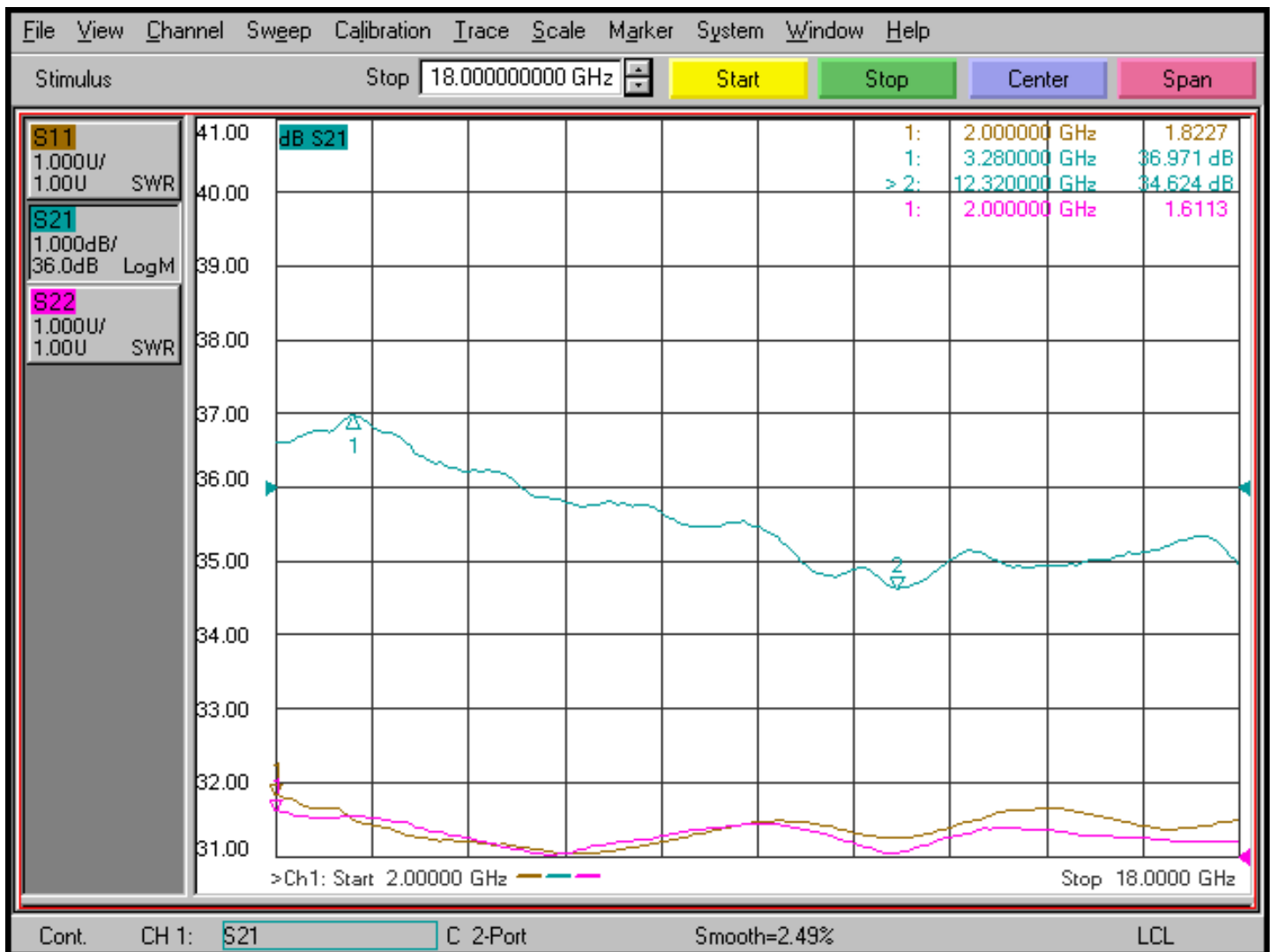
Typical Data @+85C

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS
1	Frequency Range:	2.0 GHz to 18.0 GHz	2.0 GHz to 18.0 GHz See Plot
2	Gain:	36 dB Typical	35.8 dB See Plot
3	Gain Flatness:	+/- 1.5 dB Typical	+/-1.175 dB See Plot
4	Noise Figure:	4.5 dB Typical 5.0 dB Max	4.38 dB See Plot
5	OP1dB:	Not Specified +27.5 dBm Typical	26.08 dBm 27.2 dBm See Plot
6	VSWR Input/Output:	2.0:1 Max	1.82:1 Input 1.61:1 Output See Plot
7	Impedance:	50 Ohms	Pass
8	Input Power:	+20 dBm CW Max.	Pass
9	DC Voltage Supply: DC Current Draw:	+15VDC @ 850 mA Nominal	+15VDC @ 614mA



Typical Characteristics On PEC-36-2G18G-4R5-27-15-SFF

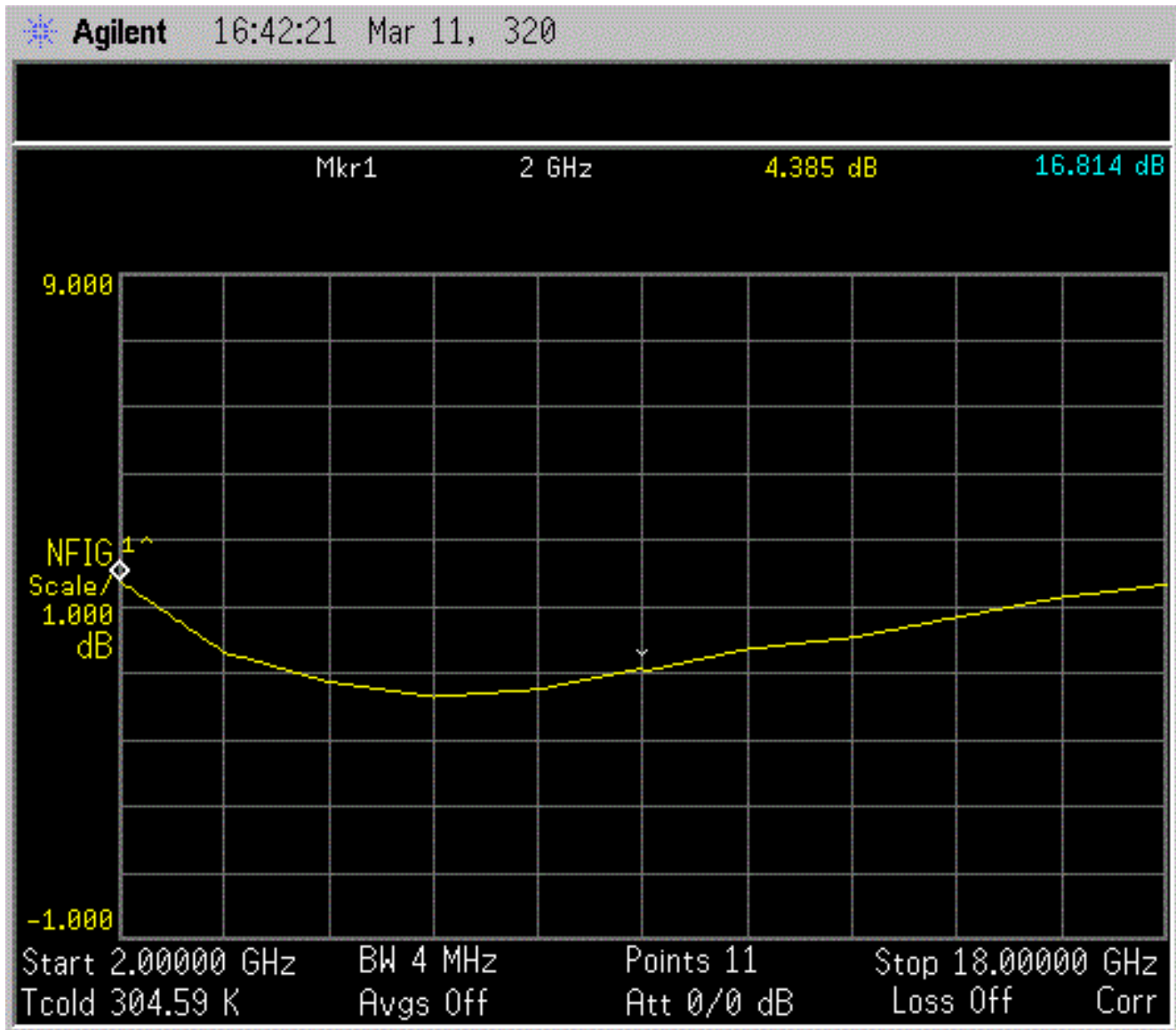
Small Signal Gain & VSWR @ +85C





Typical Characteristics On PEC-36-2G18G-4R5-27-15-SFF

Typical Noise Figure @ +85C





Typical Characteristics On PEC-36-2G18G-4R5-27-15-SFF

Power Output at 1dB Gain Compression [P1dB] @ +85C

P1dB Vs Frequency

