***** Step Lock Test from 4000 MHz to 16000 MHz ? MHz Steps *****

Serial Number: 0017
Model Number: MLSP-4016BD
Time: 11:34:29 AM
Date: 11/1/2011
Minimum Frequency: 4000 MHz
Maximum Frequency: 16000 MHz
Temperature: +32.9C Deg. C
NOVO State: Locked
Power Supply Spec: +5.0 VDC +/- 0.25 V @ < 300 mA
Power Supply Spec: +15.0 VDC +/- 0.50 V @ < 1500 mA

Total Frequency Errors: 0

Finish Time: 11:36:07 AM

Begin Random Step Lock Test from 4000 MHz to 16000 MHz (1000 Frequencies)

Total Ramdom Frequency Errors: 0

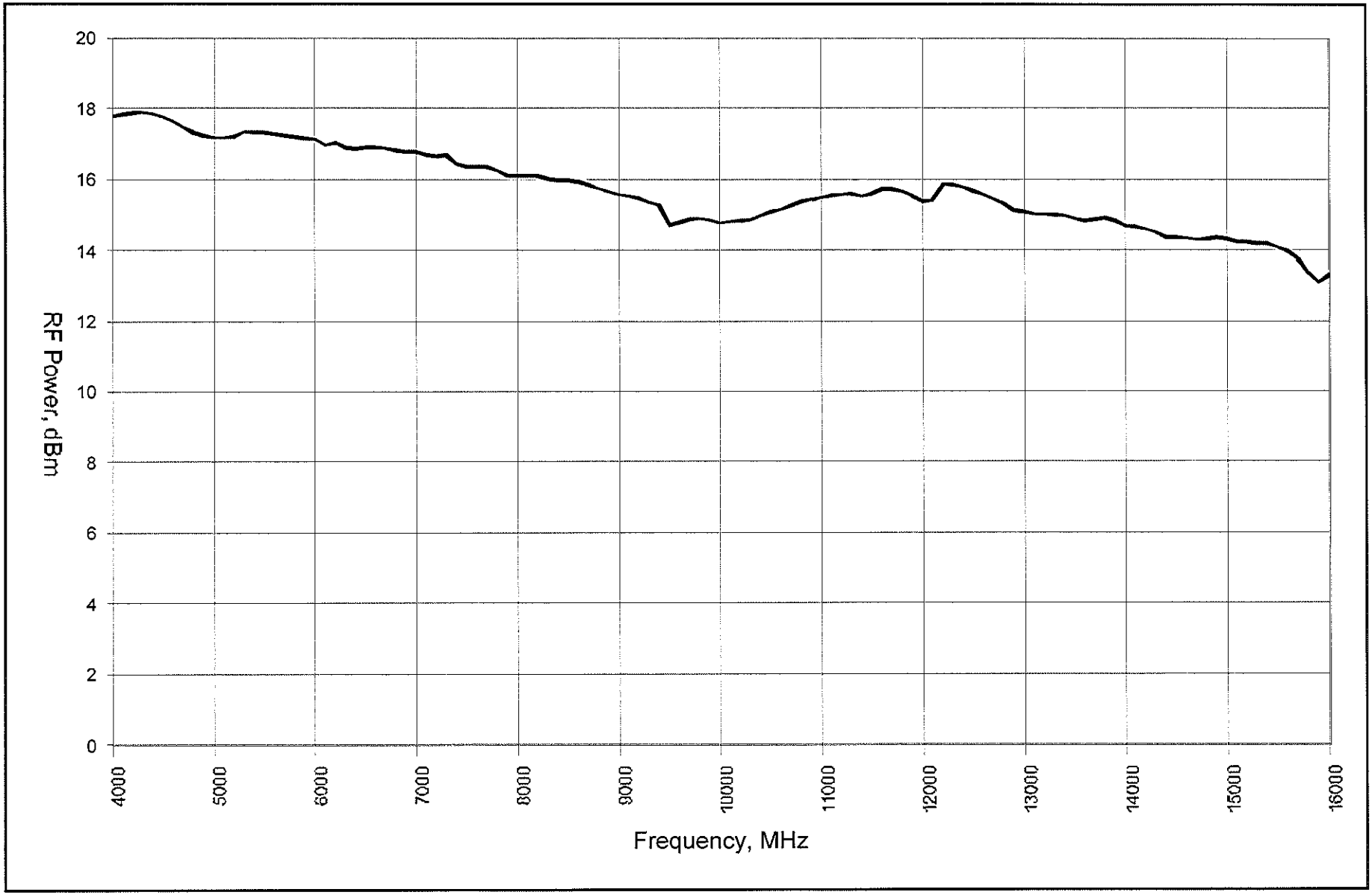
Finish Time: 11:37:29 AM

+5.0 VDC Voltage = 5.001V Pass
+5.0 VDC Current = 291mA Pass
+15.0 VDC Voltage = 14.995V Pass
+15.0 VDC Current = 1440mA Pass

Pass

Model #: MLSP-4016BD Serial #: 0017 Min Power: 10 dBm Max Power: 18 dBm Temp. : +33.8C Deg. C Date: 11-01-2011 Time: 11:40:13 **Status = Pass**

Maximum RF Output Power vs. Frequency



Print

Max Leveled Pwr: N/A dBm Min Leveled Pwr: N/A dBm Leveled Pwr Set: N/A dBm Level Flatness Spec: +/-2.5 dB

***** Harmonic Test from 4000.000000 MHz to 16000.000000 MHz in 100 MHz Steps *****

Model Number: MLSP-4016BD
Serial Number: 0017
Time: 3:51:33 PM
Date: 10/27/2011
Minimum Frequency: 4000.000000 MHz
Maximum Frequency: 16000.000000 MHz
Current Unit Temperature: +36.3C Deg. C
Harmonic Spec Level (In Band): -12.0 dBc

Frequency	Level	Harm #	Status
4000 MHz	-17 dBc	2	PASS
4100 MHz	-18 dBc	2	PASS
4200 MHz	-19 dBc	3	PASS
4300 MHz	-19 dBc	3	PASS
4400 MHz	-19 dBc	3	PASS
4500 MHz	-18 dBc	3	PASS
4600 MHz	-18 dBc	3	PASS
4700 MHz	-18 dBc	3	PASS
4800 MHz	-18 dBc	3	PASS
4900 MHz	-17 dBc	3	PASS
5000 MHz	-17 dBc	3	PASS
5100 MHz	-17 dBc	3	PASS
5200 MHz	-18 dBc	3	PASS
5300 MHz	-19 dBc	3	PASS
5400 MHz	-19 dBc	3	PASS
5500 MHz	-18 dBc	3	PASS
5600 MHz	-18 dBc	3	PASS
5700 MHz	-18 dBc	3	PASS
5800 MHz	-18 dBc	3	PASS
5900 MHz	-18 dBc	3	PASS
6000 MHz	-19 dBc	2	PASS
6100 MHz	-20 dBc	3	PASS
6200 MHz	-19 dBc	2	PASS
6300 MHz	-18 dBc	2	PASS
6400 MHz	-20 dBc	2	PASS
6500 MHz	-21 dBc	3	PASS
6600 MHz	-21 dBc	3	PASS
6700 MHz	-21 dBc	3	PASS
6800 MHz	-22 dBc	3	PASS
6900 MHz	-24 dBc	3	PASS
7000 MHz	-23 dBc	3	PASS
7100 MHz	-23 dBc	3	PASS
7200 MHz	-25 dBc	3	PASS
7300 MHz	-25 dBc	3	PASS
7400 MHz	-27 dBc	3	PASS
7500 MHz	-26 dBc	2	PASS
7600 MHz	-26 dBc	2	PASS
7700 MHz	-27 dBc	2	PASS
7800 MHz	-27 dBc	2	PASS
7900 MHz	-27 dBc	2	PASS
8000 MHz	-26 dBc	2	PASS
8100 MHz	-28 dBc	2	PASS
8200 MHz	-28 dBc	2	PASS
8300 MHz	-27 dBc	2	PASS
8400 MHz	-24 dBc	2	PASS
8500 MHz	-24 dBc	2	PASS
8600 MHz	-23 dBc	2	PASS
8700 MHz	-22 dBc	2	PASS
8800 MHz	-22 dBc	2	PASS
8900 MHz	-22 dBc	2	PASS
9000 MHz	-22 dBc	2	PASS
9100 MHz	-23 dBc	2	PASS
9200 MHz	-22 dBc	2	PASS
9300 MHz	-23 dBc	2	PASS
9400 MHz	-24 dBc	2	PASS
9500 MHz	-24 dBc	2	PASS
9600 MHz	-24 dBc	2	PASS
9700 MHz	-25 dBc	2	PASS
9800 MHz	-26 dBc	2	PASS
9900 MHz	-26 dBc	2	PASS
10000 MHz	-25 dBc	2	PASS
10100 MHz	-26 dBc	2	PASS
10200 MHz	-27 dBc	2	PASS
10300 MHz	-28 dBc	2	PASS
10400 MHz	-28 dBc	2	PASS
10500 MHz	-27 dBc	2	PASS
10600 MHz	-28 dBc	2	PASS
10700 MHz	-29 dBc	2	PASS
10800 MHz	-30 dBc	2	PASS
10900 MHz	-31 dBc	2	PASS
11000 MHz	-32 dBc	2	PASS

11100 MHz	-33 dBc	2	PASS
11200 MHz	-34 dBc	2	PASS
11300 MHz	-36 dBc	2	PASS
11400 MHz	-36 dBc	2	PASS
11500 MHz	-36 dBc	2	PASS
11600 MHz	-35 dBc	2	PASS
11700 MHz	-34 dBc	2	PASS
11800 MHz	-34 dBc	2	PASS
11900 MHz	-33 dBc	2	PASS
12000 MHz	-34 dBc	2	PASS
12100 MHz	-32 dBc	2	PASS
12200 MHz	-31 dBc	2	PASS
12300 MHz	-31 dBc	2	PASS
12400 MHz	-33 dBc	2	PASS
12500 MHz	-36 dBc	2	PASS
12600 MHz	-33 dBc	2	PASS
12700 MHz	-33 dBc	2	PASS
12800 MHz	-34 dBc	2	PASS
12900 MHz	-33 dBc	2	PASS
13000 MHz	-34 dBc	2	PASS
13100 MHz	-34 dBc	2	PASS
13200 MHz	-35 dBc	2	PASS
13300 MHz	-33 dBc	2	PASS
13400 MHz	-33 dBc	2	PASS

Number of Failures: 0

Finish Time: 4:01:45 PM

Harmonic Readings complete

Pass

***** Phase Noise Test from 4000 MHz to 16000 M' 1200 MHz Steps *****

Model Number: MLSP-4016BD
Serial Number: 0017
Time: 11:51:04 AM
Date: 10/31/2011
Minimum Frequency: 4000 MHz
Maximum Frequency: 16000 MHz
Number of Frequencies Tested: 11
Current Unit Temperature: +34.4C Deg. C

Phase Noise Spec @ Offset:
@ 100 Hz = -70.0 dBc/Hz
@ 1.0 kHz = -87.0 dBc/Hz
@ 10.0 kHz = -88.0 dBc/Hz
@ 100 Hz = -115.0 dBc/Hz
@ 1.0 MHz = -138.0 dBc/Hz
@ 10.0 MHz = -150 dBc/Hz

Measured:

Frequency	100 Hz	1 kHz	10 kHz	100 kHz	1 MHz	10 MHz	Status	RF Power
4000.000	-86.5	-103.3	-104.4	-116.8	-141.9	-159.7	Pass	11.10 dBm
5200.000	-84.3	-100.9	-102.0	-118.5	-144.3	-162.2	Pass	10.74 dBm
6400.000	-81.2	-98.7	-99.2	-119.1	-145.1	-165.0	Pass	10.21 dBm
7600.000	-81.4	-97.9	-99.0	-120.3	-145.7	-165.2	Pass	9.32 dBm
8800.000	-76.6	-94.9	-93.3	-115.5	-142.5	-160.9	Pass	7.94 dBm
10000.000	-78.0	-94.1	-93.5	-117.4	-144.0	-162.9	Pass	6.40 dBm
11200.000	-75.1	-93.8	-94.7	-119.1	-143.9	-162.0	Pass	5.85 dBm
12400.000	-75.8	-92.9	-92.5	-119.0	-143.8	-161.9	Pass	6.11 dBm
13600.000	-76.1	-92.4	-91.7	-119.4	-143.8	-161.1	Pass	5.24 dBm
14800.000	-73.4	-90.7	-91.4	-119.7	-144.1	-160.9	Pass	4.31 dBm
16000.000	-72.4	-90.3	-88.7	-116.3	-141.2	-158.5	Pass	2.16 dBm

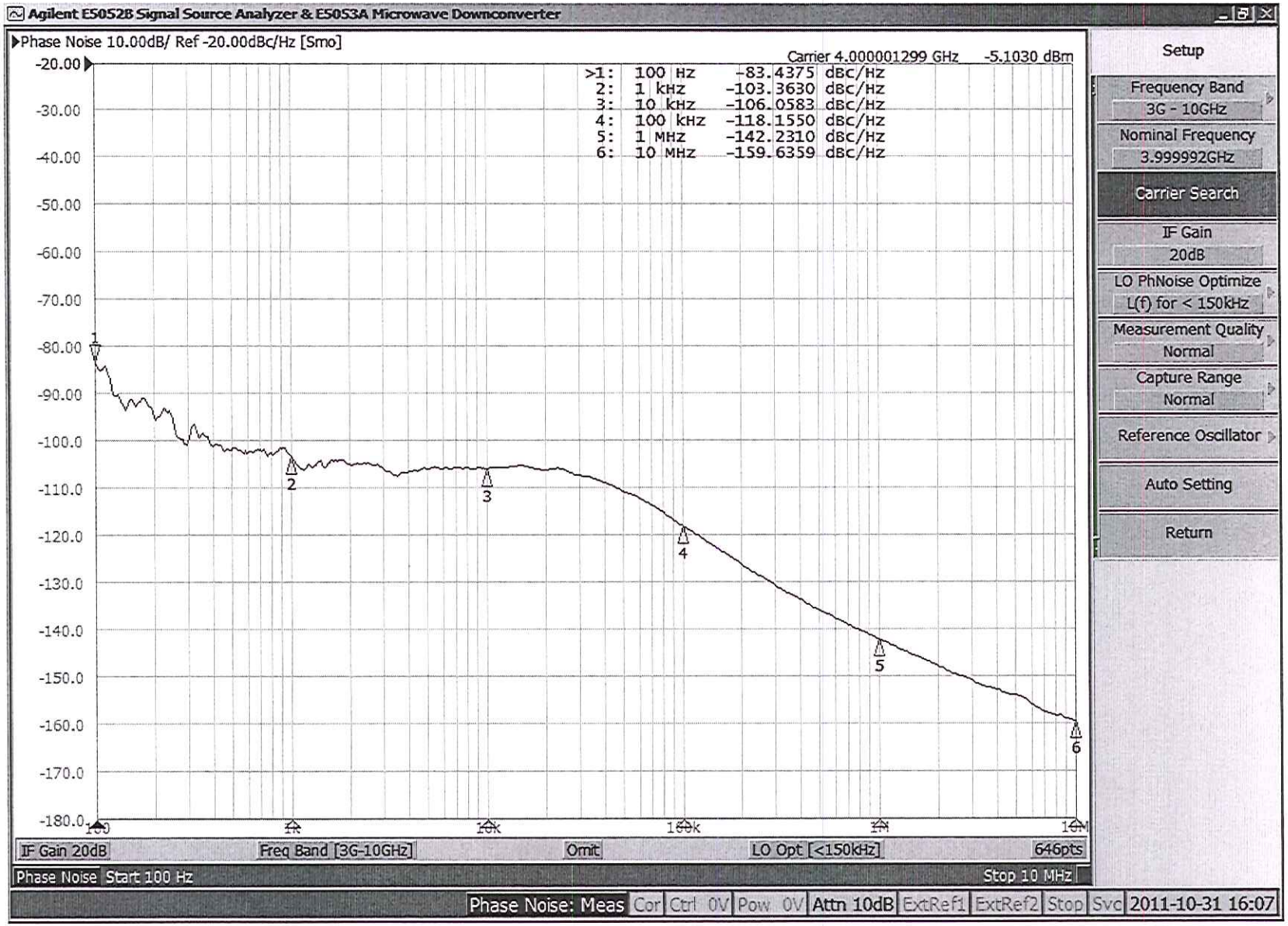
Number of Failures: 0

Finish Time: 11:55:18 AM

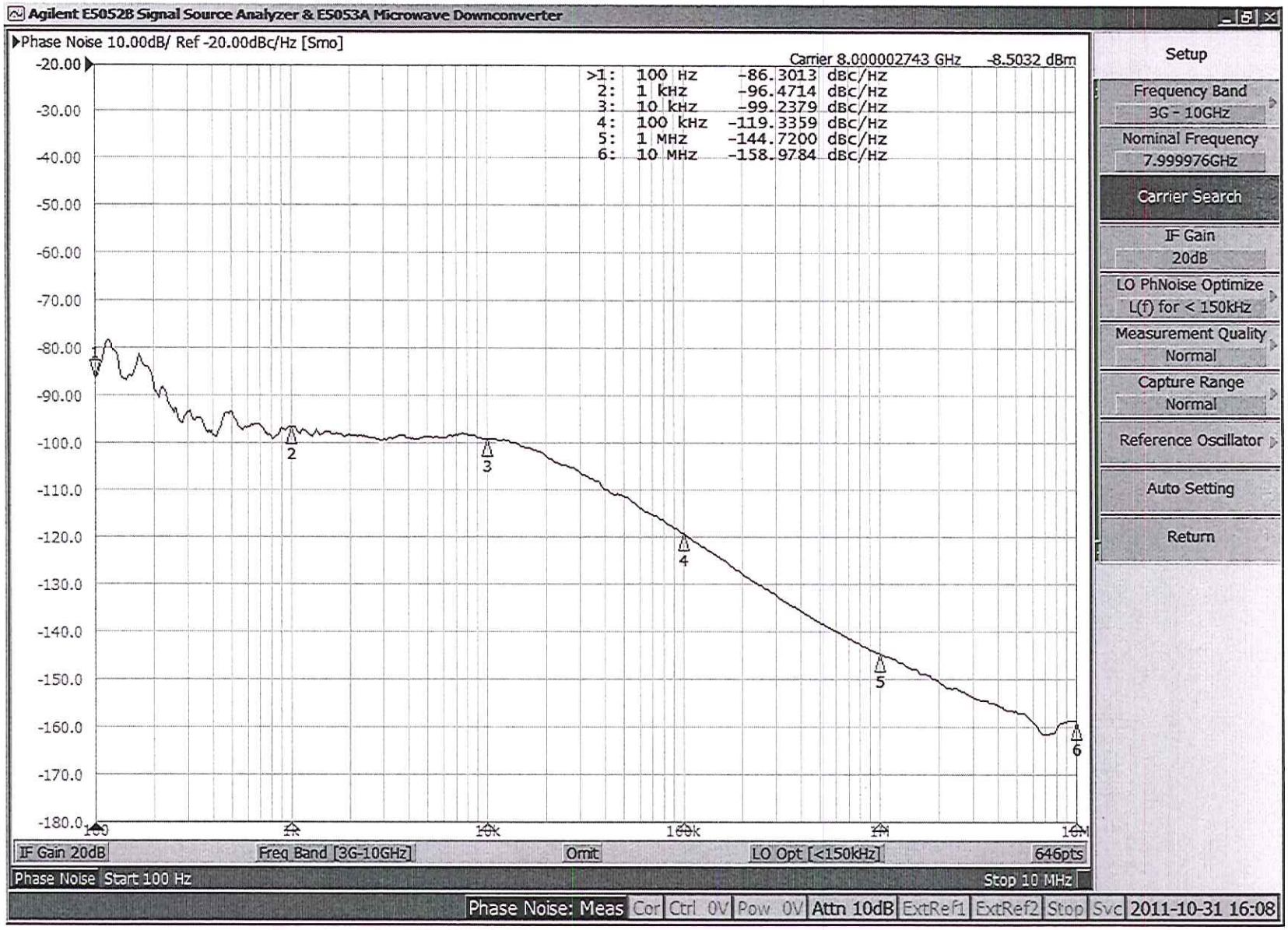
Phase Noise Readings Complete

Pass

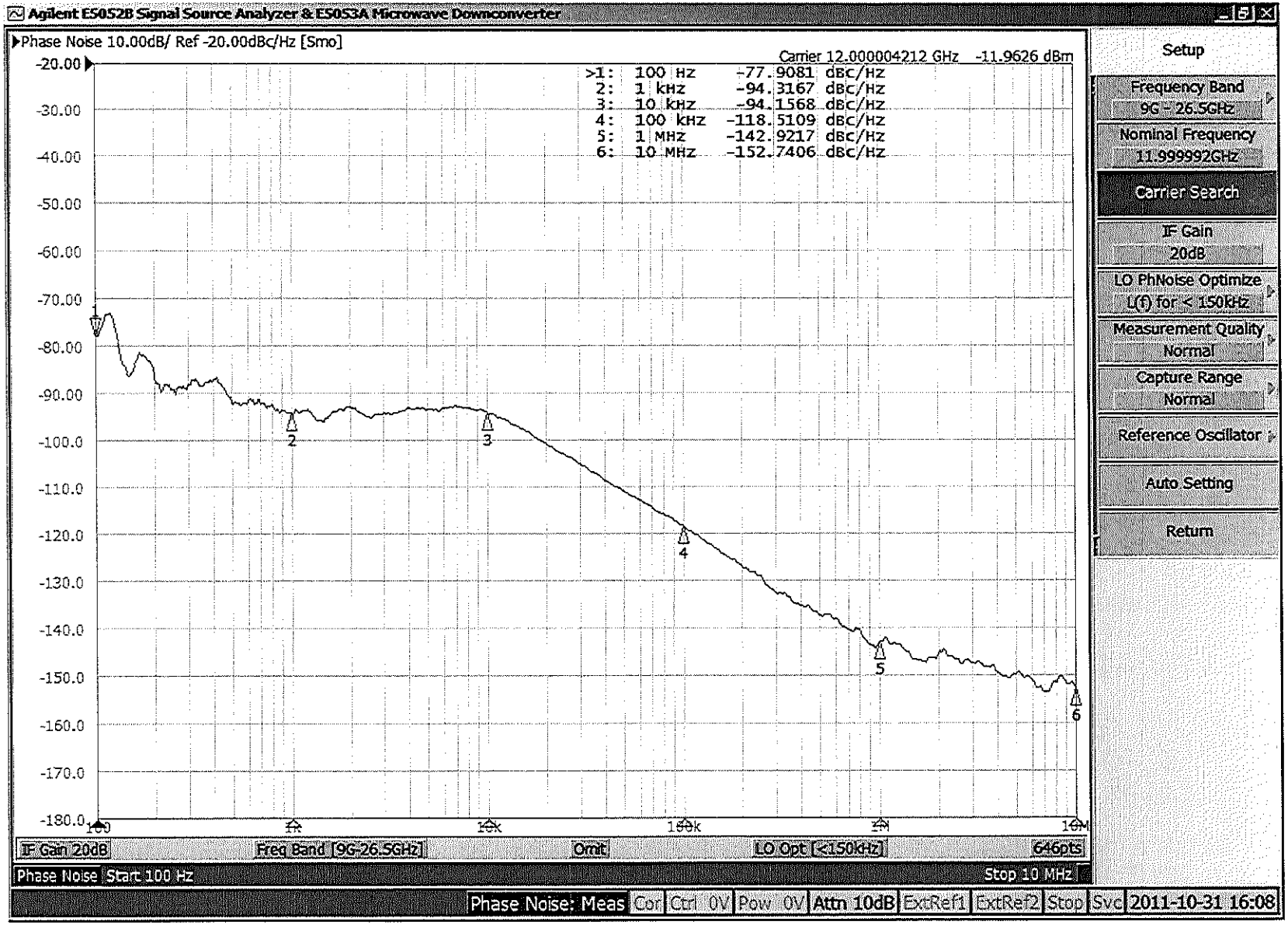
SN 17 +60 c


Agilent E5052B Signal Source Analyzer & E5053A Microwave Downconverter
Phase Noise 10.00dB/ Ref -20.00dBc/Hz [Smo]
Carrier 4.000001299 GHz -5.1030 dBm
>1: 100 Hz -83.4375 dBc/Hz
2: 1 kHz -103.3630 dBc/Hz
3: 10 kHz -106.0583 dBc/Hz
4: 100 kHz -118.1550 dBc/Hz
5: 1 MHz -142.2310 dBc/Hz
6: 10 MHz -159.6359 dBc/Hz
-20.00
-30.00
-40.00
-50.00
-60.00
-70.00
-80.00
-90.00
-100.0
-110.0
-120.0
-130.0
-140.0
-150.0
-160.0
-170.0
-180.0
100
1k
10k
100k
1M
10M
IF Gain 20dB
Freq Band [3G-10GHz]
Omit
LO Opt [<150kHz]
646pts
Phase Noise Start 100 Hz
Stop 10 MHz
Setup
Frequency Band
3G - 10GHz
Nominal Frequency
3.999992GHz
Carrier Search
IF Gain
20dB
LO PhNoise Optimize
L(f) for < 150kHz
Measurement Quality
Normal
Capture Range
Normal
Reference Oscillator
Auto Setting
Return
Phase Noise: Meas
Cor
Ctrl 0V
Pow 0V
Attn 10dB
ExtRef1
ExtRef2
Stop
Svc
2011-10-31 16:07

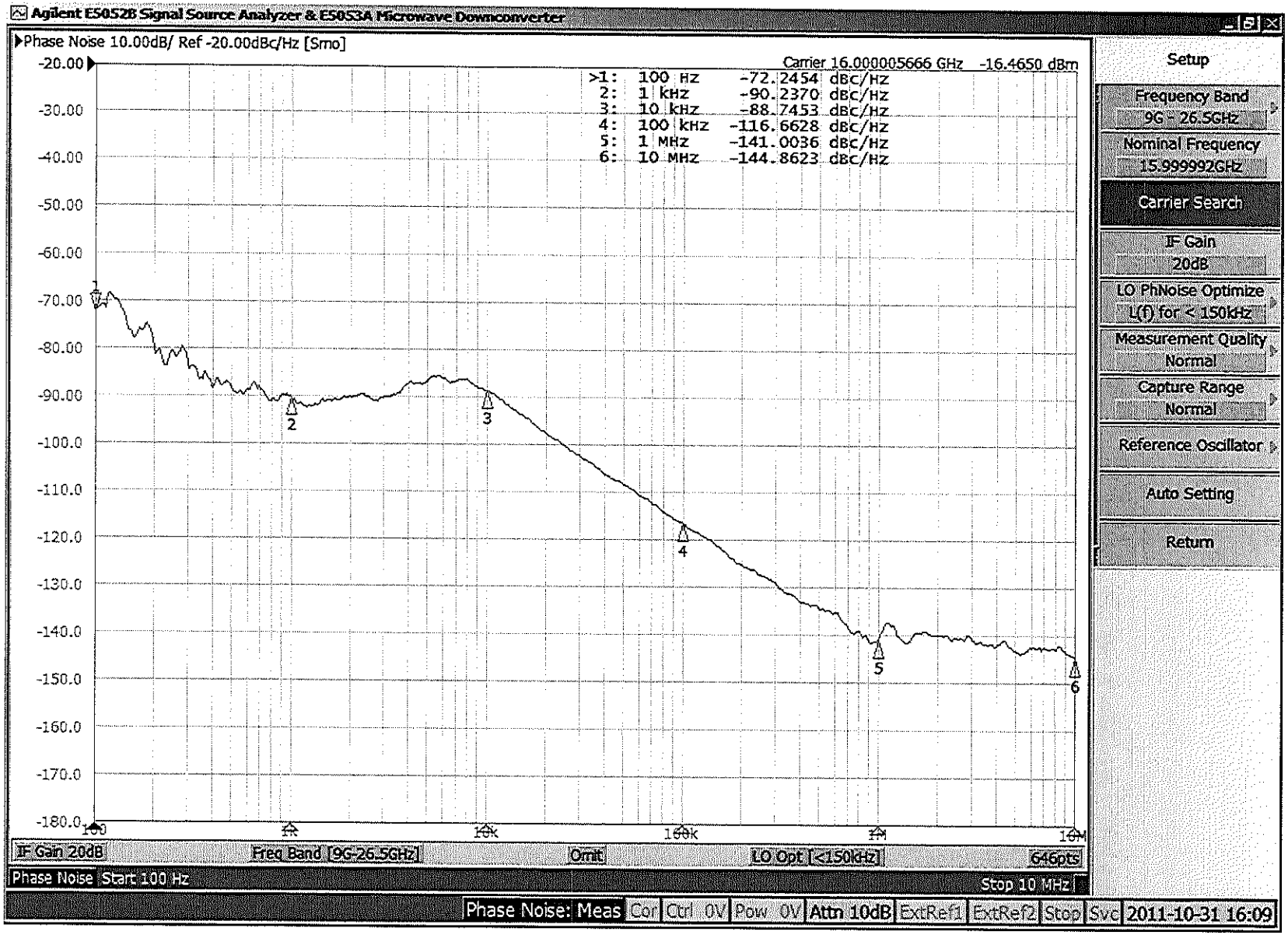
SN 17 +60 C


Agilent E5052B Signal Source Analyzer & E5053A Microwave Downconverter
Phase Noise 10.00dB/ Ref -20.00dBc/Hz [Smo]
Carrier 8.000002743 GHz -8.5032 dBm
>1: 100 Hz -86.3013 dBc/Hz
2: 1 kHz -96.4714 dBc/Hz
3: 10 kHz -99.2379 dBc/Hz
4: 100 kHz -119.3359 dBc/Hz
5: 1 MHz -144.7200 dBc/Hz
6: 10 MHz -158.9784 dBc/Hz
-20.00
-30.00
-40.00
-50.00
-60.00
-70.00
-80.00
-90.00
-100.0
-110.0
-120.0
-130.0
-140.0
-150.0
-160.0
-170.0
-180.0
100
1k
10k
100k
1M
10M
IF Gain 20dB
Freq Band [3G-10GHz]
Omit
LO Opt [<150kHz]
646pts
Phase Noise Start 100 Hz
Stop 10 MHz
Phase Noise: Meas
Cor
Ctrl 0V
Pow 0V
Attn 10dB
ExtRef1
ExtRef2
Stop
Svc
2011-10-31 16:08
Setup
Frequency Band
3G - 10GHz
Nominal Frequency
7.999976GHz
Carrier Search
IF Gain
20dB
LO PhNoise Optimize
L(f) for < 150kHz
Measurement Quality
Normal
Capture Range
Normal
Reference Oscillator
Auto Setting
Return

SN 17 +60 C


Agilent E5052B Signal Source Analyzer & E5053A Microwave Downconverter
Phase Noise 10.00dB/ Ref -20.00dBc/Hz [Smo]
Carrier 12.000004212 GHz -11.9626 dBm
>1: 100 Hz -77.9081 dBc/Hz
2: 1 kHz -94.3167 dBc/Hz
3: 10 kHz -94.1568 dBc/Hz
4: 100 kHz -118.5109 dBc/Hz
5: 1 MHz -142.9217 dBc/Hz
6: 10 MHz -152.7406 dBc/Hz
-20.00
-30.00
-40.00
-50.00
-60.00
-70.00
-80.00
-90.00
-100.0
-110.0
-120.0
-130.0
-140.0
-150.0
-160.0
-170.0
-180.0
100
1k
10k
100k
1M
10M
IF Gain 20dB
Freq Band 9G-26.5GHz
Omit
LO Opt <150kHz
646pts
Phase Noise Start 100 Hz
Stop 10 MHz
Setup
Frequency Band 9G - 26.5GHz
Nominal Frequency 11.999992GHz
Carrier Search
IF Gain 20dB
LO PhNoise Optimize L(f) for < 150kHz
Measurement Quality Normal
Capture Range Normal
Reference Oscillator
Auto Setting
Return
Phase Noise: Meas
Cor
Ctrl 0V
Pow 0V
Attn 10dB
ExtRef1
ExtRef2
Stop
Svc
2011-10-31 16:08

SN 17 +60 C


Agilent E5052B Signal Source Analyzer & E5053A Microwave Downconverter
Phase Noise 10.00dB/ Ref -20.00dBc/Hz [Smo]
Carrier 16.000005666 GHz -16.4650 dBm
>1: 100 Hz -72.2454 dBc/Hz
2: 1 kHz -90.2370 dBc/Hz
3: 10 kHz -88.7453 dBc/Hz
4: 100 kHz -116.6628 dBc/Hz
5: 1 MHz -141.0036 dBc/Hz
6: 10 MHz -144.8623 dBc/Hz
-20.00
-30.00
-40.00
-50.00
-60.00
-70.00
-80.00
-90.00
-100.0
-110.0
-120.0
-130.0
-140.0
-150.0
-160.0
-170.0
-180.0
100
10k
100k
1M
10M
IF Gain 20dB
Freq Band [9G-26.5GHz]
Omit
LO Opt [<150kHz]
646pts
Phase Noise Start 100 Hz
Stop 10 MHz
Phase Noise: Meas
Cor
Ctrl 0V
Pow 0V
Attn 10dB
ExtRef1
ExtRef2
Stop
Svc
2011-10-31 16:09
Setup
Frequency Band
9G ~ 26.5GHz
Nominal Frequency
15.999992GHz
Carrier Search
IF Gain
20dB
LO PhNoise Optimize
L(f) for < 150kHz
Measurement Quality
Normal
Capture Range
Normal
Reference Oscillator
Auto Setting
Return