

***** Step Lock Test from 2000 MHz to 8000 MHz in 1000 MHz Steps *****

Serial Number: 0015

Model Number: MLSP-2080BDG

Time: 3:40:18 PM

Date: 12/13/2011

Minimum Frequency: 2000 MHz

Maximum Frequency: 8000 MHz

Temperature: +29.8C 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 @ < 1100 mA

Total Frequency Errors: 0

Finish Time: 3:41:07 PM

Begin Random Step Lock Test from 2000 MHz to 8000 MHz (1000 Frequencies)

Total Random Frequency Errors: 0

Finish Time: 3:42:29 PM

+5.0 VDC Voltage = 5.001V Pass

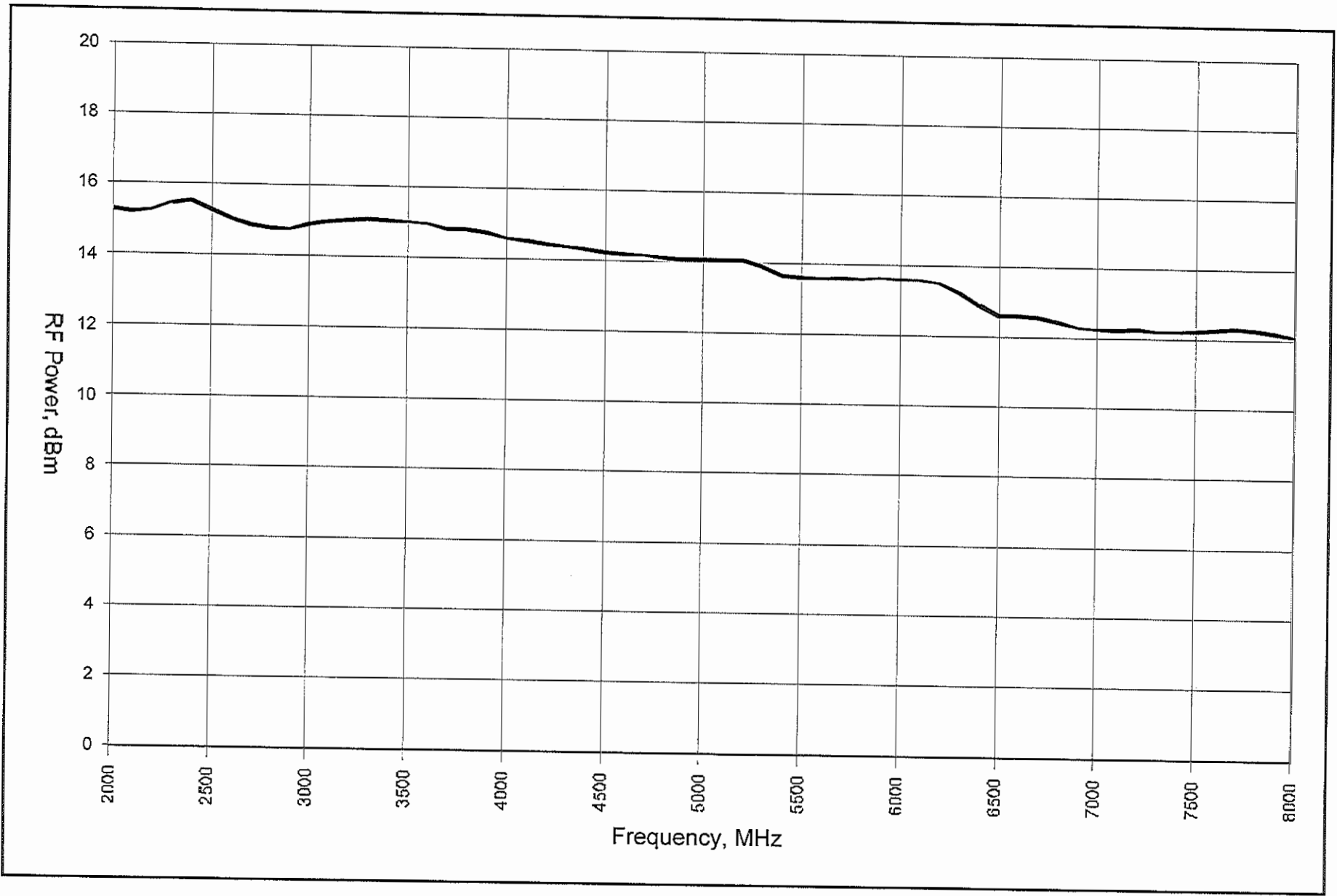
+5.0 VDC Current = 273mA Pass

+15.0 VDC Voltage = 14.996V Pass

+15.0 VDC Current = 987mA Pass

Pass

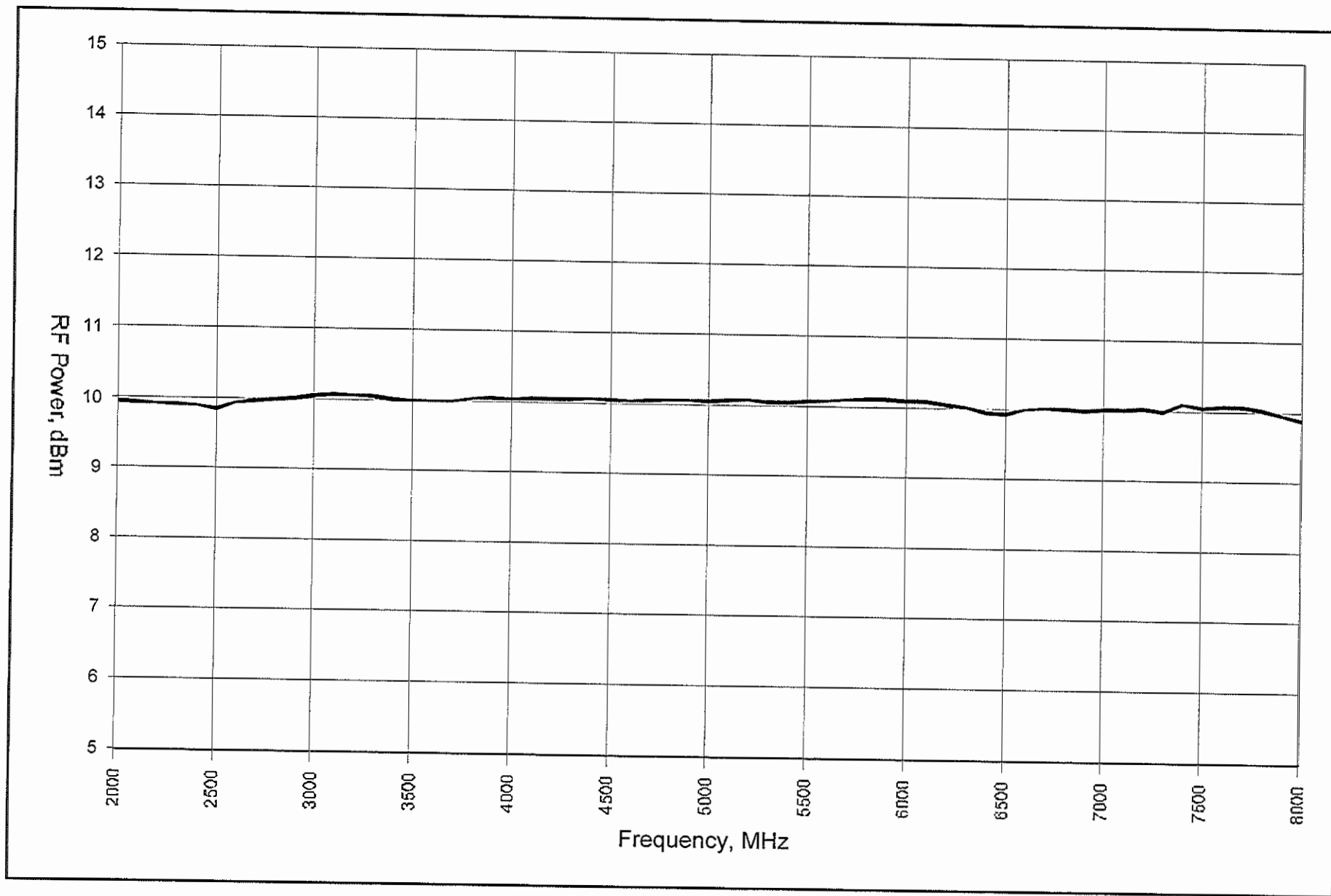
Maximum RF Output Power vs. Frequency



Print

Max Leveled Pwr: +10.0 dBm Min Leveled Pwr: -10.0 dBm Leveled Pwr Set: Max dBm Level Flatness Spec: +/-1.0 dB

Maximum RF Output Power vs. Frequency



Print

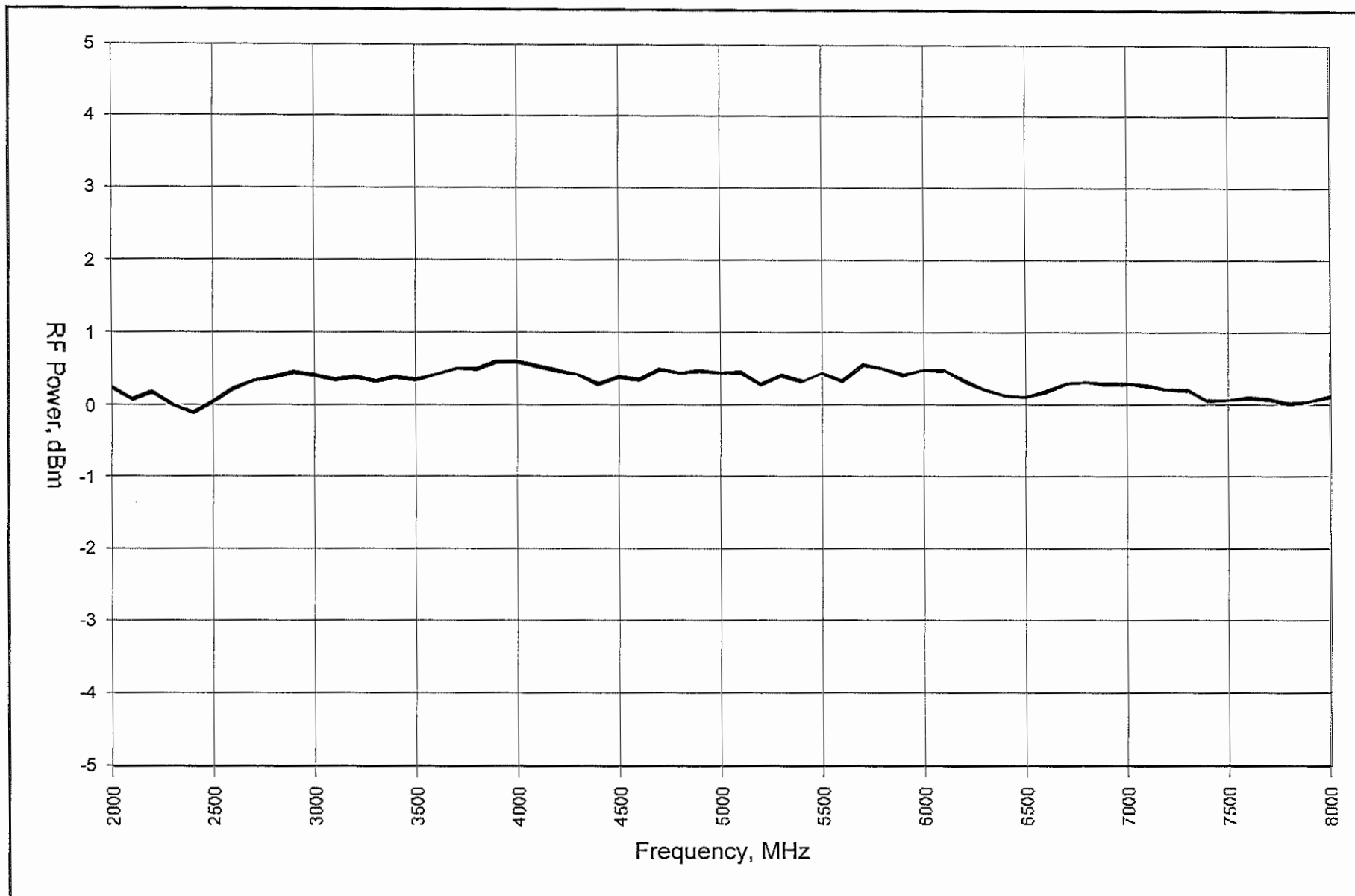
Max Leveled Pwr: +10.0 dBm

Min Leveled Pwr: -10.0 dBm

Leveled Pwr Set: 10.0 dBm

Level Flatness Spec: +/-1.0 dB

Maximum RF Output Power vs. Frequency



Print

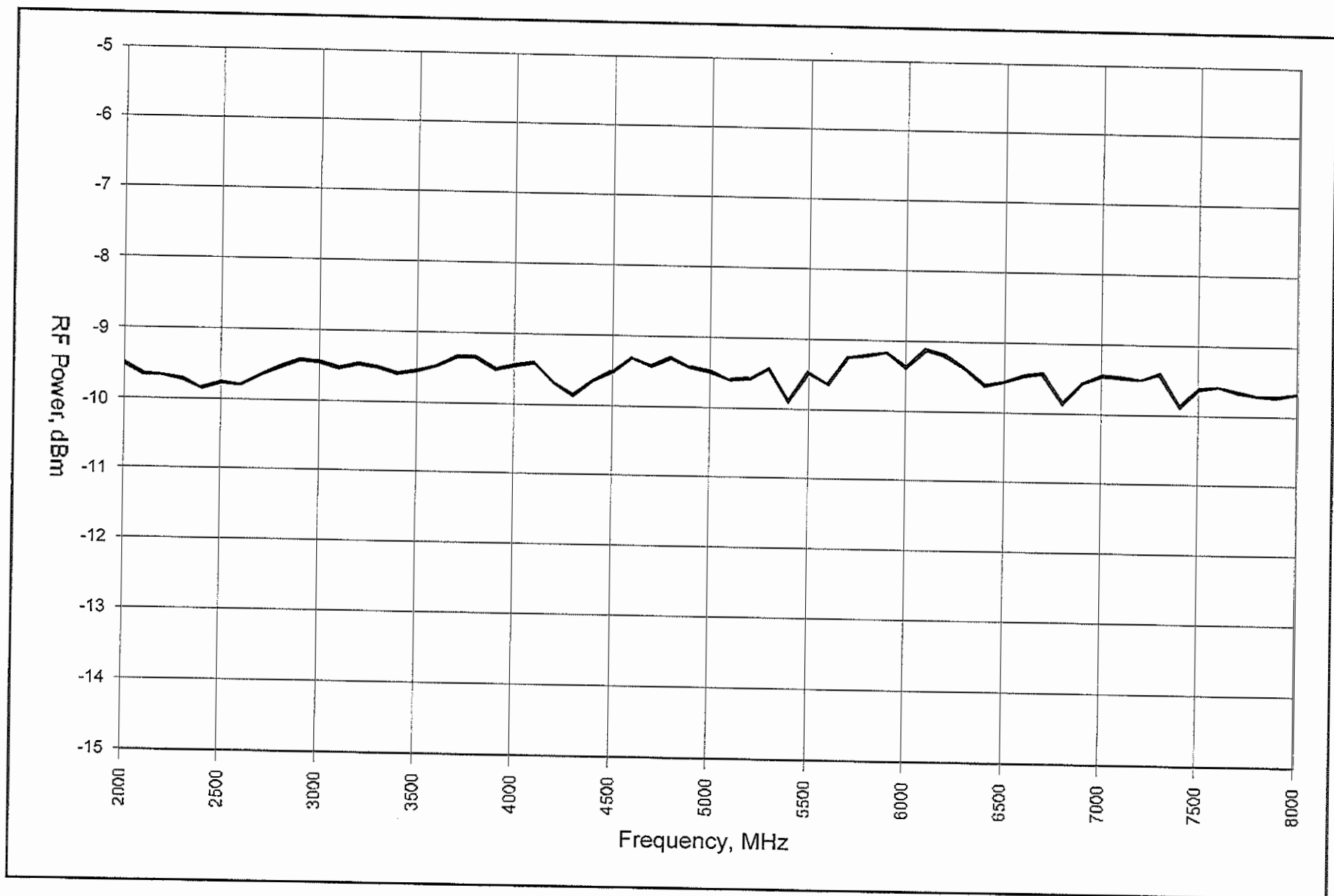
Max Levelled Pwr: +10.0 dBm

Min Levelled Pwr: -10.0 dBm

Levelled Pwr Set: 0.0 dBm

Level Flatness Spec: +/-1.0 dB

Maximum RF Output Power vs. Frequency



***** Harmonic Test from 2000.000000 MHz to 8000.000000 MHz in 100 MHz Steps *****

Model Number: MLSP-2080BDG
Serial Number: 0015
Time: 2:48:33 PM
Date: 11/3/2011
Minimum Frequency: 2000.000000 MHz
Maximum Frequency: 8000.000000 MHz
Current Unit Temperature: +32.0C Deg. C
Harmonic Spec Level (In Band): -12.0 dBc

Frequency	Level	Harm #	Status
2000 MHz	-15 dBc	3	PASS
2100 MHz	-15 dBc	3	PASS
2200 MHz	-16 dBc	3	PASS
2300 MHz	-14 dBc	2	PASS
2400 MHz	-14 dBc	2	PASS
2500 MHz	-16 dBc	3	PASS
2600 MHz	-15 dBc	3	PASS
2700 MHz	-15 dBc	3	PASS
2800 MHz	-15 dBc	3	PASS
2900 MHz	-15 dBc	3	PASS
3000 MHz	-15 dBc	3	PASS
3100 MHz	-16 dBc	3	PASS
3200 MHz	-17 dBc	3	PASS
3300 MHz	-17 dBc	2	PASS
3400 MHz	-17 dBc	2	PASS
3500 MHz	-15 dBc	2	PASS
3600 MHz	-15 dBc	2	PASS
3700 MHz	-15 dBc	2	PASS
3800 MHz	-15 dBc	2	PASS
3900 MHz	-16 dBc	2	PASS
4000 MHz	-16 dBc	2	PASS
4100 MHz	-16 dBc	2	PASS
4200 MHz	-17 dBc	2	PASS
4300 MHz	-17 dBc	2	PASS
4400 MHz	-18 dBc	2	PASS
4500 MHz	-18 dBc	2	PASS
4600 MHz	-19 dBc	2	PASS
4700 MHz	-19 dBc	2	PASS
4800 MHz	-18 dBc	3	PASS
4900 MHz	-17 dBc	3	PASS
5000 MHz	-17 dBc	3	PASS
5100 MHz	-17 dBc	2	PASS
5200 MHz	-17 dBc	2	PASS
5300 MHz	-18 dBc	2	PASS
5400 MHz	-18 dBc	3	PASS
5500 MHz	-17 dBc	3	PASS
5600 MHz	-18 dBc	3	PASS
5700 MHz	-20 dBc	2	PASS
5800 MHz	-20 dBc	2	PASS
5900 MHz	-19 dBc	2	PASS
6000 MHz	-18 dBc	2	PASS
6100 MHz	-17 dBc	2	PASS
6200 MHz	-17 dBc	2	PASS
6300 MHz	-17 dBc	2	PASS
6400 MHz	-21 dBc	2	PASS
6500 MHz	-23 dBc	3	PASS
6600 MHz	-22 dBc	3	PASS
6700 MHz	-23 dBc	3	PASS
6800 MHz	-22 dBc	3	PASS
6900 MHz	-20 dBc	3	PASS
7000 MHz	-21 dBc	3	PASS
7100 MHz	-22 dBc	3	PASS
7200 MHz	-23 dBc	3	PASS
7300 MHz	-25 dBc	3	PASS
7400 MHz	-26 dBc	3	PASS
7500 MHz	-27 dBc	3	PASS
7600 MHz	-27 dBc	3	PASS
7700 MHz	-28 dBc	3	PASS
7800 MHz	-27 dBc	3	PASS
7900 MHz	-29 dBc	3	PASS
8000 MHz	-27 dBc	3	PASS

Number of Failures: 0

Finish Time: 2:57:33 PM

Harmonic Readings complete

Pass

***** Random Spur Test from 2000 MHz to 8000 MHz *****

Serial Number: 0015
Model Number: MLSP-2080BDG
Time: 1:30:18 PM
Date: 11/4/2011
Minimum Frequency: 2000 MHz
Maximum Frequency: 8000 MHz
Analyzer Frequency Span Tested: 2 kHz to 2000 MHz
Spur Level Spec: -60.0 dBc
Number of Frequencies Tested: 50
Temperature: +31.5C Deg. C
NOVO State: UnLocked

- Frequency Tested = 5138.562 MHz
- Frequency Tested = 7053.498 MHz
- Frequency Tested = 5038.805 MHz
- Frequency Tested = 3671.002 MHz
- Frequency Tested = 7959.745 MHz
- Frequency Tested = 4748.63 MHz
- Frequency Tested = 6678.91 MHz
- Frequency Tested = 3290.539 MHz
- Frequency Tested = 6332.211 MHz
- Frequency Tested = 2178.97 MHz
- Frequency Tested = 6953.209 MHz
- Frequency Tested = 4075.118 MHz
- Frequency Tested = 6617.647 MHz
- Frequency Tested = 7615.672 MHz
- Frequency Tested = 4613.448 MHz
- Frequency Tested = 6885.936 MHz
- Frequency Tested = 2600.692 MHz
- Frequency Tested = 5233.498 MHz
- Frequency Tested = 4277.858 MHz
- Frequency Tested = 2184.814 MHz
- Frequency Tested = 4621.204 MHz
- Frequency Tested = 7531.661 MHz
- Frequency Tested = 6309.507 MHz
- Frequency Tested = 4911.527 MHz
- Frequency Tested = 6198.734 MHz
- Frequency Tested = 6849.401 MHz
- Frequency Tested = 7331.734 MHz
- Frequency Tested = 3354.437 MHz
- Frequency Tested = 2828.134 MHz
- Frequency Tested = 2536.676 MHz
- Frequency Tested = 5471.423 MHz
- Frequency Tested = 7065.003 MHz
- Frequency Tested = 4914.369 MHz
- Frequency Tested = 5372.412 MHz
- Frequency Tested = 6266.515 MHz
- Frequency Tested = 7242.99 MHz
- Frequency Tested = 5528.123 MHz
- Frequency Tested = 2319.617 MHz
- Frequency Tested = 2573.241 MHz
- Frequency Tested = 6844.945 MHz
- Frequency Tested = 6322.562 MHz
- Frequency Tested = 2074.044 MHz
- Frequency Tested = 3284.228 MHz
- Frequency Tested = 3872.306 MHz
- Frequency Tested = 3602.004 MHz
- Frequency Tested = 3192.583 MHz
- Frequency Tested = 3115.544 MHz
- Frequency Tested = 3745.348 MHz
- Frequency Tested = 4664.234 MHz
- Frequency Tested = 7996.024 MHz

Total Spur Errors: 0

Finish Time: 2:49:12 PM
Pass

***** Phase Noise Test from 2000 MHz to 8000 MHz: 100 MHz Steps *****

Model Number: MLSP-2080BDG
 Serial Number: 0015
 Time: 10:56:34 AM
 Date: 11/29/2011
 Minimum Frequency: 2000 MHz
 Maximum Frequency: 8000 MHz
 Number of Frequencies Tested: 11
 Current Unit Temperature: +38.3C Deg. C

Phase Noise Spec @ Offset:

- @ 100 Hz = -79.0 dBc/Hz
- @ 1.0 kHz = -95.0 dBc/Hz
- @ 10.0 kHz = -95.0 dBc/Hz
- @ 100 Hz = -117.0 dBc/Hz
- @ 1.0 MHz = -140.0 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
2000.000	-95.0	-106.6	-108.3	-118.6	-142.8	-158.5	Pass	5.85 dBm
2600.000	-92.1	-105.0	-106.9	-121.4	-145.7	-154.7	Pass	5.73 dBm
3200.000	-90.7	-103.5	-106.3	-123.5	-147.9	-164.1	Pass	5.77 dBm
3800.000	-87.3	-101.9	-104.7	-124.3	-148.5	-166.1	Pass	5.62 dBm
4400.000	-88.1	-100.8	-102.5	-123.8	-148.7	-164.5	Pass	5.04 dBm
5000.000	-84.3	-99.1	-101.5	-124.1	-148.7	-165.1	Pass	5.10 dBm
5600.000	-83.5	-98.4	-100.2	-124.0	-148.2	-164.9	Pass	5.01 dBm
6200.000	-83.1	-97.6	-99.6	-124.4	-148.5	-164.9	Pass	4.42 dBm
6800.000	-84.0	-96.6	-98.5	-124.0	-147.8	-164.7	Pass	4.43 dBm
7400.000	-84.5	-96.2	-97.4	-123.3	-147.4	-165.6	Pass	4.16 dBm
8000.000	-82.3	-95.6	-96.6	-123.1	-147.0	-166.5	Pass	3.71 dBm

Number of Failures: 0

Finish Time: 11:00:33 AM

Phase Noise Readings Complete

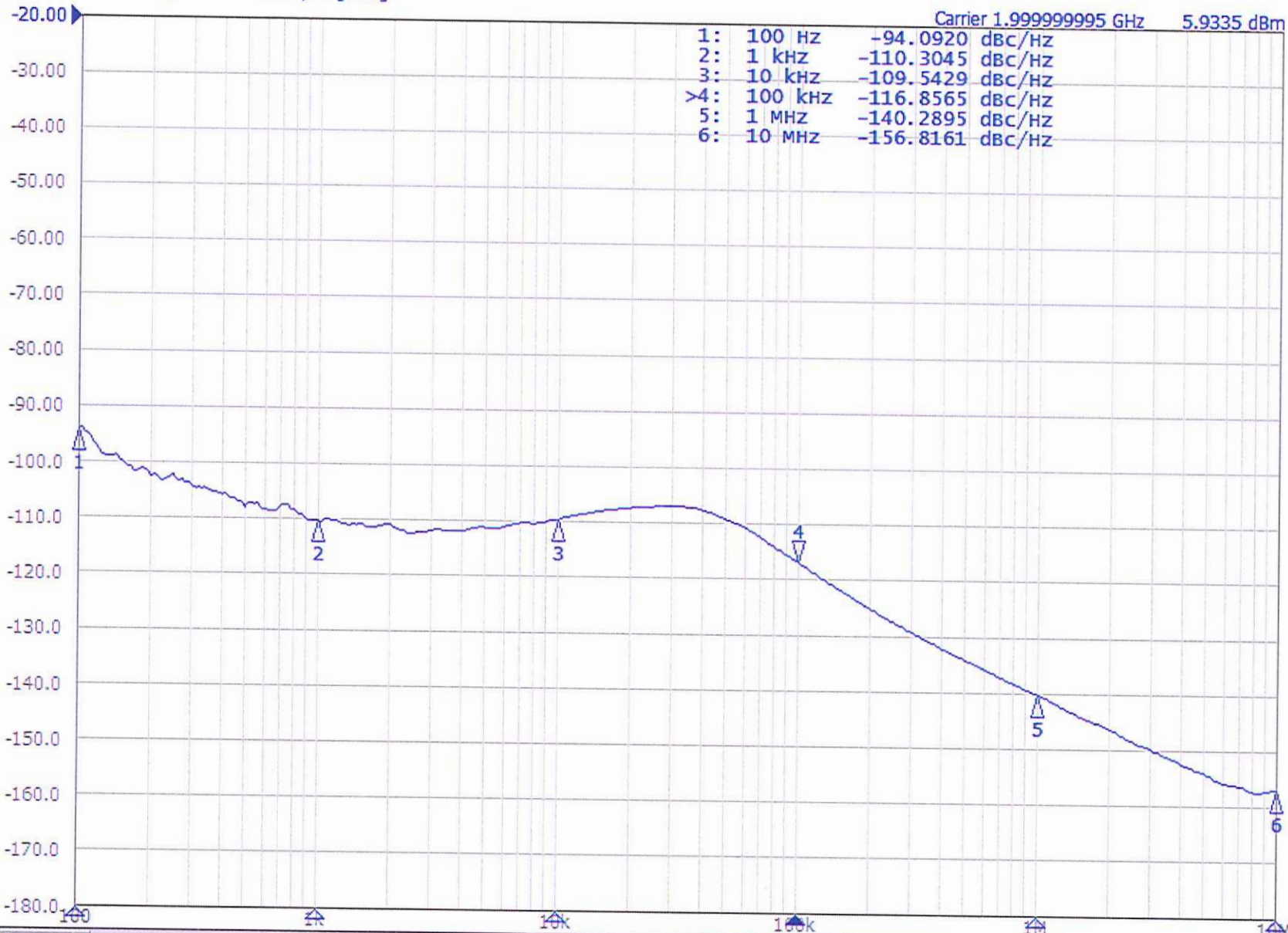
Pass

Averaging Factor 8

Phase Noise 10.00dB/ Ref -20.00dBc/Hz [Smo]

Carrier 1.999999995 GHz 5.9335 dBm

1:	100 Hz	-94.0920	dBc/Hz
2:	1 kHz	-110.3045	dBc/Hz
3:	10 kHz	-109.5429	dBc/Hz
>4:	100 kHz	-116.8565	dBc/Hz
5:	1 MHz	-140.2895	dBc/Hz
6:	10 MHz	-156.8161	dBc/Hz



Average

Averaging Restart

Avg Factor 8

Averaging ON

Correlation 1

Return

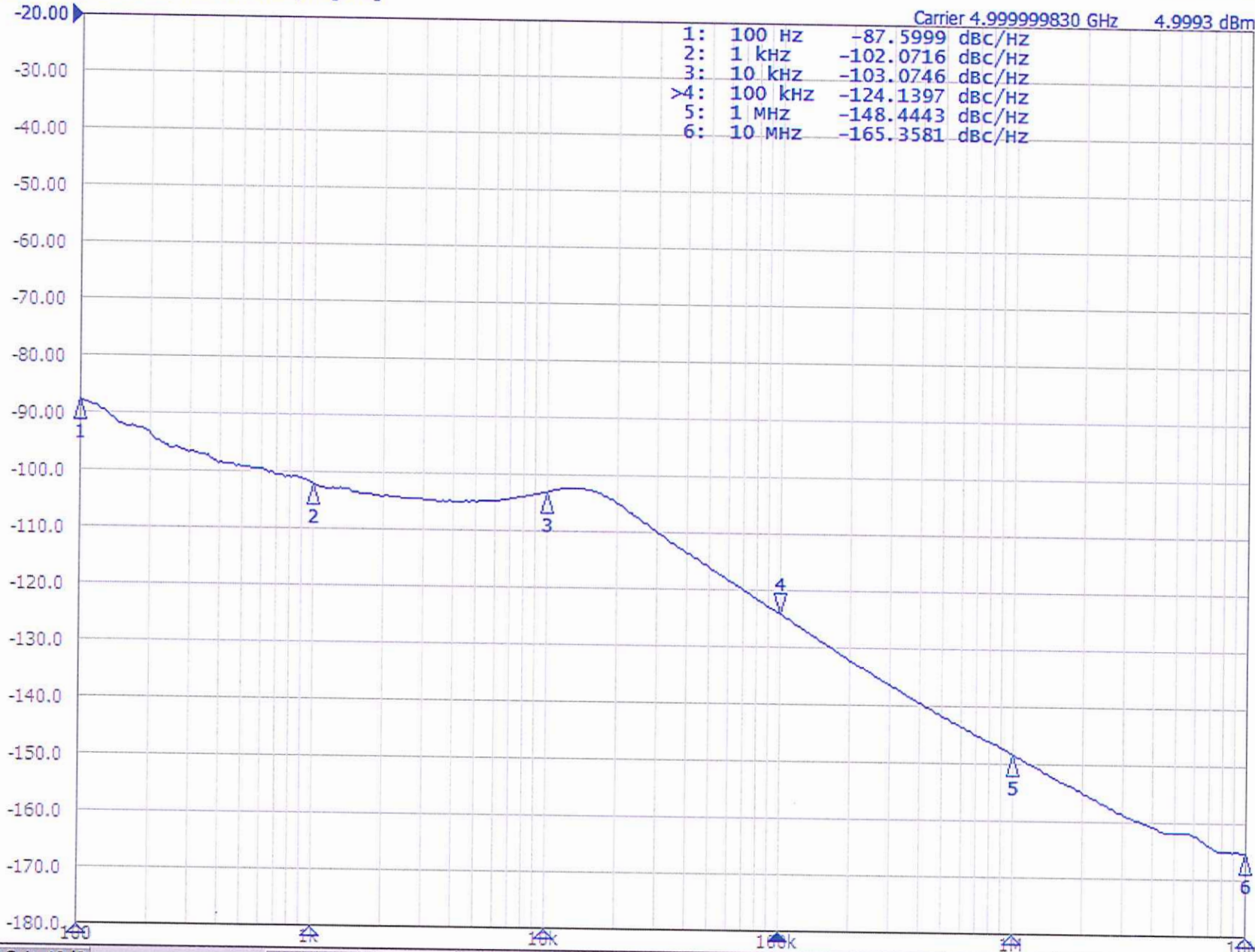
IF Gain 20dB Freq Band [250M-7GHz] Omit LO Opt [<150kHz] 646pts

Phase Noise Start 100 Hz Stop 10 MHz 6/8

Phase Noise 10.00dB/ Ref -20.00dBc/Hz [Smo]

Carrier 4.999999830 GHz 4.9993 dBm

1:	100 Hz	-87.5999 dBc/Hz
2:	1 kHz	-102.0716 dBc/Hz
3:	10 kHz	-103.0746 dBc/Hz
>4:	100 kHz	-124.1397 dBc/Hz
5:	1 MHz	-148.4443 dBc/Hz
6:	10 MHz	-165.3581 dBc/Hz



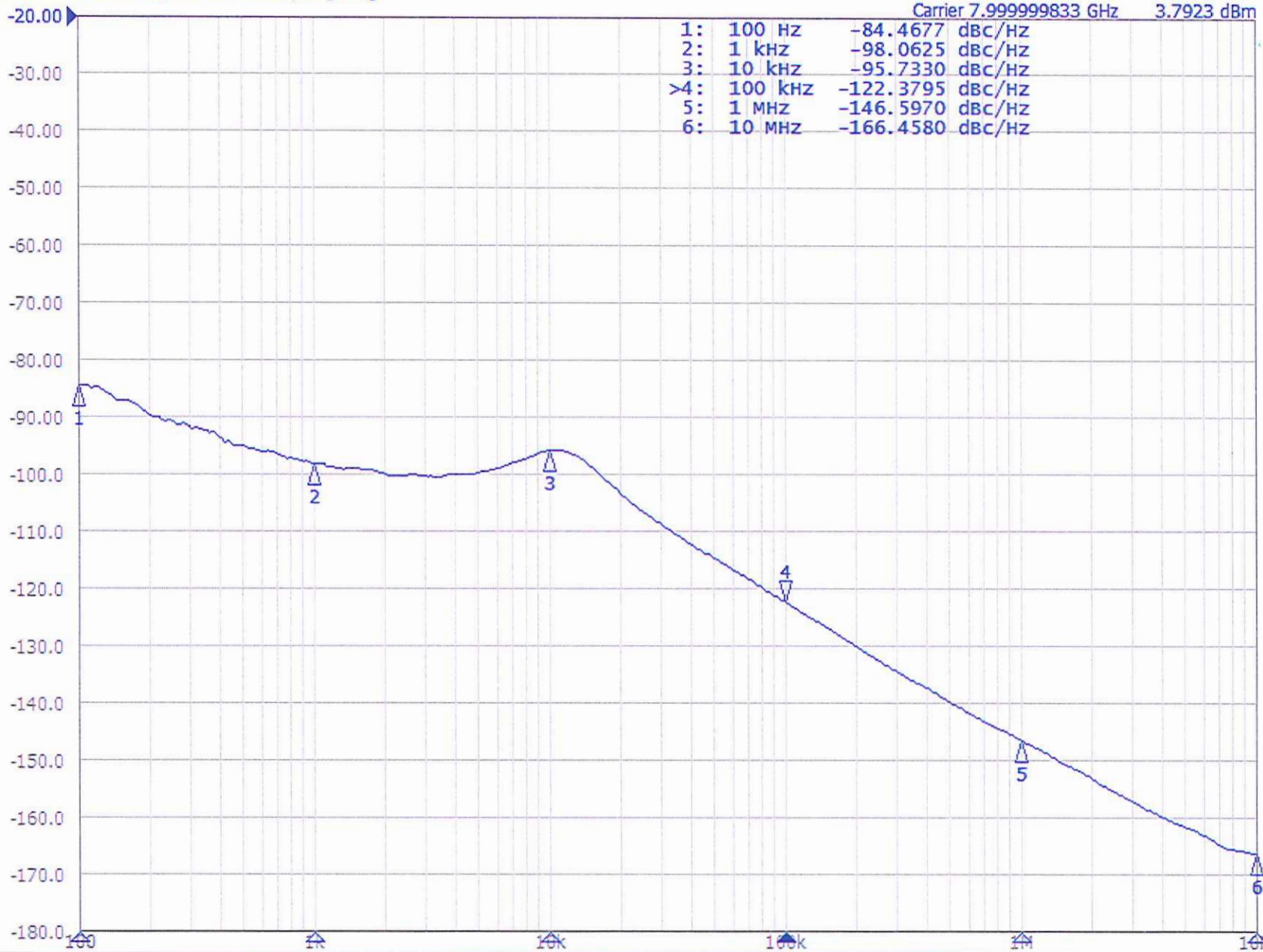
Setup

- Frequency Band: 3G - 10GHz
- Nominal Frequency: 5.000008GHz
- Carrier Search
- IF Gain: 40dB
- LO PhNoise Optimize: L(f) for < 150kHz
- Measurement Quality: Normal
- Capture Range: Normal
- Reference Oscillator
- Auto Setting
- Return

IF Gain 40dB Freq Band [3G-10GHz] Omit LO Opt [<150kHz] 646pts

Phase Noise Start 100 Hz Stop 10 MHz 8/8

Phase Noise 10.00dB/ Ref -20.00dBc/Hz [Smo]



Carrier 7.999999833 GHz 3.7923 dBm

1:	100 Hz	-84.4677 dBc/Hz
2:	1 kHz	-98.0625 dBc/Hz
3:	10 kHz	-95.7330 dBc/Hz
>4:	100 kHz	-122.3795 dBc/Hz
5:	1 MHz	-146.5970 dBc/Hz
6:	10 MHz	-166.4580 dBc/Hz

Setup

- Frequency Band
3G - 10GHz
- Nominal Frequency
8.000008GHz
- Carrier Search
- IF Gain
50dB
- LO PhNoise Optimize
L(f) for < 150kHz
- Measurement Quality
Normal
- Capture Range
Normal
- Reference Oscillator
- Auto Setting
- Return

IF Gain 50dB Freq Band [3G-10GHz] Omit LO Opt [<150kHz] 646pts

Phase Noise Start 100 Hz Stop 10 MHz 8/8