APPENDIX D

DATA SHEETS

SPURIOUS RADIATED EMISSIONS FOR THE TRANSMITTER PORTION

Test location: Compatible Electronics
Customer : NET NEAR U Date : 8/ 8/2001
Manufacturer : SAME Time : 23.50
EUT name : WIRELESS ACCESS POINT Model: RAP-1
Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
Distance correction factor(20*log(test/spec)) : 0.00
Test Mode :
BOTH DIGITAL AND TRANSMITTER PORTIONS OF EUT ENABLED
POWER ADAPTER M/N:T920-P5P-ND

Pol	Freq	Rdng	Cable loss	Ant factor	Amp gain	Cor'd rdg = R	limit = L	Delta R-L
	MHz	dBuV	dB	dB	dB	dBuV	dBuV/m	dB
1V IS A READING FROM THE DIGITAL PORTION OF THE EUT								
1V	60.05	69.20	1.20	8.52	39.20	39.72	40.00	-0.28
2V	73.18	50.40	1.30	8.70	38.74	21.66	40.00	-18.34
3V	80.04	63.40	1.30	8.17	38.60	34.27	40.00	-5.73
4V	114.64	57.00	1.62	9.88	38.99	29.50	43.50	-14.00
5V IS A READING FROM THE DIGITAL PORTION OF THE EUT								
5V	120.37	72.80	1.66	10.43	39.11	45.78	43.50	2.28
6V	128.95	52.20	1.75	11.90	39.14	26.71	43.50	-16.79
7V	130.04	55.50	1.76	11.98	39.12	30.12	43.50	-13.38
8V TO 15V ARE READINGS FROM THE DIGITAL PORTION OF THE EUT								
8V	133.37	75.50	1.80	12.22	39.07	50.45	43.50	6.95
9V	133.33	66.00	1.80	12.22	39.07	40.95	43.50	-2.55
10V	166.68	65.50	2.00	14.13	38.80	42.83	43.50	-0.67
11V	233.33	62.80	2.30	15.88	38.80	42.18	46.00	-3.82
12V	266.67	55.00	2.70	17.70	38.93	36.47	46.00	-9.53
13V	140.09	77.70	1.88	12.70	38.96	53.32	43.50	9.82
14V	160.04	73.70	2.00	13.58	38.80	50.48	43.50	6.98
15V	180.04	65.10	2.04	14.84	38.84	43.14	43.50	-0.36
16V	192.03	62.50	2.14	14.82	38.94	40.52	43.50	-2.98
17V	196.58	54.40	2.17	14.81	38.97	32.41	43.50	-11.09
18V IS A READING FROM THE DIGITAL PORTION OF THE EUT								
18V	200.04	66.80	2.20	14.80	39.00	44.80	43.50	1.30
19V	215.83	55.60	2.20	15.31	38.87	34.24	43.50	-9.26
20V AND 21V ARE READINGS FROM THE DIGITAL PORTION OF THE EUT								
20V	220.04	73.10	2.20	15.45	38.84	51.91	46.00	5.91
21V	240.04	64.70	2.38	16.10	38.80	44.38	46.00	-1.62
22V	245.74	53.50	2.45	16.28	38.80	33.43	46.00	-12.57
23V	257.81	52.50	2.59	17.02	38.86	33.25	46.00	-12.75

Test location: Compatible Electronics
Customer : NET NEAR U Date : 8/ 8/2001
Manufacturer : SAME Time : 23.50
EUT name : WIRELESS ACCESS POINT Model: RAP-1
Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
Distance correction factor(20*log(test/spec)) : 0.00
Test Mode :
BOTH DIGITAL AND TRANSMITTER PORTIONS OF EUT ENABLED
POWER ADAPTER M/N:T920-P5P-ND

Pol	Freq	Rdng	Cable loss	Ant factor	Amp gain	Cor'd rdg = R	limit = L	Delta R-L
	MHz	dBuV	dB	dB	dB	dBuV	dBuV/m	Db
24V	258.35	51.10	2.60	17.06	38.87	31.89	46.00	-14.11
25V AND 26V ARE READINGS FROM THE DIGITAL PORTION OF THE EUT								
25V	260.09	69.80	2.62	17.20	38.88	50.74	46.00	4.74
26V	280.05	61.50	2.80	18.73	38.98	44.05	46.00	-1.95
27V	287.89	55.10	2.80	19.33	38.95	38.28	46.00	-7.72
28H IS A READING FROM THE DIGITAL PORTION OF THE EUT								
28H	300.04	71.40	2.80	12.96	38.90	48.26	46.00	2.26
29H	308.24	50.30	2.83	13.29	38.90	27.52	46.00	-18.48
30H	315.04	53.30	2.86	13.55	38.90	30.81	46.00	-15.19
31H	320.04	63.00	2.88	13.75	38.90	40.73	46.00	-5.27
32H	320.05	65.80	2.88	13.75	38.90	43.53	46.00	-2.47
33H	325.05	52.70	2.90	13.95	38.90	30.65	46.00	-15.35
34H	333.23	60.50	2.93	14.27	38.90	38.81	46.00	-7.19
35H	336.00	54.30	2.94	14.38	38.90	32.73	46.00	-13.27
36H IS A READING FROM THE DIGITAL PORTION OF THE EUT								
36H	340.03	70.20	2.96	14.54	38.90	48.80	46.00	2.80
37H	341.62	56.70	2.97	14.60	38.90	35.37	46.00	-10.63
38H	343.99	54.20	2.98	14.70	38.90	32.97	46.00	-13.03
39H	350.04	54.50	3.00	14.94	38.90	33.54	46.00	-12.46
40H	352.11	63.70	3.01	15.02	38.89	42.84	46.00	-3.16
41H	358.29	60.40	3.05	15.26	38.85	39.86	46.00	-6.14
42H IS A READING FROM THE DIGITAL PORTION OF THE EUT								
42H	366.62	68.90	3.10	15.59	38.80	48.79	46.00	2.79
43H	372.34	62.00	3.13	15.82	38.77	42.19	46.00	-3.81
44H	374.91	56.90	3.15	15.92	38.75	37.22	46.00	-8.78
45H	380.04	61.90	3.18	16.12	38.72	42.48	46.00	-3.52
46H	383.91	46.50	3.20	16.27	38.70	27.28	46.00	-18.72

Test location: Compatible Electronics
Customer : NET NEAR U Date : 8/ 8/2001
Manufacturer : SAME Time : 23.50
EUT name : WIRELESS ACCESS POINT Model: RAP-1
Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
Distance correction factor(20*log(test/spec)) : 0.00
Test Mode :
BOTH DIGITAL AND TRANSMITTER PORTIONS OF EUT ENABLED
POWER ADAPTER M/N:T920-P5P-ND

Pol	Freq	Rdng	Cable loss	Ant factor	Amp gain	Cor'd rdg = R	limit = L	Delta R-L
	MHz	dBuV	dB	dB	dB	dBuV	dBuV/m	dB
47H	386.67	52.30	3.22	16.38	38.68	33.22	46.00	-12.78
48H	391.60	50.30	3.25	16.58	38.65	31.48	46.00	-14.52
49H IS A READING FROM THE DIGITAL PORTION OF THE EUT								
49H	400.10	63.50	3.30	16.91	38.60	45.11	46.00	-0.89
50H	415.28	55.90	3.27	16.88	38.57	37.48	46.00	-8.52
51H	420.05	52.80	3.26	16.87	38.56	34.37	46.00	-11.63
52H	429.59	46.50	3.24	16.86	38.54	28.06	46.00	-17.94
53H	433.25	62.30	3.23	16.85	38.53	43.85	46.00	-2.15
54H	440.03	50.10	3.22	16.84	38.52	31.64	46.00	-14.36
55H	443.88	48.70	3.21	16.83	38.51	30.23	46.00	-15.77
56H	460.07	55.10	3.26	16.80	38.54	36.62	46.00	-9.38
57H	500.03	62.50	3.50	16.73	38.70	44.03	46.00	-1.97
58H	510.64	50.50	3.59	16.69	38.64	32.14	46.00	-13.86
59H	533.22	50.70	3.77	16.59	38.50	32.56	46.00	-13.44
60H	560.09	51.90	3.88	16.48	38.48	33.78	46.00	-12.22
61H	600.04	56.30	3.80	16.32	38.80	37.62	46.00	-8.38
62H	640.06	53.20	4.12	17.49	38.56	36.25	46.00	-9.75
63H	660.09	48.10	4.24	18.07	38.52	31.89	46.00	-14.11
64H	704.17	53.10	4.43	19.33	38.56	38.30	46.00	-7.70
65V	704.24	51.00	4.43	19.33	38.56	36.20	46.00	-9.80
66H	715.92	47.10	4.50	19.58	38.44	32.73	46.00	-13.27
67H	720.05	51.90	4.52	19.67	38.40	37.69	46.00	-8.31
68H	773.21	45.90	4.79	20.80	38.01	33.49	46.00	-12.51
59H	782.40	47.70	4.83	21.00	37.97	35.55	46.00	-10.45
70H	792.20	49.10	4.87	21.20	37.93	37.24	46.00	-8.76
71H	799.84	50.70	4.90	21.37	37.90	39.07	46.00	-6.93
72H	825.09	45.10	4.80	21.56	37.95	33.51	46.00	-12.49
73H	830.51	49.30	4.78	21.60	37.96	37.72	46.00	-8.28
74H	840.03	43.70	4.74	21.67	37.98	32.13	46.00	-13.87
75H	859.16	49.20	4.75	21.82	37.96	37.81	46.00	-8.19
76H	869.45	42.20	4.82	21.90	37.92	30.99	46.00	-15.01
77H	887.73	48.30	4.93	22.04	37.85	37.41	46.00	-8.59
78H	900.10	48.30	5.00	22.13	37.80	37.63	46.00	-8.37

Test location: Compatible Electronics
Customer : NET NEAR U Date : 8/ 8/2001
Manufacturer : SAME Time : 23.50
EUT name : WIRELESS ACCESS POINT Model: RAP-1
Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
Distance correction factor(20*log(test/spec)) : 0.00
Test Mode :
BOTH DIGITAL AND TRANSMITTER PORTIONS OF EUT ENABLED
POWER ADAPTER M/N:T920-P5P-ND

Pol	Freq	Rdng	Cable loss	Ant factor	Amp gain	Cor'd rdg = R	limit = L	Delta R-L
	MHz	dBuV	dB	dB	dB	dBuV	dBuV/m	dB
79H	916.41	42.30	5.10	22.14	37.50	32.03	46.00	-13.97
80H IS READING WITH BOTH PORTIONS OF EUT OPERATING								
80H	300.06	71.00	2.80	12.96	38.90	47.86	46.00	1.86
81H IS READING WITH TRANSMITTER PORTION DISABLED								
81H	300.08	73.10	2.80	12.96	38.90	50.96	46.00	3.96
82H IS READING WITH TRANSMITTER PORTION DISABLED								
82H	704.18	38.80	4.43	19.33	38.56	24.00	46.00	-22.00
83V IS READING WITH BOTH PORTIONS OF EUT OPERATING								
83V	220.04	69.70	2.20	15.45	38.84	48.51	46.00	2.51
84V IS READING WITH TRANSMITTER DISABLED								
84V	220.04	70.00	2.20	15.45	38.84	48.81	46.00	2.81
85V IS READING WITH BOTH PORTIONS OF EUT OPERATING								
85V	140.04	80.40	1.88	12.70	38.96	56.02	43.50	12.52
86V IS READING WITH TRANSMITTER DISABLED								
86V	140.04	78.50	1.88	12.70	38.96	54.12	43.50	10.62

Test location: Compatible Electronics
Customer : NET NEAR U Date : 8/ 8/2001
Manufacturer : SAME Time : 23.59
EUT name : WIRELESS ACCESS POINT Model: RAP-1
Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
Distance correction factor(20*log(test/spec)) : 0.00
Test Mode :
BOTH DIGITAL AND TRANSMITTER PORTIONS OF EUT ENABLED
POWER ADAPTER M/N:T920-P5P-ND

NO EMISSIONS FOUND FROM 10 kHz TO 30 MHz FOR THE EUT IN BOTH THE VERTICAL AND HORIZONTAL POLARIZATIONS

SPURIOUS RADIATED EMISSIONS FOR THE DIGITAL PORTION

Test location: Compatible Electronics
Customer : NET NEAR U Date: 8/ 7/2001
Manufacturer : SAME Time: 21.46
EUT name : WIRELESS ACCESS POINT Model: RAP-1
Specification: Fcc_A Test distance: 10.0mtrs Lab: D
Distance correction factor(20*log(test/spec)) : 0.00
Test Mode :
POWER ADAPTER M/N: T920-P5P-ND
TRANSMITTER AND DIGITAL FULLY OPERATIONAL

Pol	Freq	Rdng	Cable loss	Ant factor	Amp gain	Cor'd rdg = R	limit =L	Delta R-L
	MHz	dBuV	dB	dB	dB	dBuV	dBuV/m	dB
1V	40.11	58.40	1.60	13.22	39.20	34.02	39.08	-5.06
2V	60.06	59.30	1.70	8.52	39.20	30.32	39.08	-8.76
3V	60.06	59.60	1.70	8.52	39.20	30.62Qp	39.08	-8.46
4V	80.11	52.90	1.70	8.17	38.60	24.17	39.08	-14.91
5V	120.06	61.20	2.16	10.34	39.10	34.60	43.50	-8.90
6V	133.36	55.60	2.30	12.22	39.07	31.05	43.50	-12.45
7V	140.10	61.80	2.38	12.70	38.96	37.92	43.50	-5.58
8V	150.04	46.20	2.50	12.95	38.80	22.85	43.50	-20.65
9V	160.10	60.70	2.74	13.59	38.80	38.23	43.50	-5.27
10V	180.09	54.10	3.10	14.84	38.84	33.20	43.50	-10.30
11V	196.69	45.00	3.10	14.81	38.97	23.93	43.50	-19.57
12V	200.04	54.00	3.10	14.80	39.00	32.90	43.50	-10.6
13V	220.10	63.60	3.26	15.45	38.84	43.47	46.40	-2.93
14V	233.34	49.20	3.40	15.88	38.80	29.68	46.40	-16.72
15V	240.05	51.50	3.48	16.10	38.80	32.28	46.40	-14.12
16V	245.76	45.60	3.55	16.28	38.80	26.63	46.40	-19.77
17V	250.06	46.70	3.60	16.42	38.80	27.92	46.40	-18.48
18V	253.06	43.20	3.62	16.66	38.82	24.65	46.40	-21.75
19V	257.81	41.90	3.66	17.02	38.86	23.72	46.40	-22.68
20V	260.05	55.70	3.68	17.19	38.88	37.69	46.40	-8.71
21V	275.04	45.20	3.80	18.34	39.00	28.34	46.40	-18.06
22V	280.05	58.70	3.80	18.73	38.98	42.25	46.40	-4.15
23V	288.00	47.20	3.80	19.34	38.95	31.39	46.40	-15.01
24V	294.93	45.10	3.80	19.87	38.92	29.85	46.40	-16.55
25V	300.00	54.30	3.80	12.96	38.90	32.16	46.40	-14.24

Test location: Compatible Electronics
Customer : NET NEAR U Date: 8/ 8/2001
Manufacturer : SAME Time: 0.06
EUT name : WIRELESS ACCESS POINT Model: RAP-1
Specification: Fcc_A Test distance: 10.0mtrs Lab: D
Distance correction factor(20*log(test/spec)) : 0.00
Test Mode :
POWER ADAPTER M/N: T920-P5P-ND
BOTH DIGITAL AND TRANSMITTER OPERATING

Pol	Freq	Rdng	Cable loss	Ant factor	Amp gain	Cor'd rdg = R	limit =L	Delta R-L
	MHz	dBuV	dB	dB	dB	dBuV	dBuV/m	dB
1H	300.06	65.20	3.80	12.96	38.90	43.06	46.40	-3.34
2H	305.04	45.30	3.83	13.16	38.90	23.39	46.40	-23.01
3H	308.31	49.20	3.85	13.29	38.90	27.44	46.40	-18.96
4H	310.11	45.50	3.86	13.36	38.90	23.82	46.40	-22.58
5H	315.08	43.50	3.89	13.56	38.90	22.04	46.40	-24.36
6H	319.04	43.10	3.91	13.71	38.90	21.82	46.40	-24.58
7H	320.05	64.60	3.92	13.75	38.90	43.37	46.40	-3.03
8H	325.06	47.90	3.95	13.95	38.90	26.9	46.40	-19.5
9H	330.05	46.20	3.98	14.15	38.90	25.42	46.40	-20.98
10H	333.30	57.30	4.00	14.28	38.90	36.67	46.40	-9.73
11H	333.30	56.52	4.00	14.28	38.90	35.89Qp	46.40	-10.51
10H AND 11H ARE BOTH NOISE FROM DIGITAL PORTION OF EUT								
12H	335.99	47.30	4.02	14.38	38.90	26.8	46.40	-19.6
13H	340.05	59.00	4.04	14.54	38.90	38.68	46.40	-7.72
14H	341.63	49.00	4.05	14.60	38.90	28.75	46.40	-17.65
15H	343.99	46.40	4.06	14.70	38.90	26.26	46.40	-20.14
16H	350.07	47.70	4.10	14.94	38.90	27.84	46.40	-18.56
17H	352.12	48.60	4.11	15.02	38.89	28.84	46.40	-17.56
18H	358.26	48.60	4.13	15.26	38.85	29.14	46.40	-17.26
19H	360.05	53.30	4.14	15.33	38.84	33.93	46.40	-12.47
20H	366.59	57.50	4.17	15.59	38.80	38.45	46.40	-7.95
21H	366.59	55.86	4.17	15.59	38.80	36.81Qp	46.40	-9.59
20H AND 21H ARE BOTH NOISE FROM THE DIGITAL PORTION OF THE EUT								
22H	372.36	50.30	4.19	15.82	38.77	31.54	46.40	-14.86
23H	375.08	46.50	4.20	15.93	38.75	27.87	46.40	-18.53
24H	380.10	56.50	4.22	16.12	38.72	38.12	46.40	-8.28
25H	386.67	49.70	4.25	16.38	38.68	31.65	46.40	-14.75
26H	391.61	47.60	4.27	16.58	38.65	29.79	46.40	-16.61
27H	400.06	59.80	4.30	16.91	38.60	42.41	46.40	-3.99
28H	400.97	50.70	4.30	16.91	38.60	33.31	46.40	-13.09

Test location: Compatible Electronics
Customer : NET NEAR U Date: 8/ 8/2001
Manufacturer : SAME Time: 0.06
EUT name : WIRELESS ACCESS POINT Model: RAP-1
Specification: Fcc_A Test distance: 10.0mtrs Lab: D
Distance correction factor(20*log(test/spec)) : 0.00
Test Mode :
POWER ADAPTER M/N: T920-P5P-ND
BOTH DIGITAL AND TRANSMITTER OPERATING

Pol	Freq	Rdng	Cable loss	Ant factor	Amp gain	Cor'd rdg = R	limit =L	Delta R-L
	MHz	dBuV	dB	dB	dB	dBuV	dBuV/m	dB
29H	415.31	47.60	4.33	16.88	38.57	30.24	46.40	-16.16
30H	420.06	48.90	4.34	16.87	38.56	31.55	46.40	-14.85
31H	429.60	48.20	4.36	16.86	38.54	30.87	46.40	-15.53
32H	433.25	56.70	4.37	16.85	38.53	39.38	46.40	-7.02
32H IS NOISE FROM THE DIGITAL PORTION OF EUT								
33H	440.11	45.60	4.38	16.84	38.52	28.3	46.40	-18.1
34H	466.58	46.10	4.50	16.79	38.57	28.82	46.40	-17.58
35H	479.92	42.20	4.58	16.77	38.62	24.92	46.40	-21.48
36H	486.90	41.00	4.62	16.75	38.65	23.72	46.40	-22.68
37H	500.04	53.70	4.70	16.73	38.70	36.43	46.40	-9.97
38H	510.54	44.70	4.76	16.69	38.64	27.51	46.40	-18.89
39H	520.05	48.70	4.82	16.65	38.58	31.59	46.40	-14.81
40H	529.83	44.20	4.88	16.61	38.52	27.16	46.40	-19.24
41H	533.19	46.40	4.90	16.59	38.50	29.39	46.40	-17.01
42H	566.54	48.70	5.10	16.46	38.53	31.72	46.40	-14.68
43H	600.09	49.90	5.30	16.32	38.80	32.72	46.40	-13.68
44H	602.49	39.30	5.33	16.39	38.79	22.24	46.40	-24.16
45H	602.49	38.50	5.33	16.39	38.79	21.44	46.40	-24.96
46H	602.49	43.40	5.33	16.39	38.79	26.34	46.40	-20.06
47H	602.49	38.30	5.33	16.39	38.79	21.24	46.40	-25.16
48H	640.10	46.30	5.78	17.49	38.56	31.01	46.40	-15.39
49H	660.06	43.50	5.86	18.07	38.52	28.91	46.40	-17.49
50H	700.80	45.20	5.71	19.26	38.59	31.57	46.40	-14.83
51H IS AN AMBIENT READING								
51H	780.00	43.50	6.24	20.94	37.98	32.7	46.40	-13.7
52H	801.85	41.20	6.20	21.38	37.90	30.87	46.40	-15.53

HARMONIC RADIATED EMISSIONS FOR THE TRANSMITTER PORTION

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

COMPANY	**NET NEAR U**	**DATE**	**8/14/01, 9/24/01**
EUT	**WIRELESS ACCESS POINT**	**DUTY CYCLE**	**N/A**
MODEL	**RAP-1**	**PEAK TO AVG**	**N/A**
S/N	**N/A**	**TEST DIST.**	**3 METERS**
TEST ENGINEER	**KYLE FUJIMOTO**	**LAB**	**D**

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
2412.0000	71.9	A	H	1.0	20	X	LOW	30.5	3.6	0.0	**106.0**			
2412.0000	70.9	A	H	1.0	45	Y	LOW	30.5	3.6	0.0	**105.0**			
2412.0000	75.0	A	V	1.0	45	X	LOW	30.5	3.6	0.0	**109.1**			
2412.0000	76.0	A	V	1.5	135	Y	LOW	30.5	3.6	0.0	**110.1**			
2438.0000	70.5	A	H	1.8	45	X	MID	30.6	3.5	0.0	**104.6**			
2438.0000	70.1	A	H	1.8	90	Y	MID	30.6	3.5	0.0	**104.2**			
2438.0000	75.8	A	V	2.0	20	X	MID	30.6	3.5	0.0	**109.9**			
2438.0000	74.7	A	V	2.5	20	Y	MID	30.6	3.5	0.0	**108.8**			
2463.0000	70.2	A	H	2.0	45	X	HIGH	30.6	3.5	0.0	**104.3**			
2463.0000	70.4	A	H	1.0	45	Y	HIGH	30.6	3.5	0.0	**104.5**			
2463.0000	75.8	A	V	2.0	20	X	HIGH	30.6	3.5	0.0	**109.9**			
2463.0000	76.1	A	V	2.0	0	Y	HIGH	30.6	3.5	0.0	**110.2**			

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

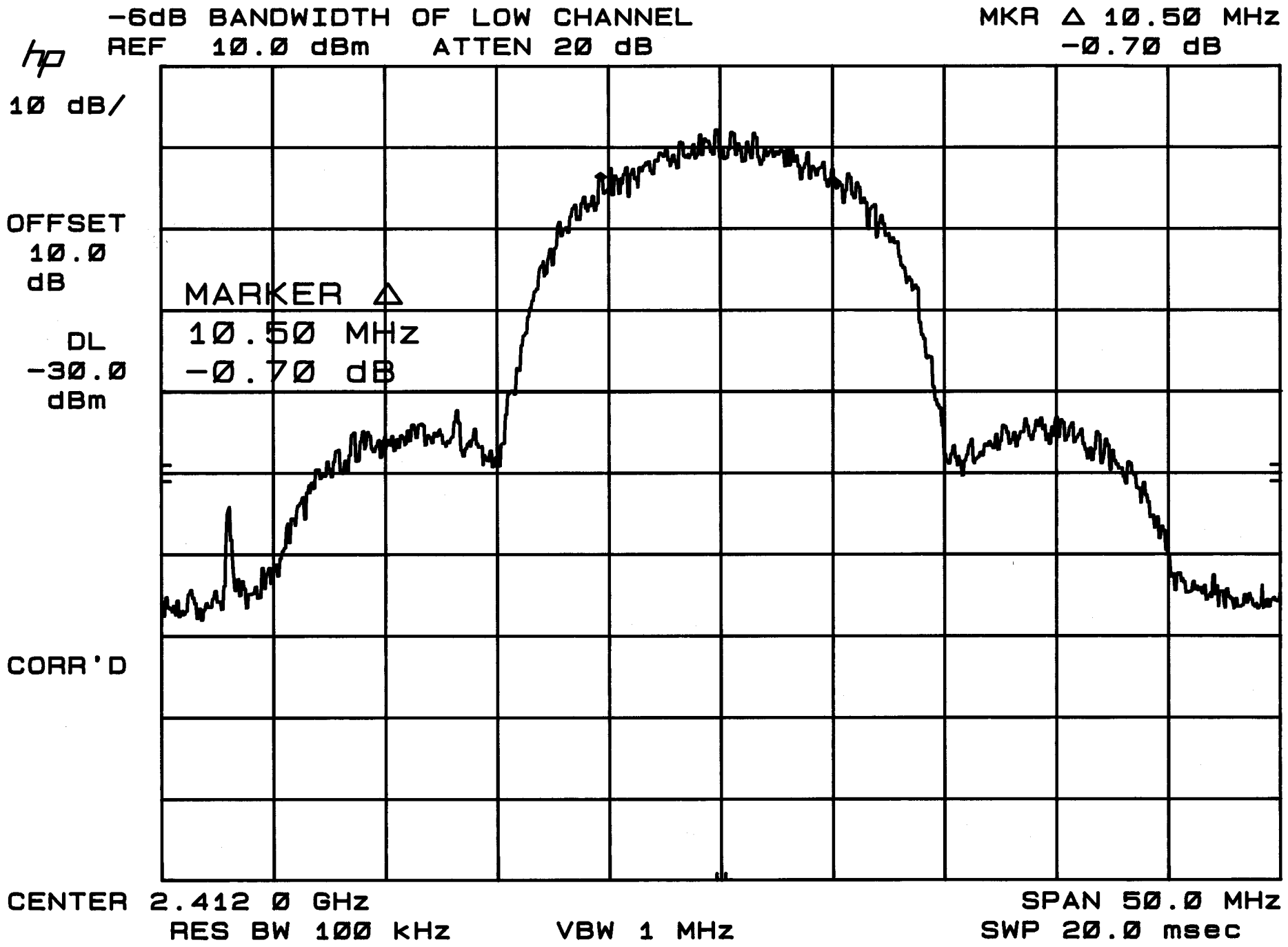
COMPANY	**NET NEAR U**	**DATE**	**8/14/01, 9/24/01**
EUT	**WIRELESS ACCESS POINT**	**DUTY CYCLE**	**N/A**
MODEL	**RAP-1**	**PEAK TO AVG**	**N/A**
S/N	**N/A**	**TEST DIST.**	**3 METERS**
TEST ENGINEER	**KYLE FUJIMOTO**	**LAB**	**D**

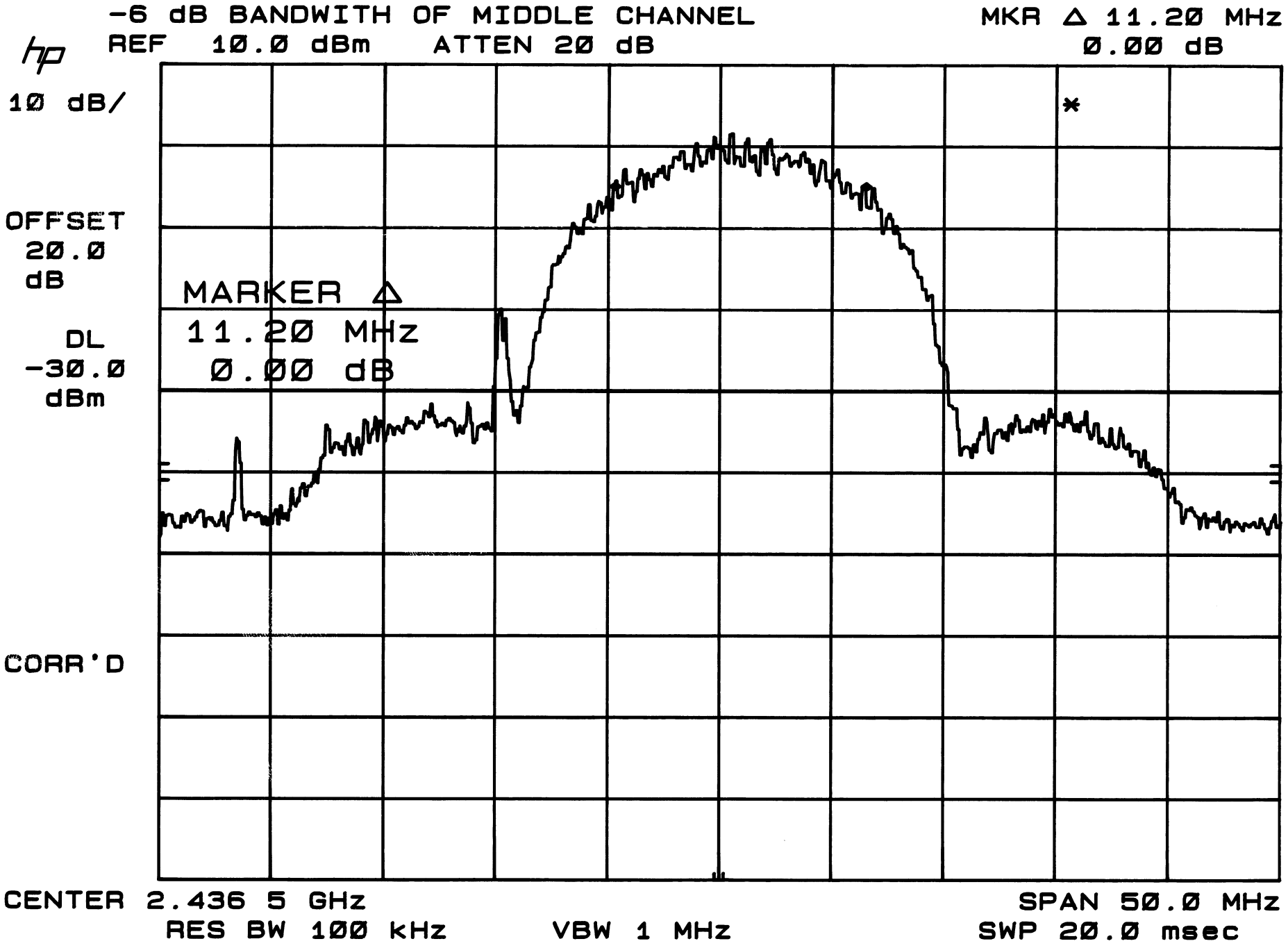
Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
4824.0000	40.9	A	H	1.0	20	X	LOW	34.2	5.4	32.0	**48.6**	**-5.4**	**54.0**	
4824.0000	41.5	A	H	1.0	45	Y	LOW	34.2	5.4	32.0	**49.2**	**-4.8**	**54.0**	
4824.0000	44.0	A	V	1.0	45	X	LOW	34.2	5.4	32.0	**51.7**	**-2.3**	**54.0**	
4824.0000	42.5	A	V	1.5	135	Y	LOW	34.2	5.4	32.0	**50.2**	**-3.8**	**54.0**	
4876.0000	42.5	A	H	1.8	45	X	MID	34.4	5.6	32.1	**50.4**	**-3.6**	**54.0**	
4876.0000	41.3	A	H	1.7	45	Y	MID	34.4	5.6	32.1	**49.2**	**-4.8**	**54.0**	
4876.0000	42.3	A	V	2.0	20	X	MID	34.4	5.6	32.1	**50.2**	**-3.8**	**54.0**	
4876.0000	41.1	A	V	2.5	20	Y	MID	34.4	5.6	32.1	**49.0**	**-5.0**	**54.0**	
4926.0000	42.7	A	H	2.0	45	X	HIGH	34.6	5.7	32.2	**50.7**	**-3.3**	**54.0**	
4926.0000	40.1	A	H	1.0	45	Y	HIGH	34.6	5.7	32.2	**48.1**	**-5.9**	**54.0**	
4926.0000	41.1	A	V	2.0	20	X	HIGH	34.6	5.7	32.2	**49.1**	**-4.9**	**54.0**	
4926.0000	41.7	A	V	2.0	0	Y	HIGH	34.6	5.7	32.2	**49.7**	**-4.3**	**54.0**	

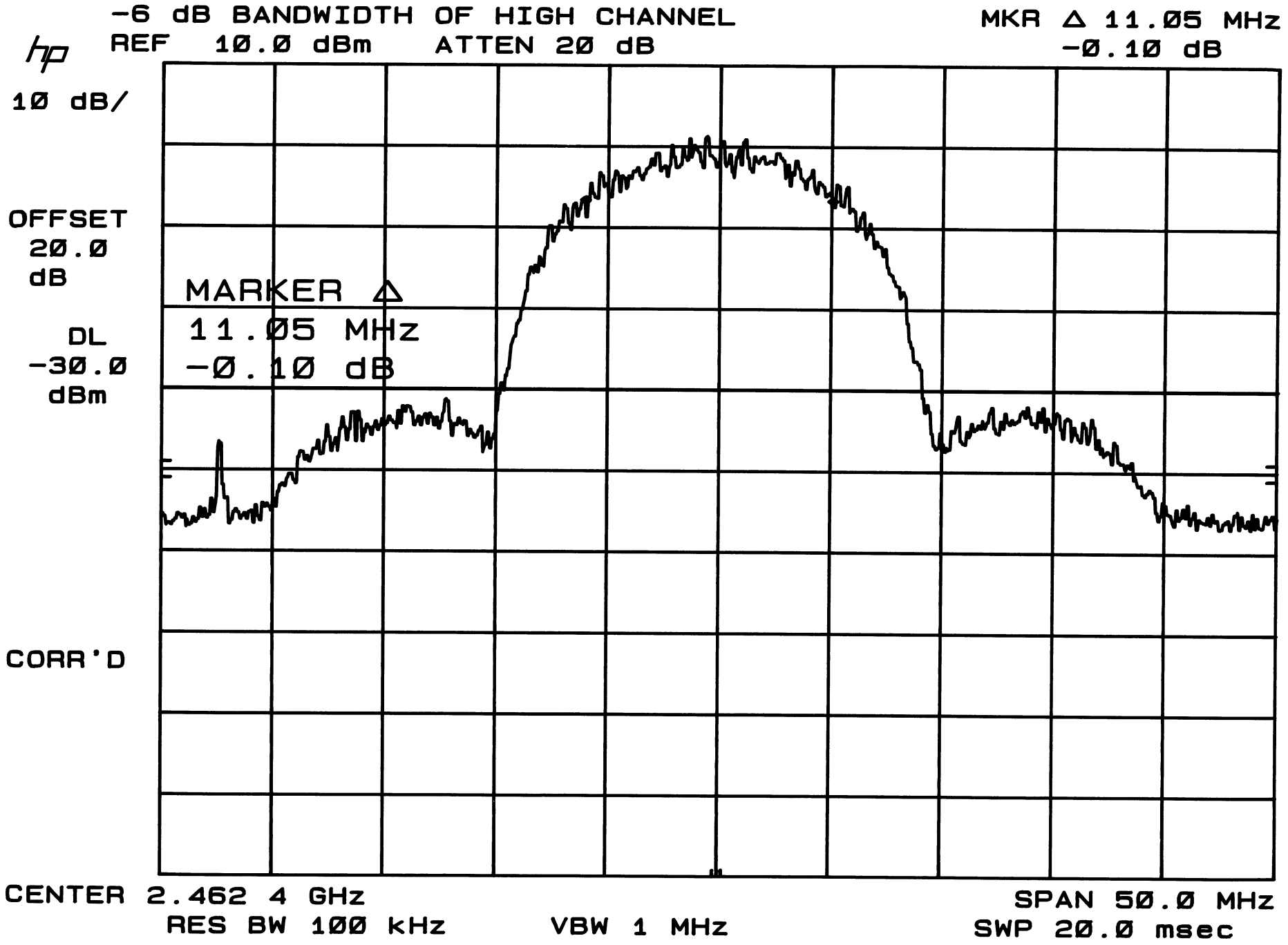
* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

6 dB BANDWIDTH DATA SHEETS


-6dB BANDWIDTH OF LOW CHANNEL
MKR Δ 10.50 MHz
REF 10.0 dBm
ATTEN 20 dB
-0.70 dB
10 dB/
OFFSET
10.0
dB
MARKER Δ
10.50 MHz
-0.70 dB
DL
-30.0
dBm
CORR'D
CENTER 2.412 0 GHz
SPAN 50.0 MHz
RES BW 100 kHz
VBW 1 MHz
SWP 20.0 msec


-6 dB BANDWITH OF MIDDLE CHANNEL
MKR Δ 11.20 MHz
REF 10.0 dBm
ATTEN 20 dB
0.00 dB
10 dB/
OFFSET
20.0
dB
MARKER Δ
11.20 MHz
0.00 dB
DL
-30.0
dBm
CORR'D
CENTER 2.436 5 GHz
SPAN 50.0 MHz
RES BW 100 kHz
VBW 1 MHz
SWP 20.0 msec


-6 dB BANDWIDTH OF HIGH CHANNEL
MKR Δ 11.05 MHz
REF 10.0 dBm
ATTEN 20 dB
-0.10 dB
10 dB/
OFFSET
20.0
dB
MARKER Δ
11.05 MHz
-0.10 dB
DL
-30.0
dBm
CORR'D
CENTER 2.462 4 GHz
SPAN 50.0 MHz
RES BW 100 kHz
VBW 1 MHz
SWP 20.0 msec

PEAK OUTPUT POWER DATA SHEET

PEAK OUTPUT POWER

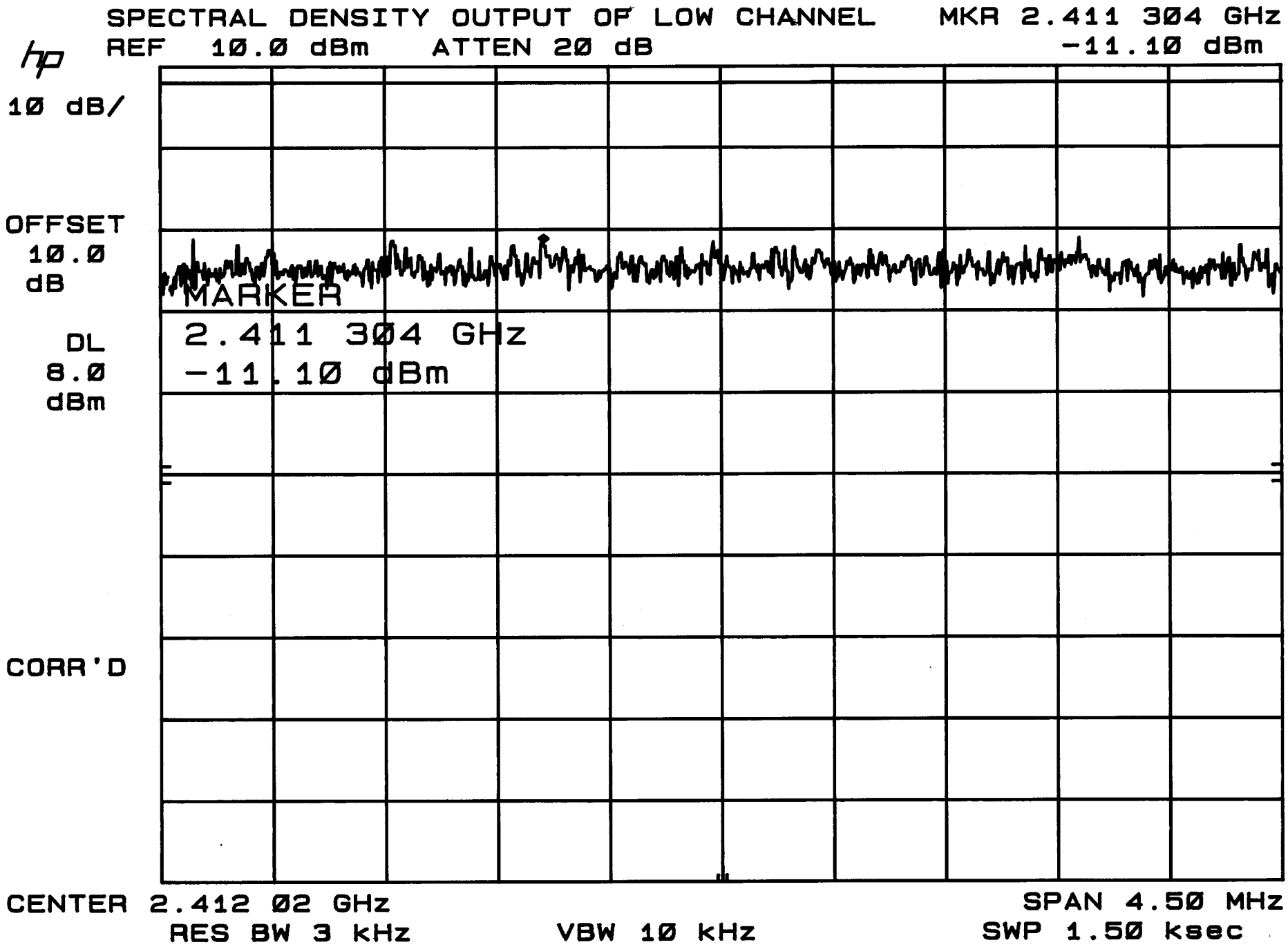
NetNearU CORPORATION

WIRELESS ACCESS POINT

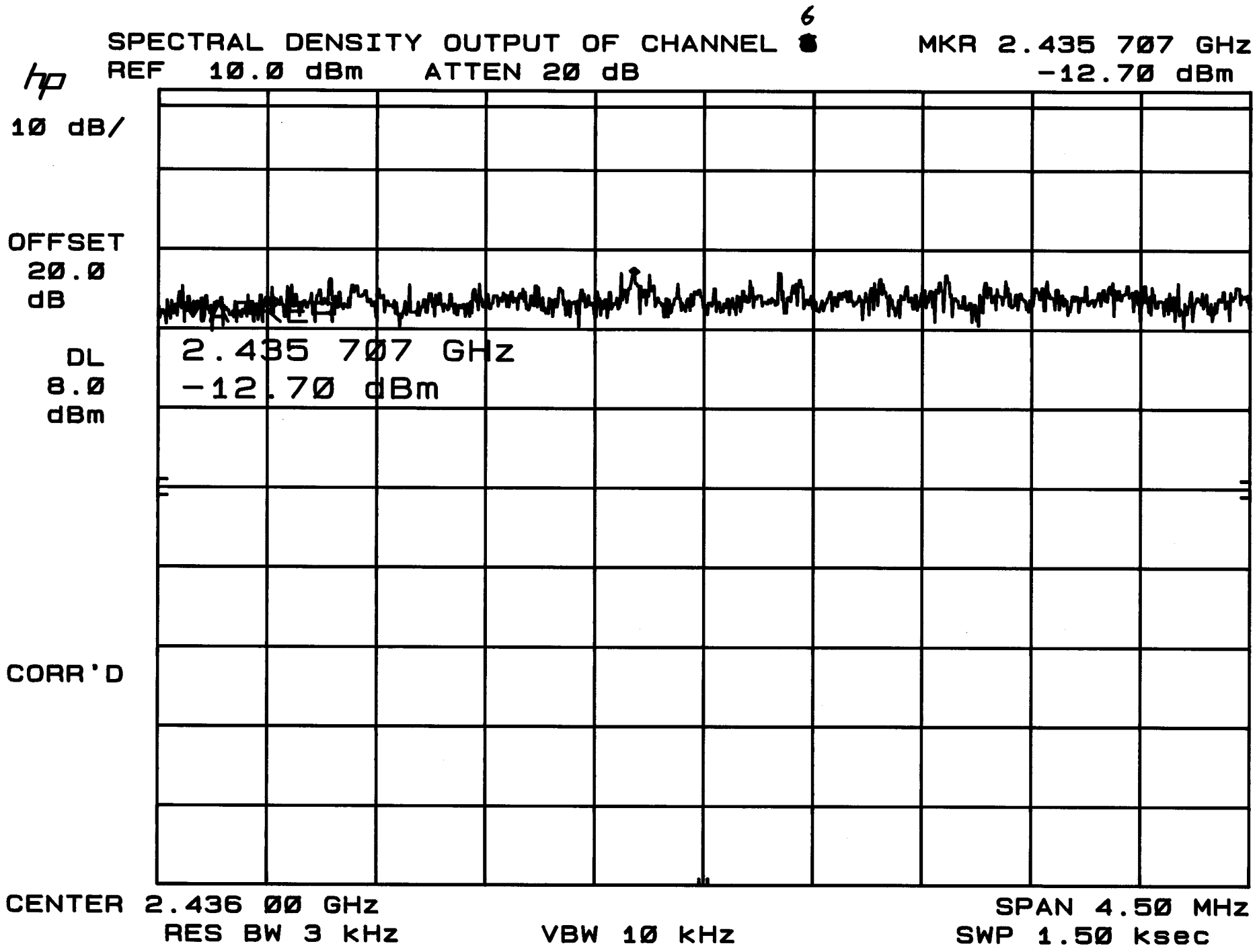
MODEL: RAP-1

CHANNEL	PEAK POWER OUTPUT (dBm)
1	12.12
5	12.14
10	12.20

SPECTRAL DENSITY OUTPUT DATA SHEETS

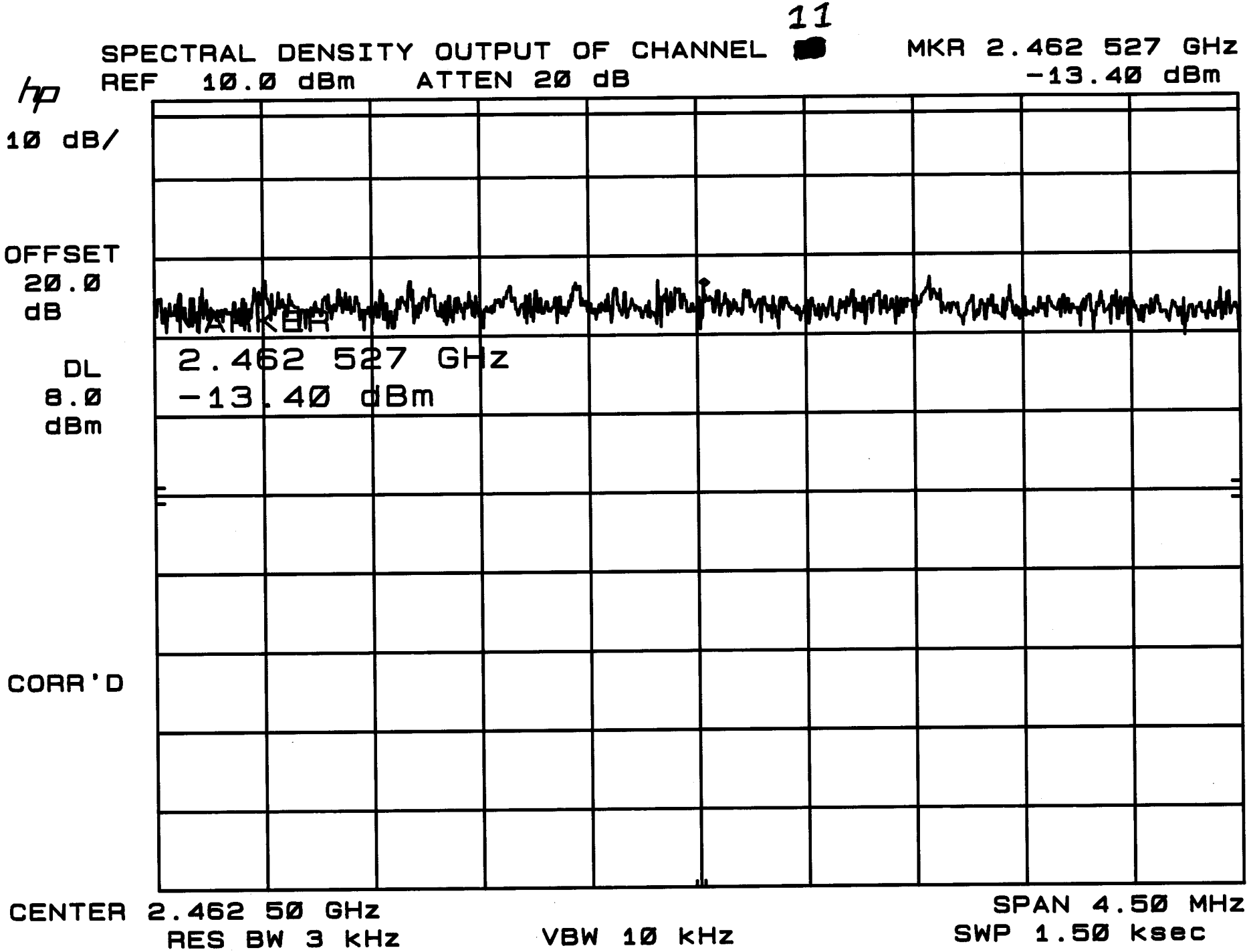

SPECTRAL DENSITY OUTPUT OF LOW CHANNEL
MKR 2.411 304 GHz
REF 10.0 dBm
ATTEN 20 dB
-11.10 dBm
10 dB/
OFFSET
10.0
dB
MARKER
2.411 304 GHz
DL
8.0
dBm
-11.10 dBm
CORR'D
CENTER 2.412 02 GHz
SPAN 4.50 MHz
RES BW 3 kHz
VBW 10 kHz
SWP 1.50 ksec

6

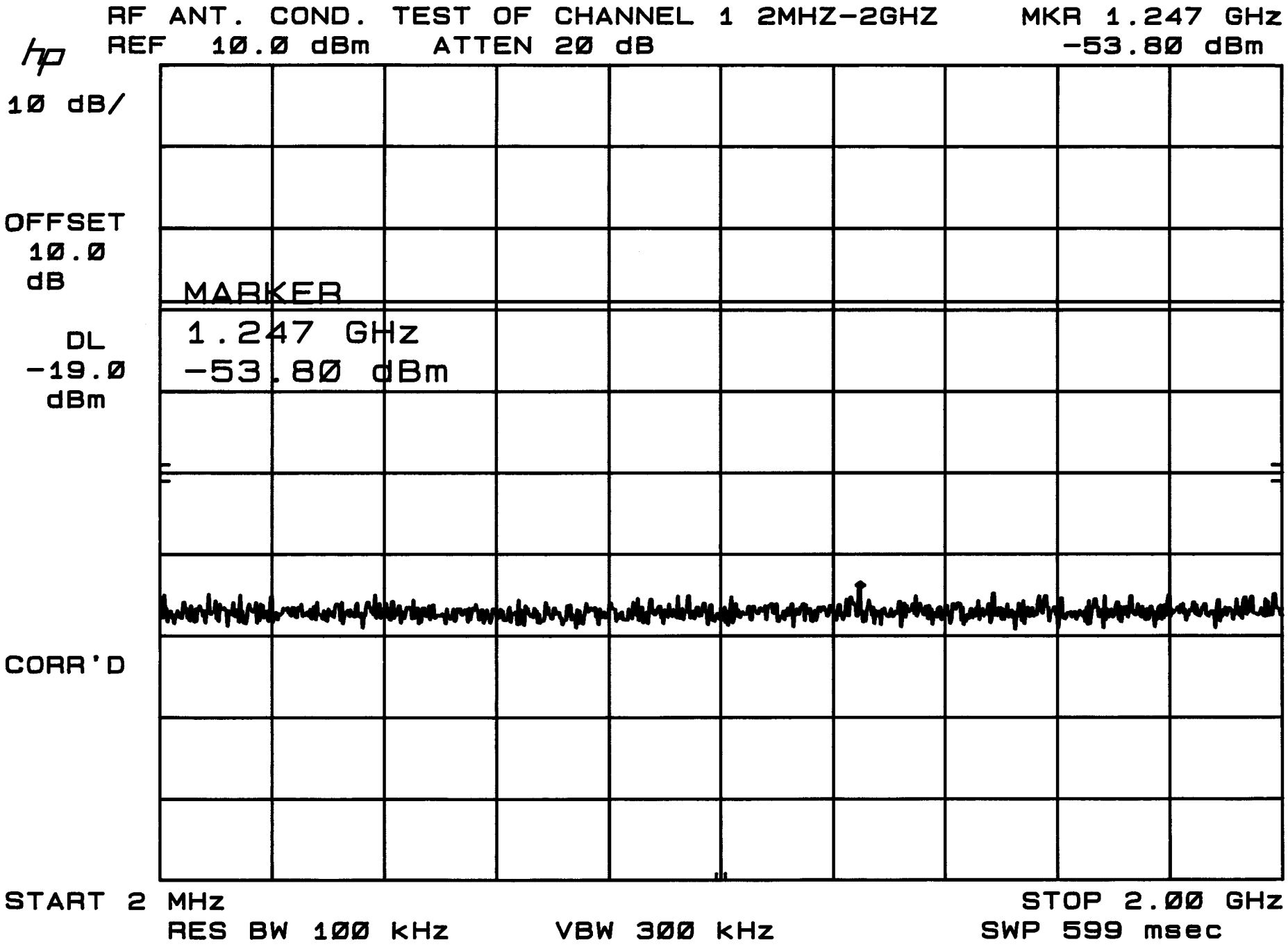

SPECTRAL DENSITY OUTPUT OF CHANNEL
MKR 2.435 707 GHz
REF 10.0 dBm
ATTEN 20 dB
-12.70 dBm
10 dB/
OFFSET
20.0
dB
MARKER
2.435 707 GHz
DL
8.0
dBm
-12.70 dBm
CORR'D
CENTER 2.436 00 GHz
SPAN 4.50 MHz
RES BW 3 kHz
VBW 10 kHz
SWP 1.50 ksec

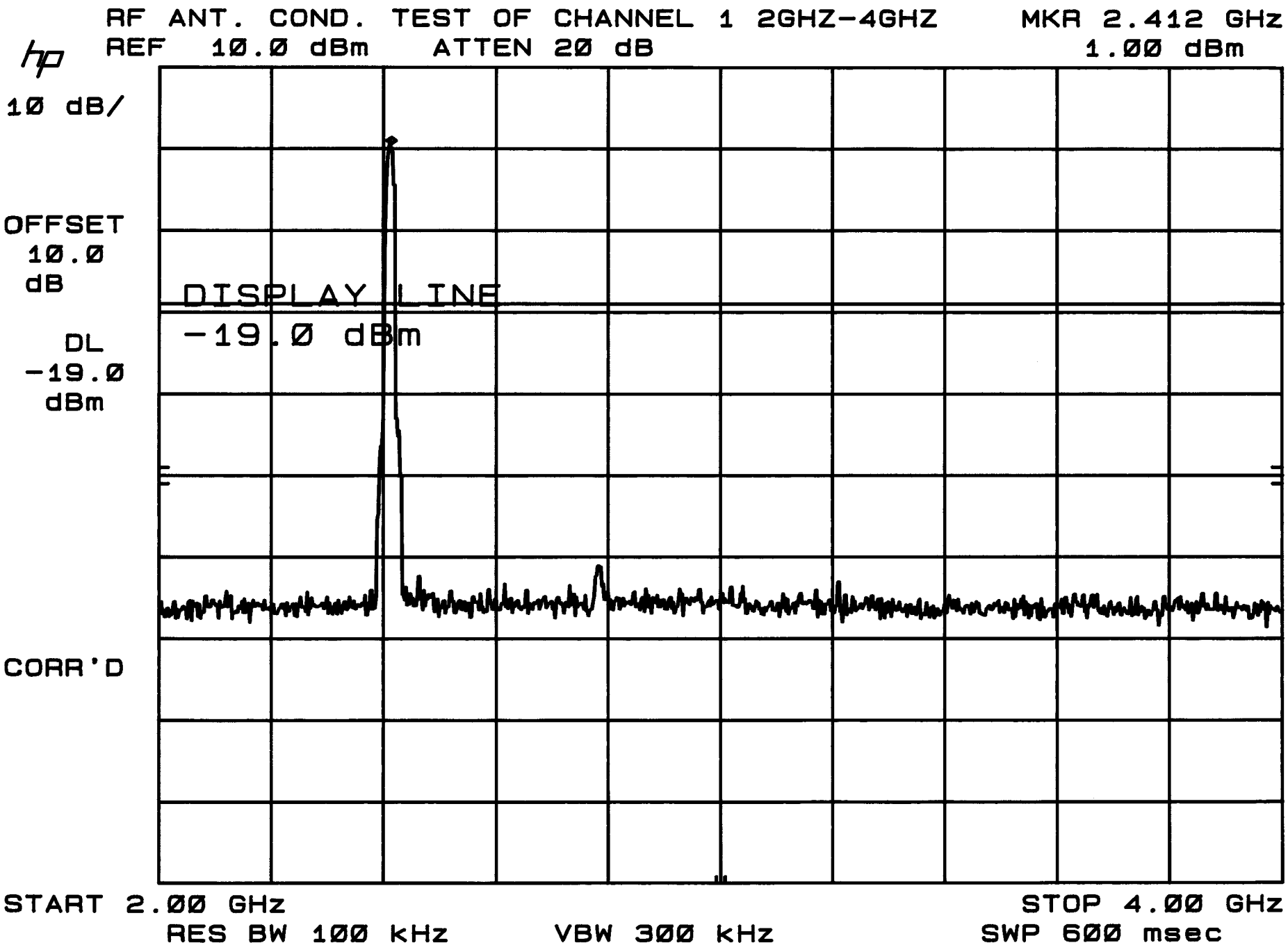
11

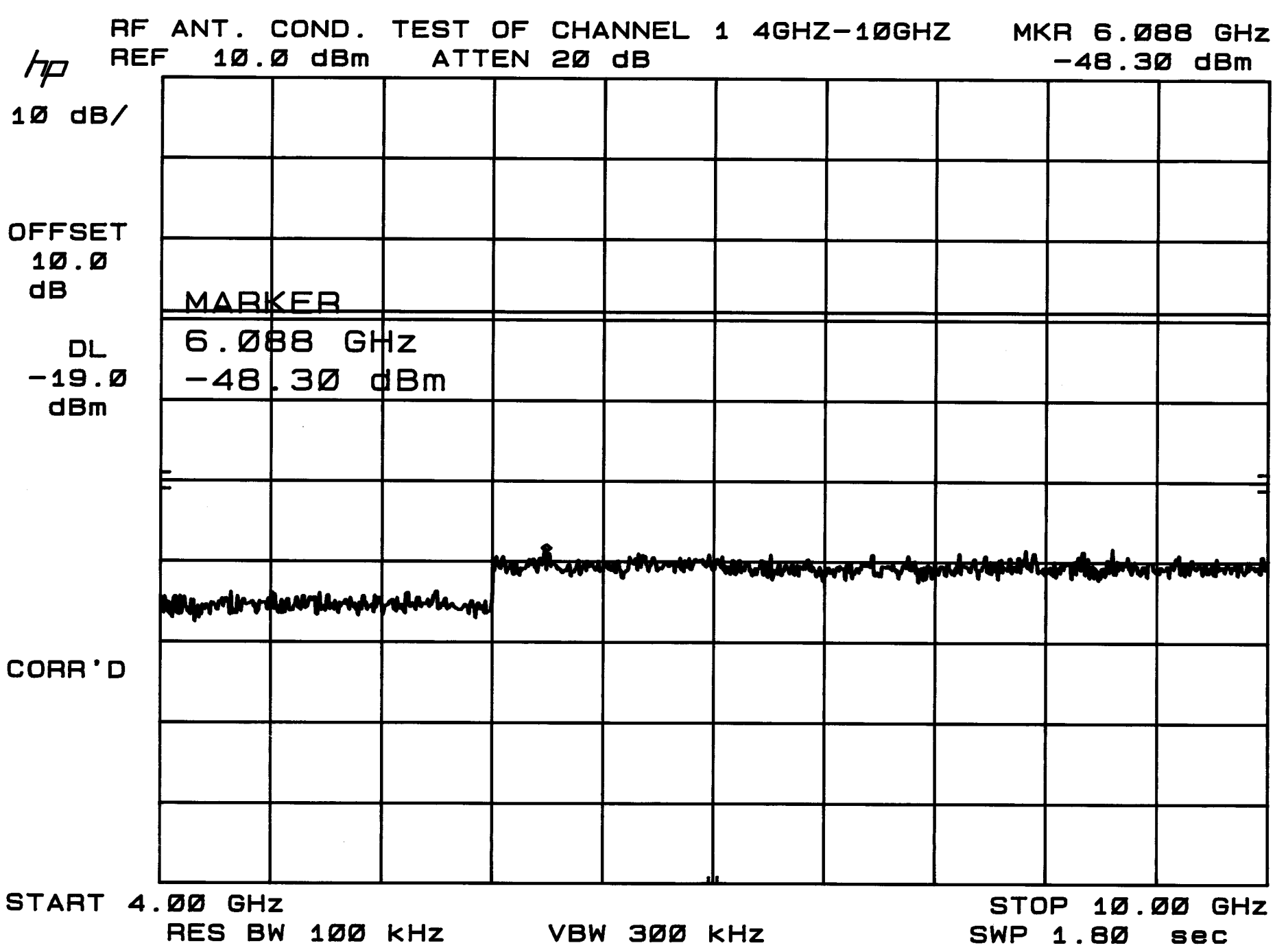
SPECTRAL DENSITY OUTPUT OF CHANNEL [redacted]

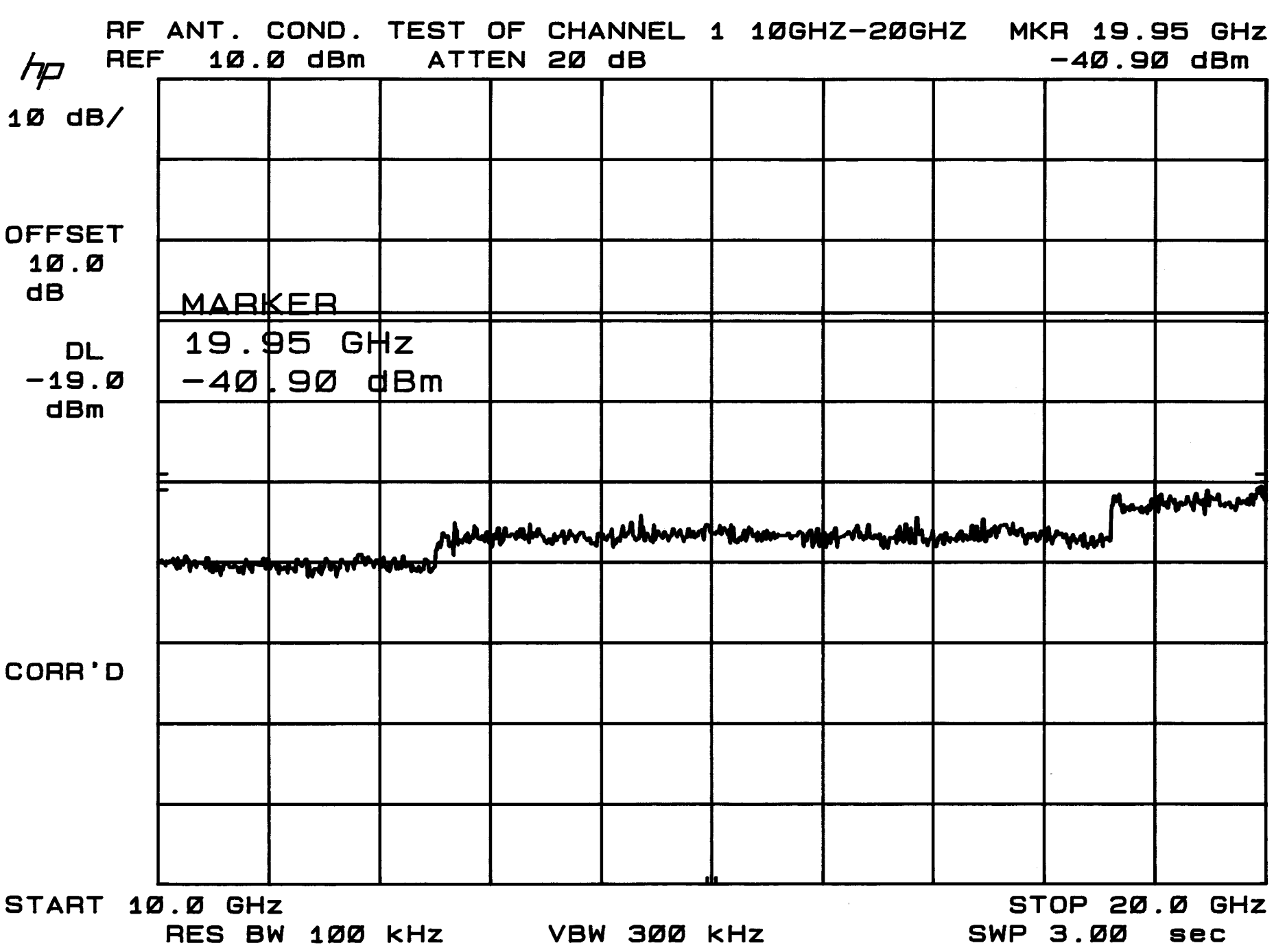


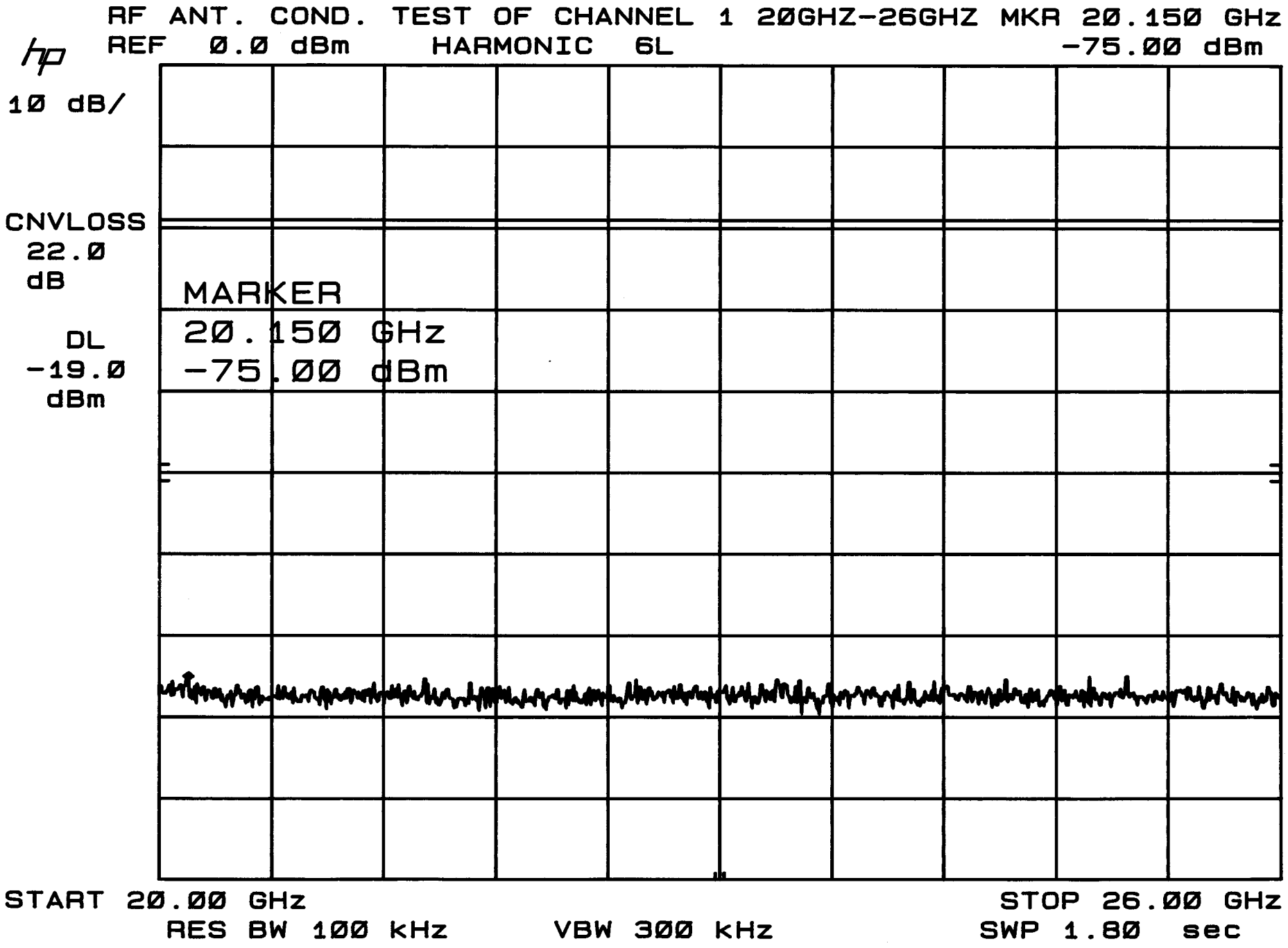
RF ANTENNA CONDUCTED DATA SHEETS

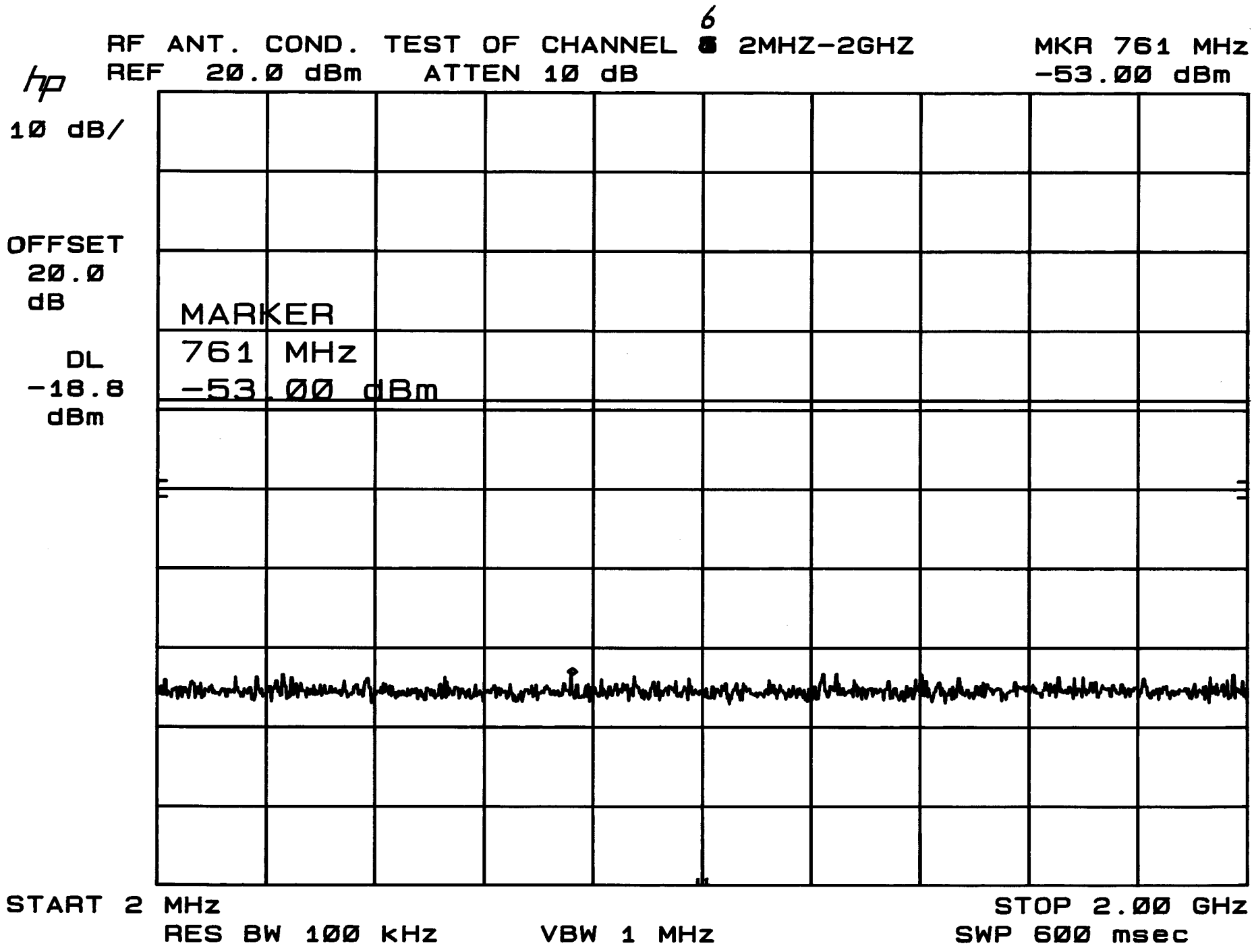

RF ANT. COND. TEST OF CHANNEL 1 2MHZ-2GHZ
MKR 1.247 GHz
REF 10.0 dBm
ATTEN 20 dB
-53.80 dBm
10 dB/
OFFSET
10.0
dB
MARKER
1.247 GHz
-53.80 dBm
DL
-19.0
dBm
CORR'D
START 2 MHz
STOP 2.00 GHz
RES BW 100 kHz
VBW 300 kHz
SWP 599 msec

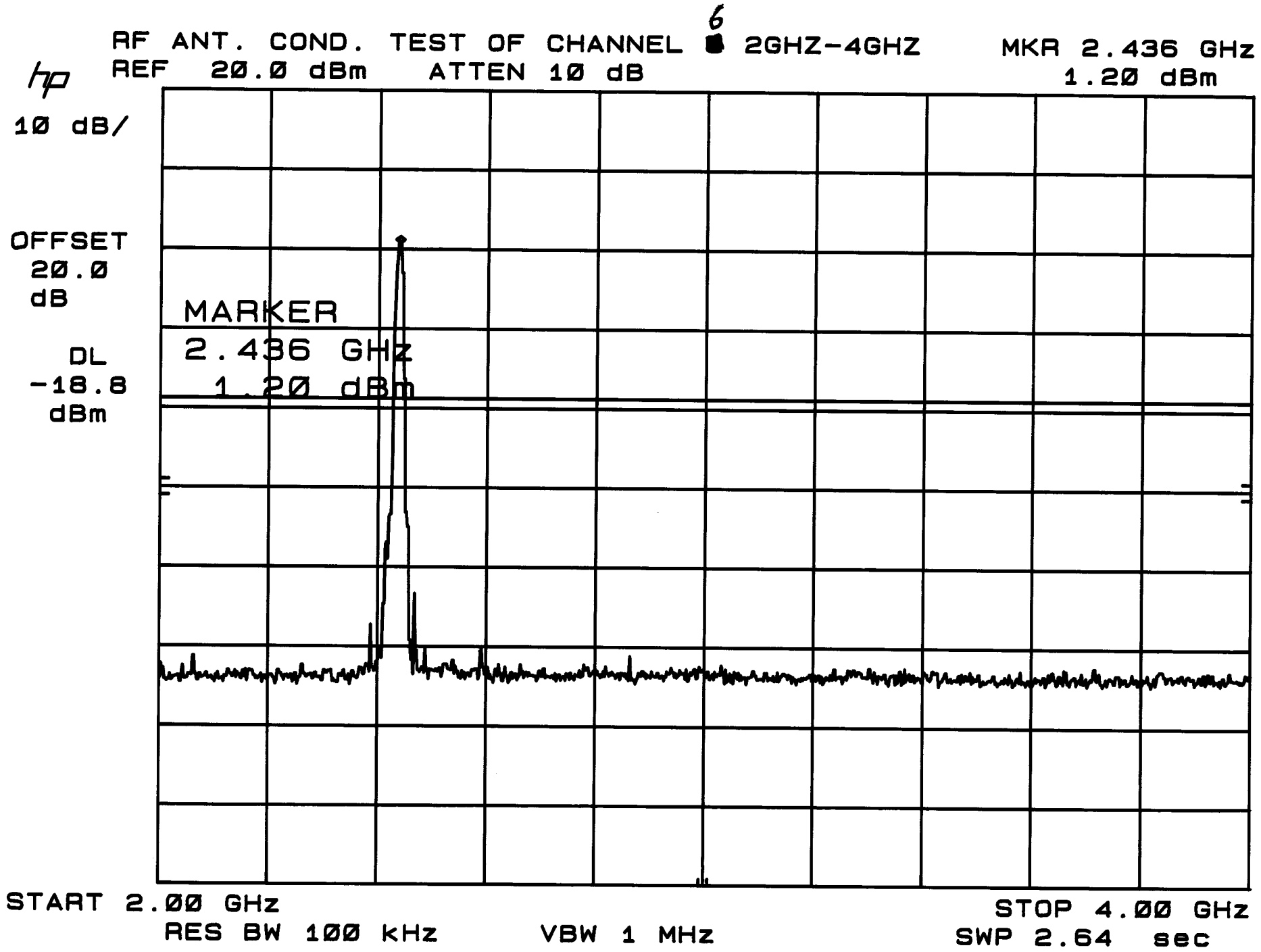

RF ANT. COND. TEST OF CHANNEL 1 2GHZ-4GHZ
MKR 2.412 GHz
REF 10.0 dBm
ATTEN 20 dB
1.00 dBm
10 dB/
OFFSET
10.0
dB
DISPLAY LINE
-19.0 dBm
DL
-19.0
dBm
CORR'D
START 2.00 GHz
STOP 4.00 GHz
RES BW 100 kHz
VBW 300 kHz
SWP 600 msec

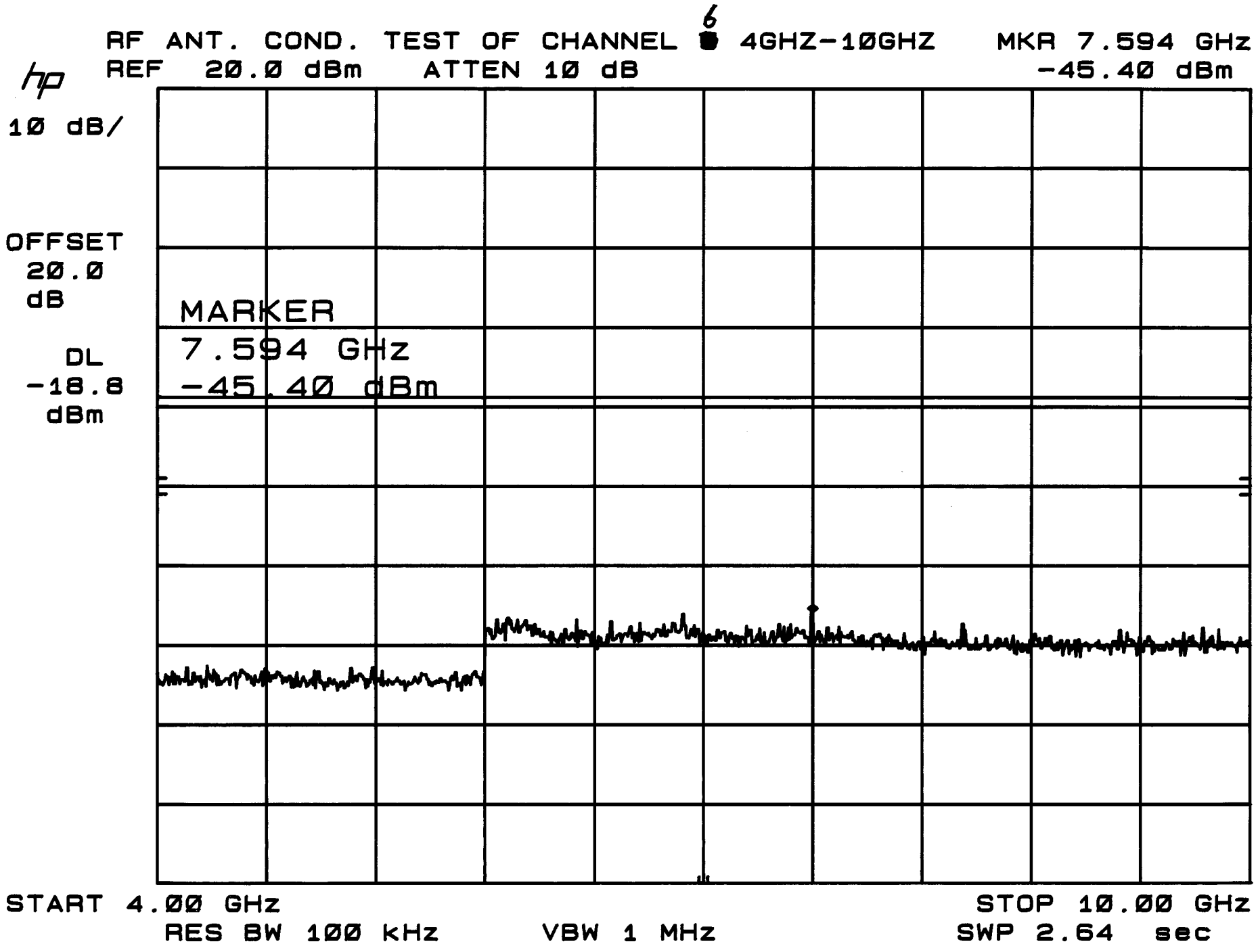

RF ANT. COND. TEST OF CHANNEL 1 4GHZ-10GHZ
MKR 6.088 GHz
REF 10.0 dBm
ATTEN 20 dB
-48.30 dBm
10 dB/
OFFSET
10.0
dB
MARKER
6.088 GHz
-48.30 dBm
DL
-19.0
dBm
CORR'D
START 4.00 GHz
STOP 10.00 GHz
RES BW 100 kHz
VBW 300 kHz
SWP 1.80 sec

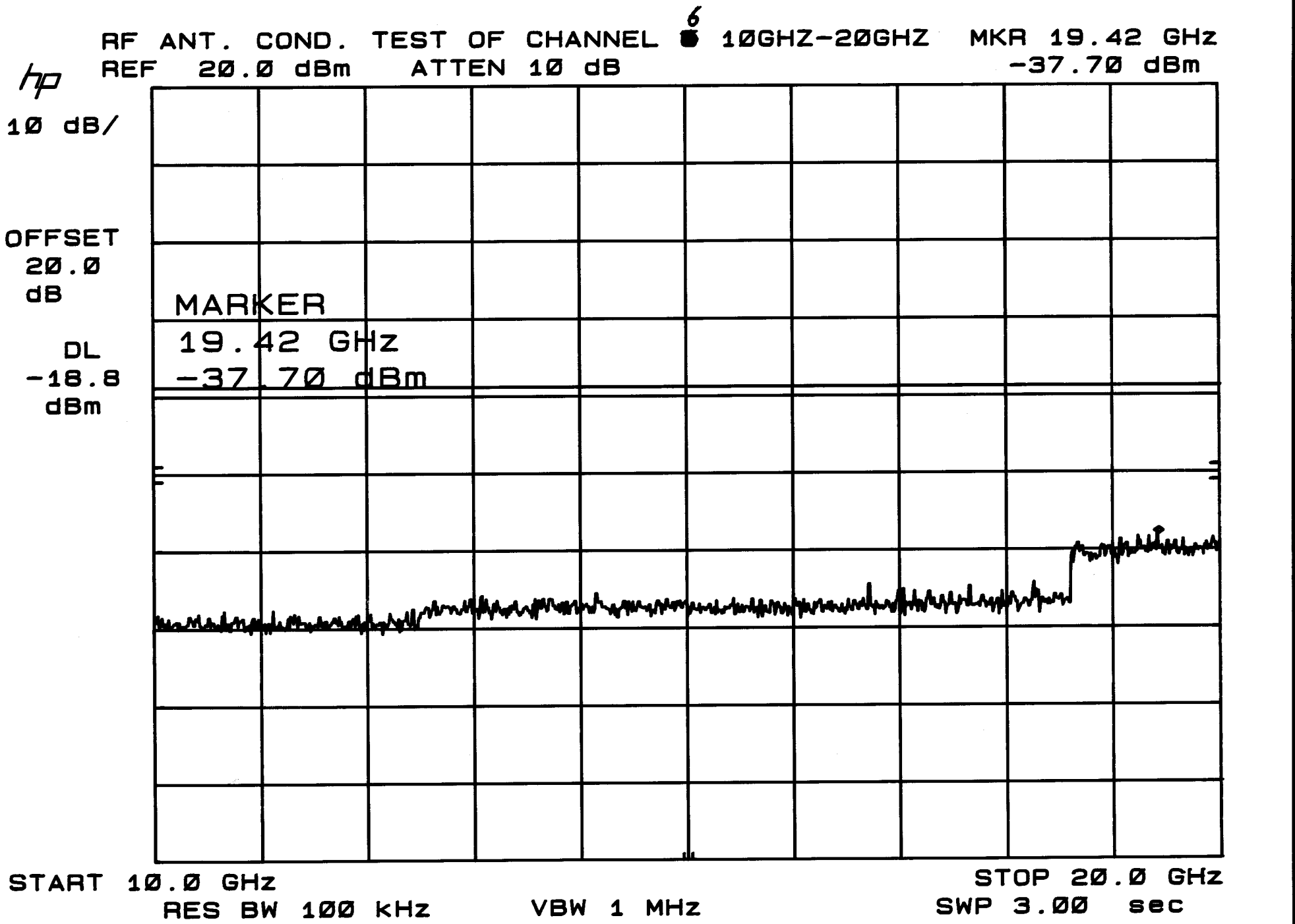

RF ANT. COND. TEST OF CHANNEL 1 10GHZ-20GHZ
MKR 19.95 GHz
REF 10.0 dBm
ATTEN 20 dB
-40.90 dBm
10 dB/
OFFSET
10.0
dB
MARKER
19.95 GHz
-40.90 dBm
DL
-19.0
dBm
CORR'D
START 10.0 GHz
STOP 20.0 GHz
RES BW 100 kHz
VBW 300 kHz
SWP 3.00 sec

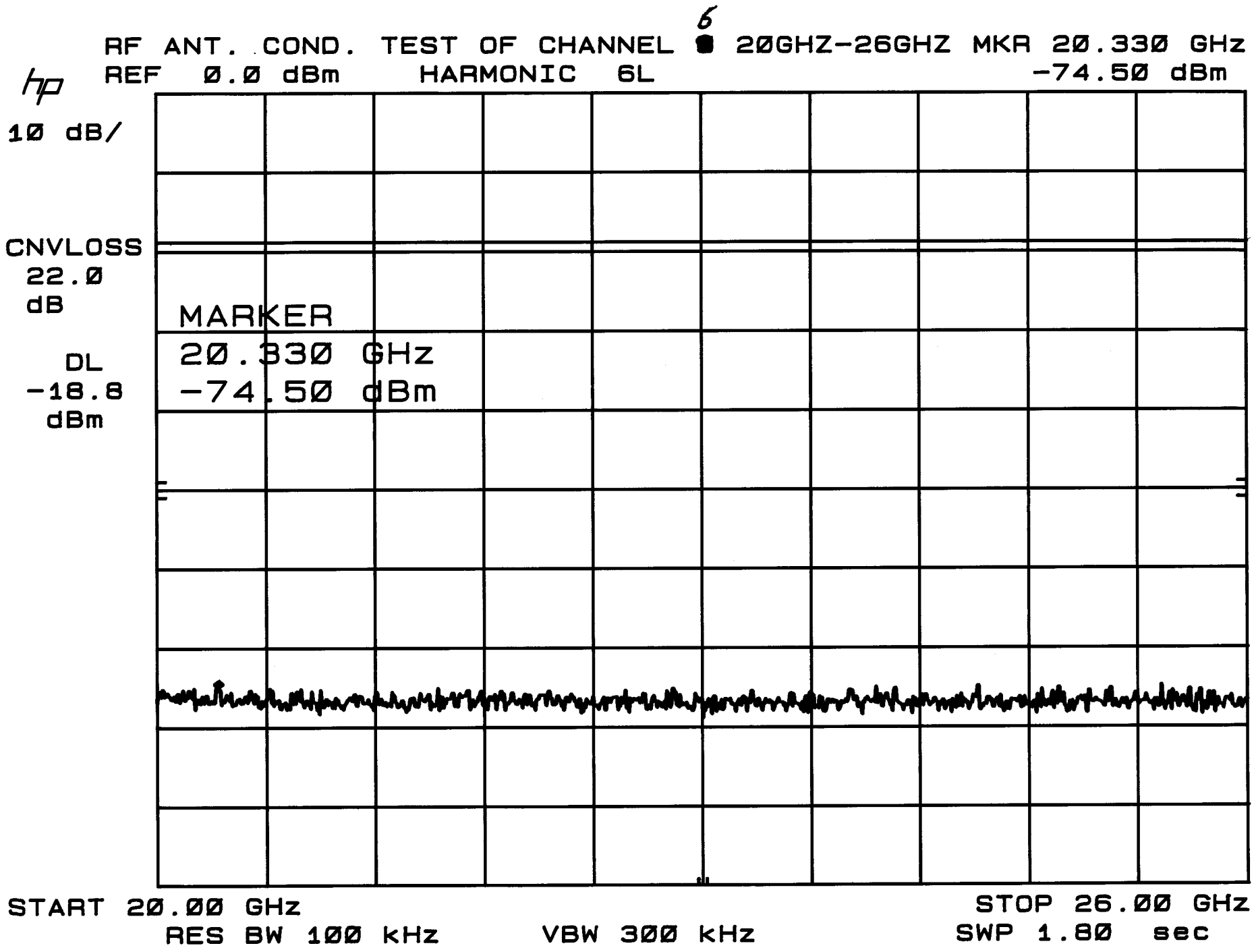

RF ANT. COND. TEST OF CHANNEL 1 20GHZ-26GHZ MKR 20.150 GHz
REF 0.0 dBm HARMONIC 6L -75.00 dBm
10 dB/
CNVLOSS
22.0
dB
DL
-19.0
dBm
MARKER
20.150 GHz
-75.00 dBm
START 20.00 GHz
STOP 26.00 GHz
RES BW 100 kHz
VBW 300 kHz
SWP 1.80 sec


RF ANT. COND. TEST OF CHANNEL 6 2MHZ-2GHZ
REF 20.0 dBm ATTEN 10 dB
MKR 761 MHz
-53.00 dBm
10 dB/
OFFSET
20.0
dB
DL
-18.8
dBm
MARKER
761 MHz
-53.00 dBm
START 2 MHz
STOP 2.00 GHz
RES BW 100 kHz
VBW 1 MHz
SWP 600 msec

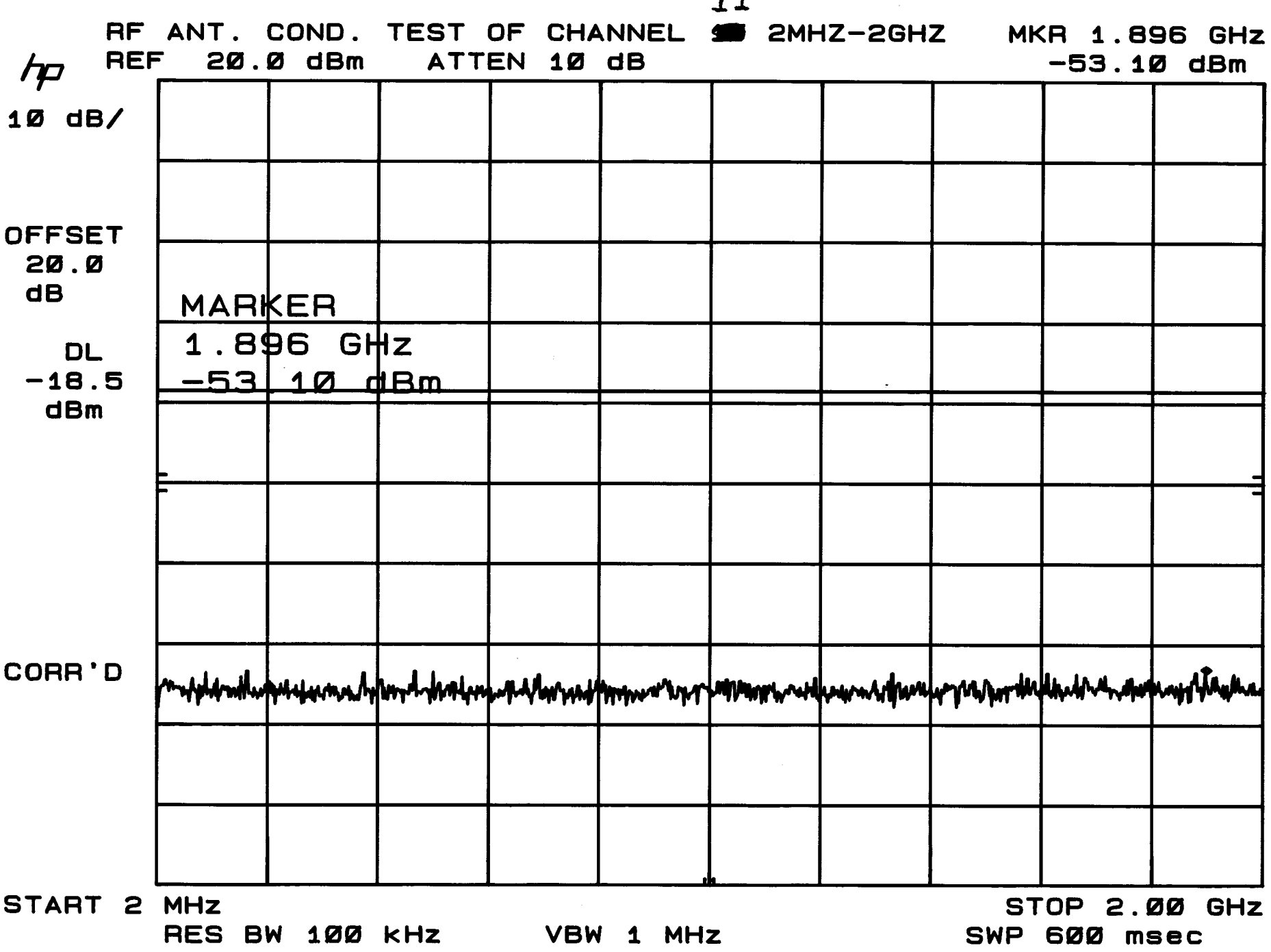

RF ANT. COND. TEST OF CHANNEL 6 2GHZ-4GHZ
MKR 2.436 GHz
REF 20.0 dBm
ATTEN 10 dB
1.20 dBm
10 dB/
OFFSET
20.0
dB
DL
-18.8
dBm
MARKER
2.436 GHz
1.20 dBm
START 2.00 GHz
STOP 4.00 GHz
RES BW 100 kHz
VBW 1 MHz
SWP 2.64 sec

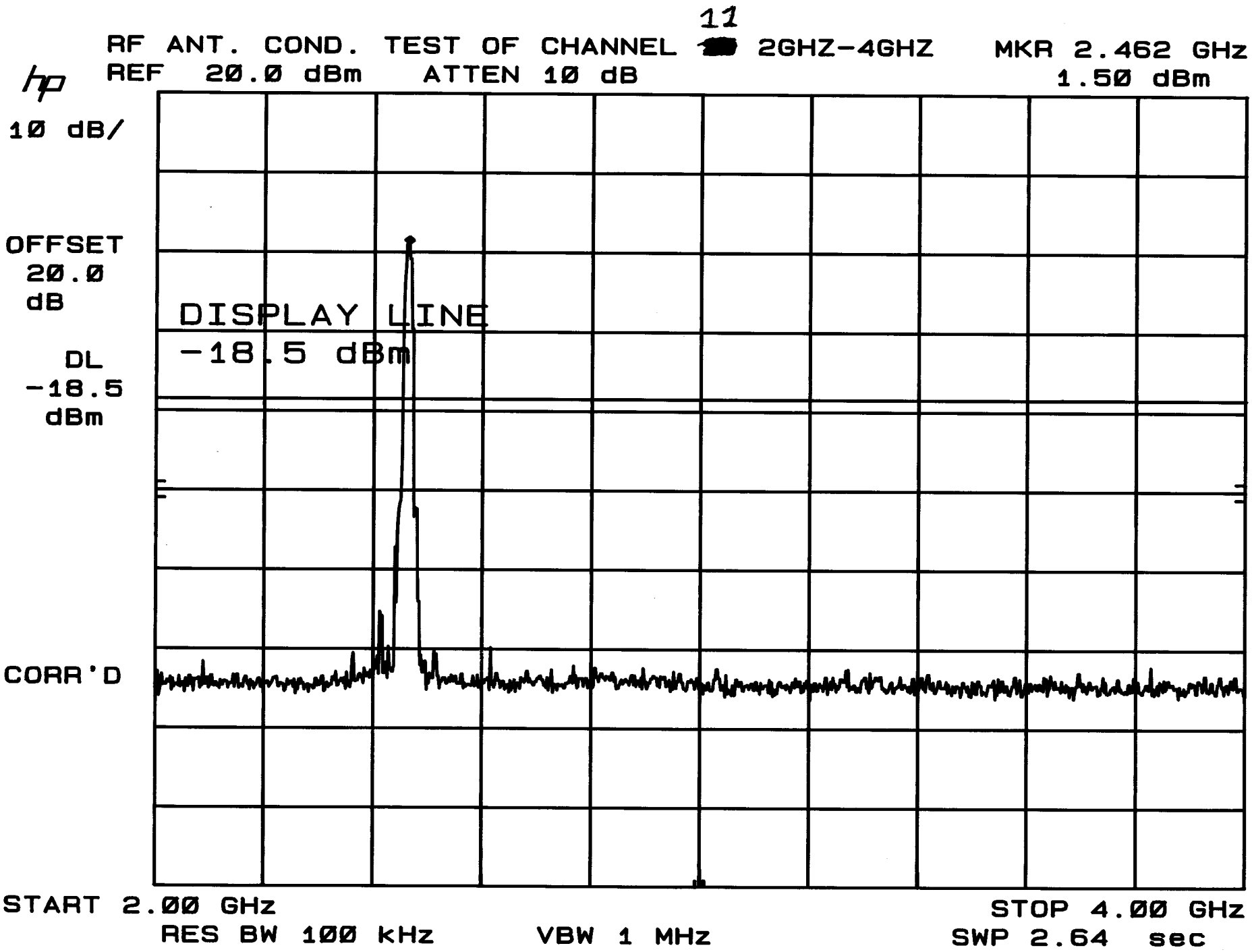

RF ANT. COND. TEST OF CHANNEL 6 4GHZ-10GHZ
MKR 7.594 GHz
REF 20.0 dBm
ATTEN 10 dB
-45.40 dBm
10 dB/
OFFSET
20.0
dB
MARKER
7.594 GHz
-45.40 dBm
DL
-18.8
dBm
START 4.00 GHz
STOP 10.00 GHz
RES BW 100 kHz
VBW 1 MHz
SWP 2.64 sec

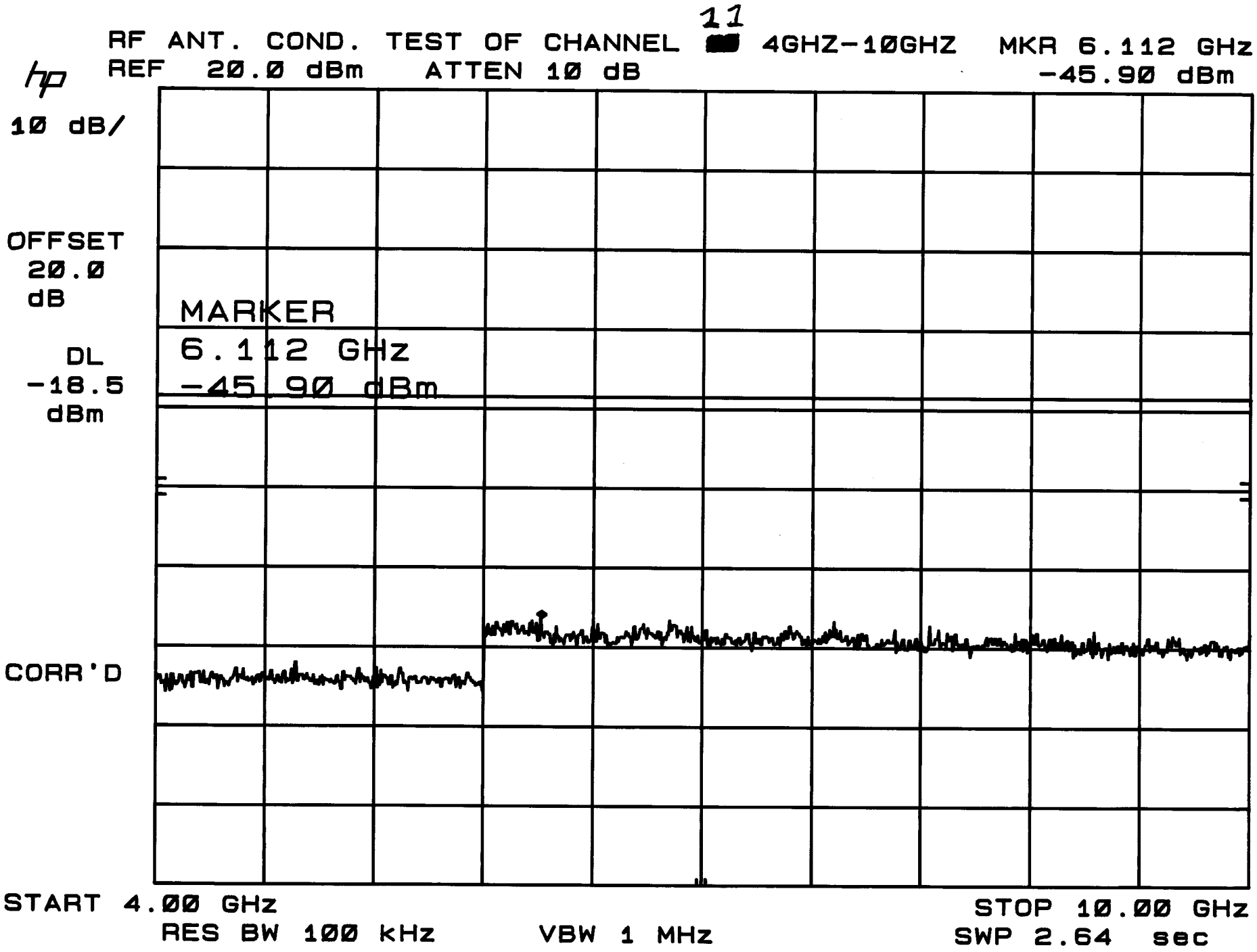

RF ANT. COND. TEST OF CHANNEL 6 10GHZ-20GHZ
MKR 19.42 GHz
REF 20.0 dBm
ATTEN 10 dB
-37.70 dBm
10 dB/
OFFSET
20.0
dB
MARKER
19.42 GHz
-37.70 dBm
DL
-18.8
dBm
START 10.0 GHz
STOP 20.0 GHz
RES BW 100 kHz
VBW 1 MHz
SWP 3.00 sec

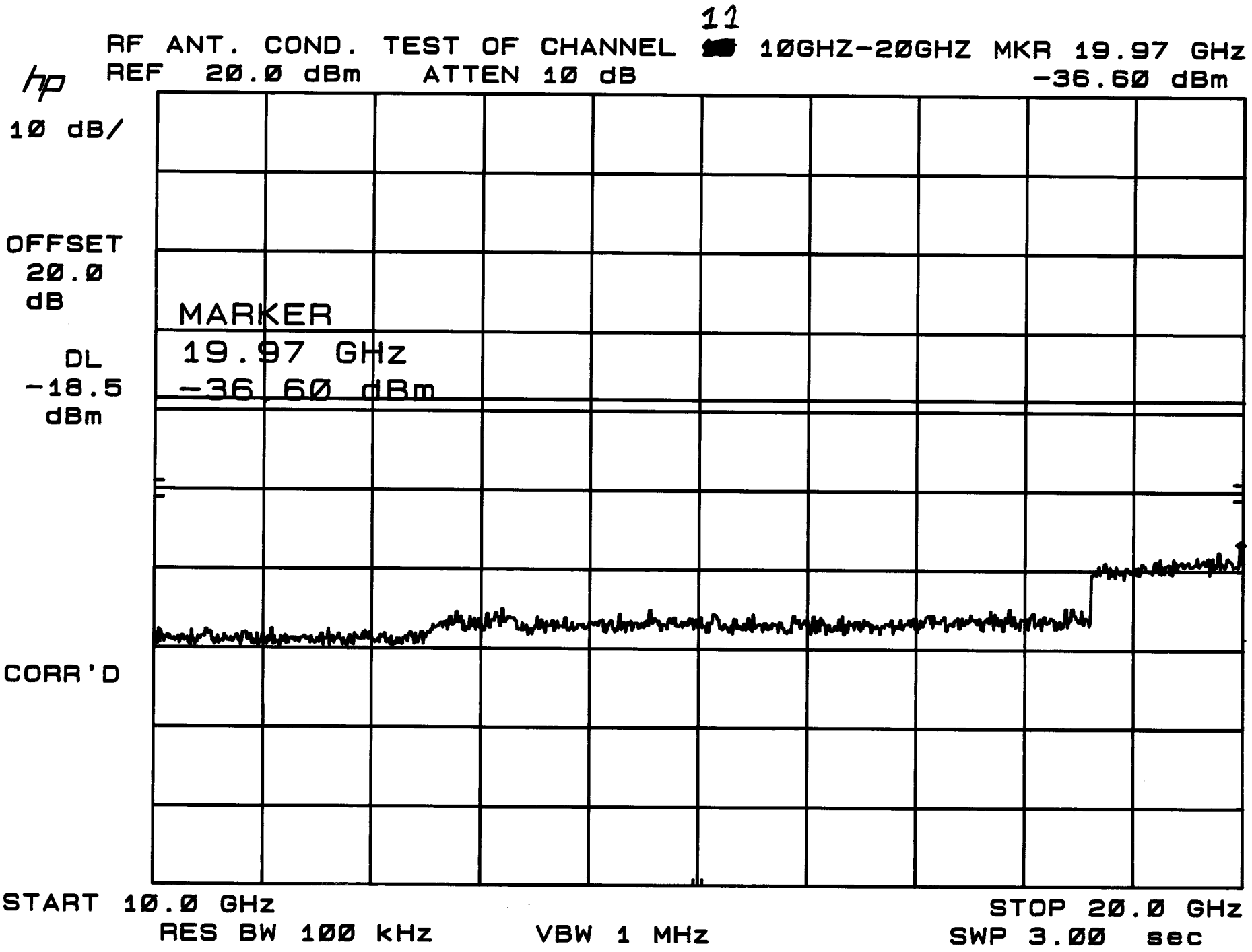

RF ANT. COND. TEST OF CHANNEL 6 20GHZ-26GHZ MKR 20.330 GHz
REF 0.0 dBm HARMONIC 6L -74.50 dBm
10 dB/
CNVLOSS
22.0
dB
DL
-18.8
dBm
MARKER
20.330 GHz
-74.50 dBm
START 20.00 GHz
STOP 26.00 GHz
RES BW 100 kHz
VBW 300 kHz
SWP 1.80 sec

11

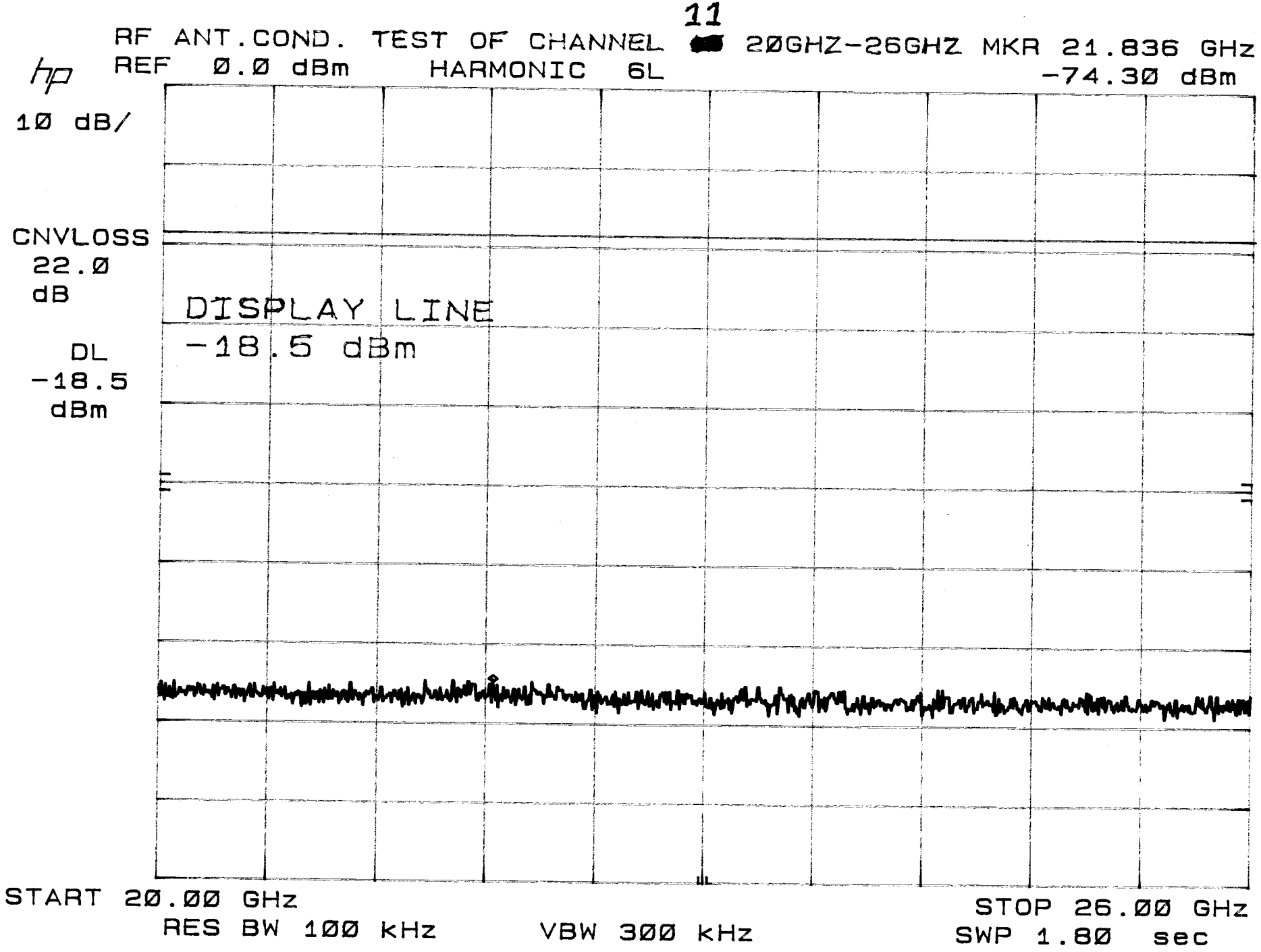

RF ANT. COND. TEST OF CHANNEL [redacted] 2MHZ-2GHZ
MKR 1.896 GHz
REF 20.0 dBm
ATTEN 10 dB
-53.10 dBm
10 dB/
OFFSET
20.0
dB
MARKER
1.896 GHz
-53.10 dBm
DL
-18.5
dBm
CORR'D
START 2 MHz
STOP 2.00 GHz
RES BW 100 kHz
VBW 1 MHz
SWP 600 msec


RF ANT. COND. TEST OF CHANNEL 11 2GHZ-4GHZ
MKR 2.462 GHz
REF 20.0 dBm
ATTEN 10 dB
1.50 dBm
10 dB/
OFFSET
20.0
dB
DISPLAY LINE
-18.5 dBm
DL
-18.5
dBm
CORR'D
START 2.00 GHz
STOP 4.00 GHz
RES BW 100 kHz
VBW 1 MHz
SWP 2.64 sec


RF ANT. COND. TEST OF CHANNEL 11 4GHZ-10GHZ
MKR 6.112 GHz
REF 20.0 dBm
ATTEN 10 dB
-45.90 dBm
10 dB/
OFFSET
20.0
dB
MARKER
6.112 GHz
-45.90 dBm
DL
-18.5
dBm
CORR'D
START 4.00 GHz
STOP 10.00 GHz
RES BW 100 kHz
VBW 1 MHz
SWP 2.64 sec


11
RF ANT. COND. TEST OF CHANNEL [redacted] 10GHZ-20GHZ MKR 19.97 GHz
REF 20.0 dBm ATTEN 10 dB -36.60 dBm
10 dB/
OFFSET
20.0
dB
MARKER
19.97 GHz
-36.60 dBm
DL
-18.5
dBm
CORR'D
START 10.0 GHz
STOP 20.0 GHz
RES BW 100 kHz
VBW 1 MHz
SWP 3.00 sec

11


RF ANT.COND. TEST OF CHANNEL [redacted] 20GHZ-26GHZ MKR 21.836 GHz
REF 0.0 dBm HARMONIC 6L
-74.30 dBm
10 dB/
CNVLOSS
22.0
dB
DISPLAY LINE
-18.5 dBm
DL
-18.5
dBm
START 20.00 GHz
STOP 26.00 GHz
RES BW 100 kHz
VBW 300 kHz
SWP 1.80 sec

RF BAND EDGES DATA SHEETS

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

COMPANY	**NET NEAR U**	**DATE**	**8/14/01**
EUT	**WIRELESS ACCESS POINT**	**DUTY CYCLE**	**N/A**
MODEL	**RAP-1**	**PEAK TO AVG**	**N/A**
S/N	**N/A**	**TEST DIST.**	**3 METERS**
TEST ENGINEER	**BENIGNO CHAVEZ**	**LAB**	**D**

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
2390.0000	40.2	A	V	2.0	90	X	LOW	30.5	3.6	32.0	**42.3**	**-11.7**	**54.0**	**BAND EDGE LOW CH.**
2483.5000	52.9	44.2 A	V	1.0	90	X	HIGH	30.7	3.5	31.9	**46.5**	**-7.5**	**54.0**	**BAND EDGE HIGH CH.**

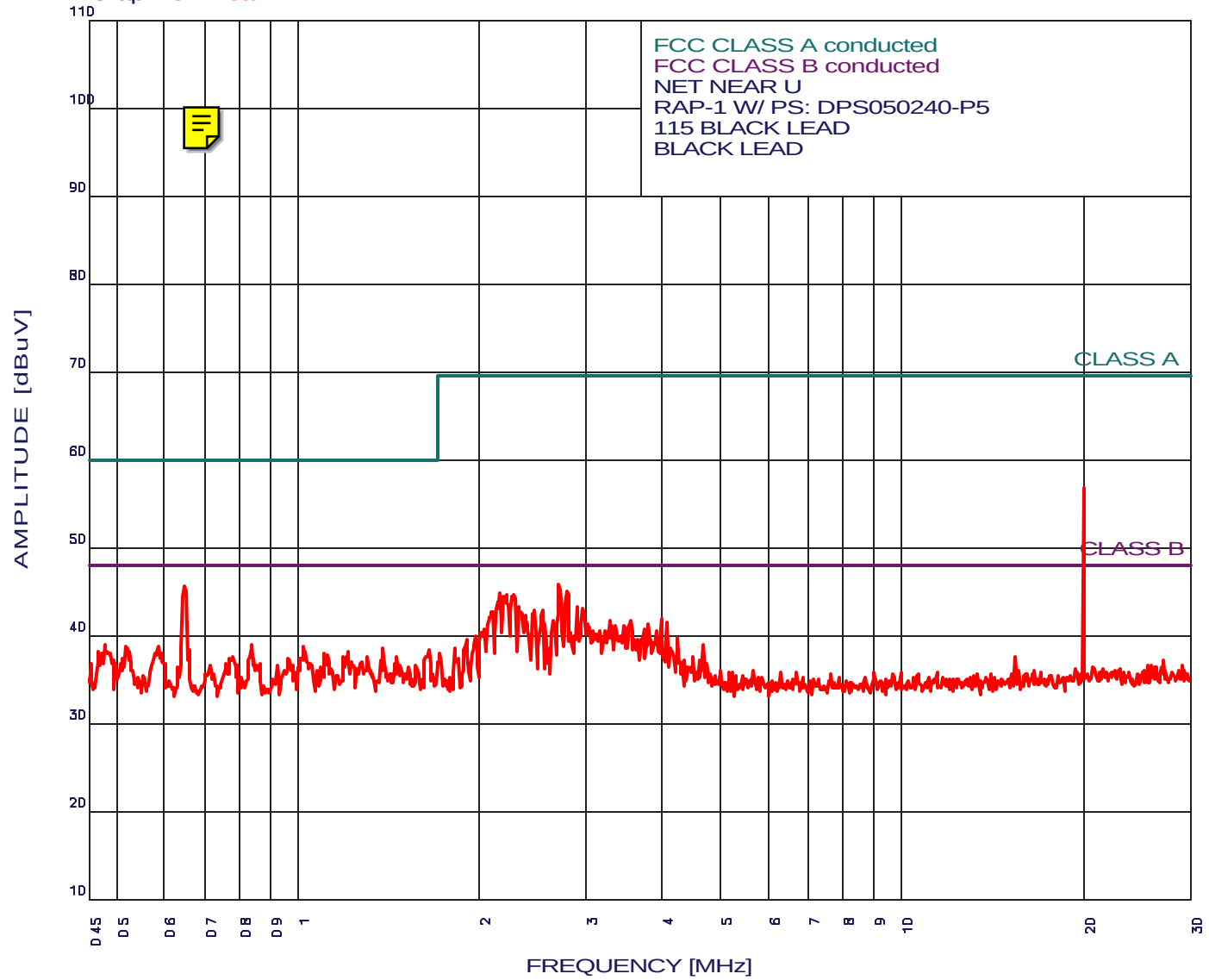
* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

CONDUCTED EMISSIONS
DATA SHEETS FOR THE TRANSMITTER PORTION

EMISSION LEVEL [dBuV] PEAK
Graph for Peak

8/07/2001 18:33:34



COMPATIBLE ELECTRONICS

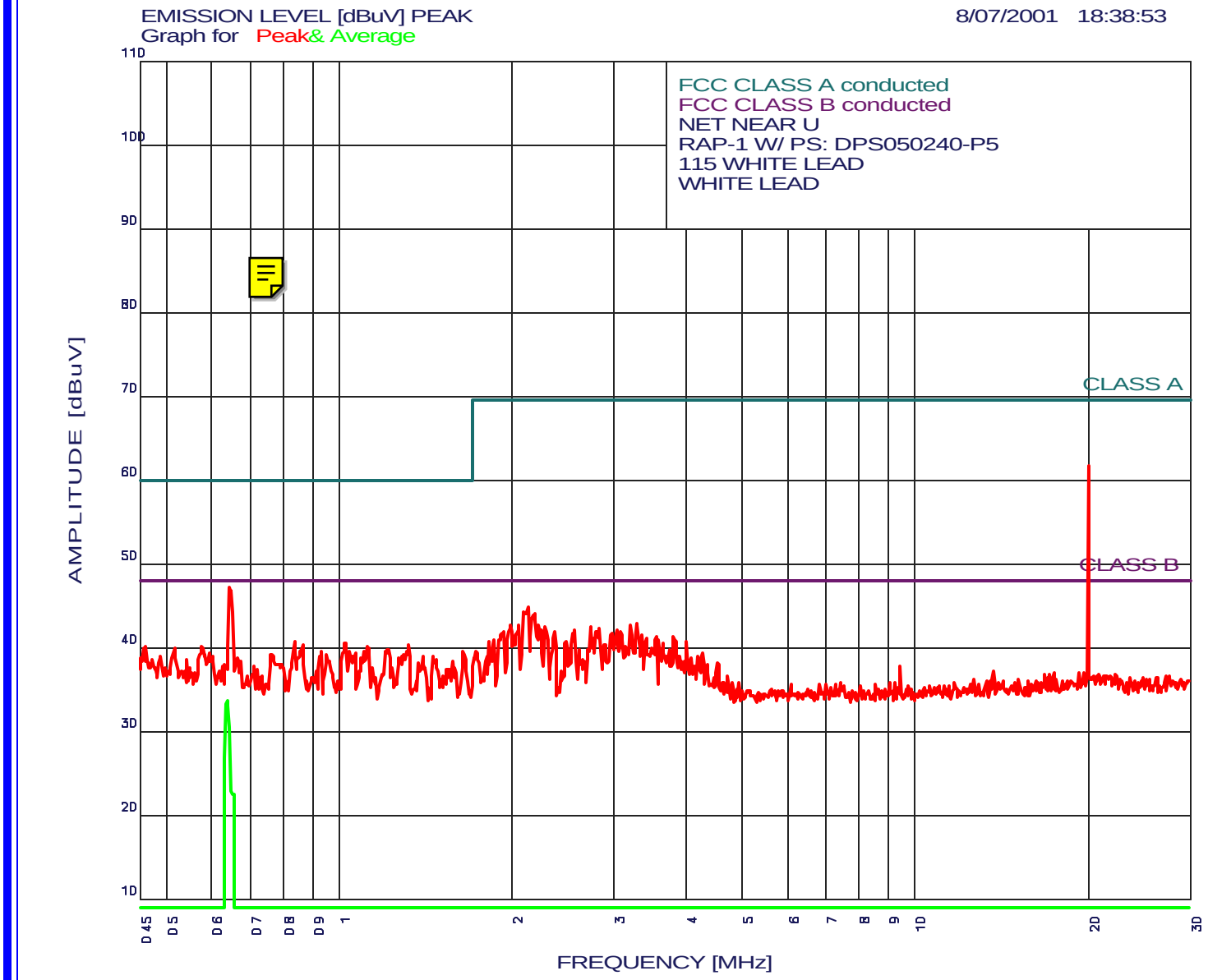
8/07/2001 18:33:34

NET NEAR U
RAP-1
115 BLACK LEAD
FCC B
TEST ENGINEER :_____
BENIGNO CHAVEZ

---

41 highest peaks above -50.00 dB of CLASS B limit line
Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	19.971	56.80	48.00	8.80
2	2.706	45.82	48.00	-2.18
3	0.646	45.59	48.00	-2.41
4	2.787	44.92	48.00	-3.08
5	2.157	44.71	48.00	-3.29
6	2.278	44.51	48.00	-3.49
7	2.211	44.51	48.00	-3.49
8	2.893	43.22	48.00	-4.78
9	2.317	43.21	48.00	-4.79
10	2.956	43.12	48.00	-4.88
11	2.467	42.91	48.00	-5.09
12	2.541	42.82	48.00	-5.18
13	2.103	42.71	48.00	-5.29
14	2.446	42.41	48.00	-5.59
15	2.375	42.21	48.00	-5.79
16	3.996	41.83	48.00	-6.17
17	3.556	41.73	48.00	-6.27
18	2.649	41.72	48.00	-6.28
19	3.283	41.62	48.00	-6.38
20	4.084	41.53	48.00	-6.47
21	3.803	41.33	48.00	-6.67
22	3.018	41.32	48.00	-6.68
23	2.562	41.32	48.00	-6.68
24	3.351	41.13	48.00	-6.87
25	3.310	41.12	48.00	-6.88
26	3.452	41.03	48.00	-6.97
27	3.739	40.63	48.00	-7.37
28	2.033	40.61	48.00	-7.39
29	3.160	40.52	48.00	-7.48
30	3.916	40.43	48.00	-7.57
31	3.229	40.42	48.00	-7.58
32	3.081	40.42	48.00	-7.58
33	2.821	40.32	48.00	-7.68
34	1.967	39.81	48.00	-8.19
35	4.259	39.74	48.00	-8.26
36	3.645	39.53	48.00	-8.47
37	3.600	39.53	48.00	-8.47
38	1.901	39.51	48.00	-8.49
39	4.689	38.95	48.00	-9.05
40	0.839	38.90	48.00	-9.10
41	0.450	34.99	48.00	-13.01



COMPATIBLE ELECTRONICS

COMPATIBLE ELECTRONICS

08/07/2001 18:38:53

NET NEAR U
RAP-1
115 WHITE LEAD
FCC B
TEST ENGINEER : BENIGNO CHAVEZ

41 highest peaks above -50.00 dB of CLASS B limit line
Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	19.971	61.57	48.00	13.57
2	0.643	47.09	48.00	-0.91
3	2.130	44.81	48.00	-3.19
4	2.184	44.01	48.00	-3.99
5	3.283	42.84	48.00	-5.16
6	3.201	42.73	48.00	-5.27
7	2.220	42.71	48.00	-5.29
8	1.983	42.71	48.00	-5.29
9	2.050	42.61	48.00	-5.39
10	2.729	42.52	48.00	-5.48
11	2.278	42.41	48.00	-5.59
12	2.833	42.32	48.00	-5.68
13	3.031	42.12	48.00	-5.88
14	2.562	42.02	48.00	-5.98
15	3.081	41.93	48.00	-6.07
16	2.366	41.91	48.00	-6.09
17	1.934	41.81	48.00	-6.19
18	2.968	41.72	48.00	-6.28
19	3.351	41.44	48.00	-6.56
20	3.803	41.26	48.00	-6.74
21	3.556	41.25	48.00	-6.75
22	3.408	41.04	48.00	-6.96
23	2.764	41.02	48.00	-6.98
24	1.854	40.91	48.00	-7.09
25	3.585	40.85	48.00	-7.15
26	4.014	40.67	48.00	-7.33
27	2.478	40.61	48.00	-7.39
28	1.816	40.61	48.00	-7.39
29	0.835	40.60	48.00	-7.40
30	1.026	40.50	48.00	-7.50
31	3.645	40.45	48.00	-7.55
32	2.893	40.32	48.00	-7.68
33	0.863	40.30	48.00	-7.70
34	1.319	40.20	48.00	-7.80
35	0.577	40.19	48.00	-7.81
36	0.462	40.19	48.00	-7.81
37	3.147	40.13	48.00	-7.87
38	1.115	40.10	48.00	-7.90
39	0.458	39.99	48.00	-8.01
40	0.517	39.89	48.00	-8.11
41	0.450	37.29	48.00	-10.71

COMPATIBLE ELECTRONICS

08/07/2001 18:38:53

NET NEAR U
RAP-1
115 WHITE LEAD
FCC B
TEST ENGINEER :_____
BENIGNO CHAVEZ

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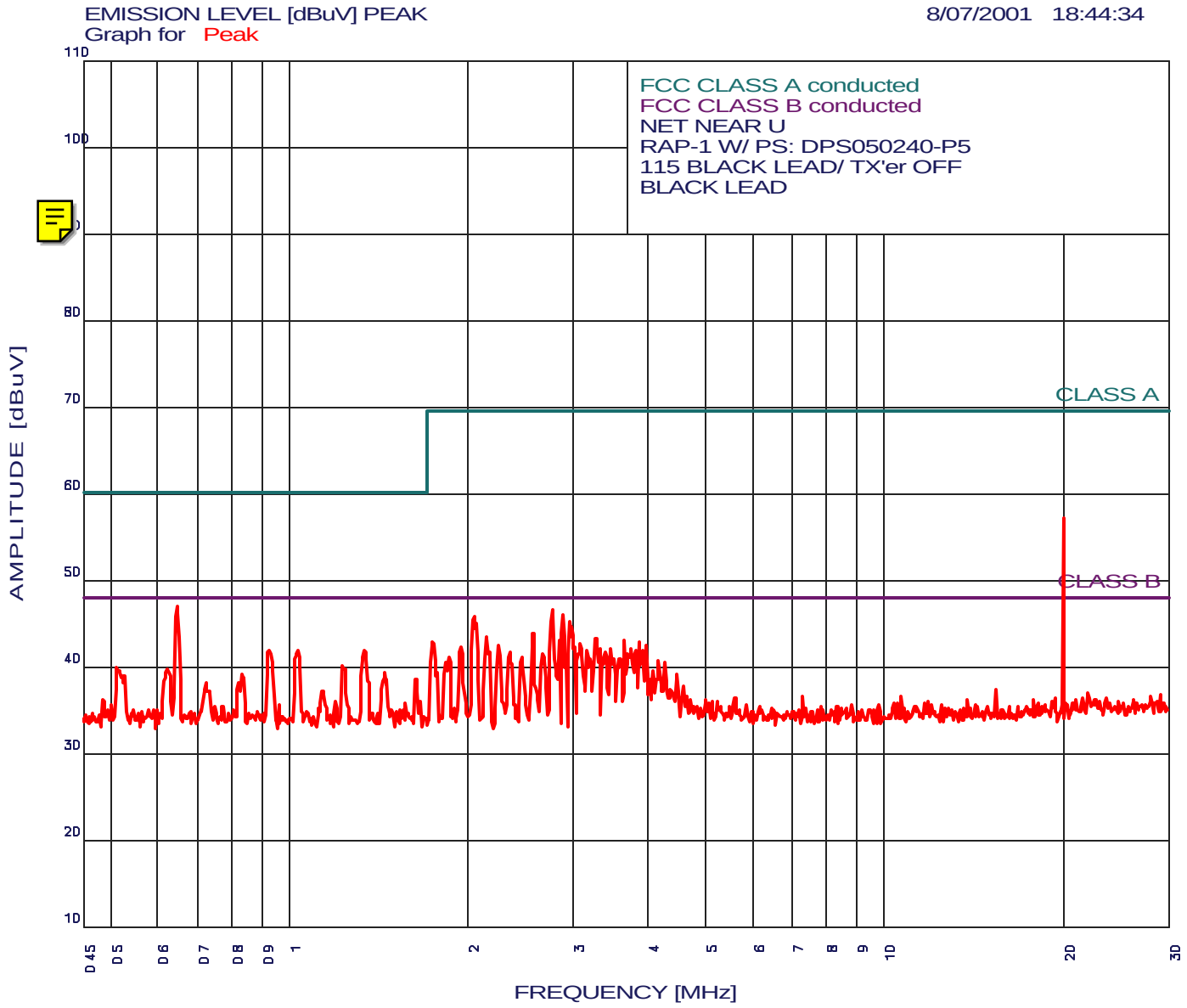
2 highest peaks above -50.00 dB of CLASS B limit line
Peak criteria : 0.10 dB, Curve : Average

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.638	33.66	48.00	-14.34
2	0.450	0.00	48.00	-48.00

CONDUCTED EMISSIONS
DATA SHEETS FOR THE DIGITAL PORTION



COMPATIBLE ELECTRONICS

COMPATIBLE ELECTRONICS

8/07/2001 18:44:34

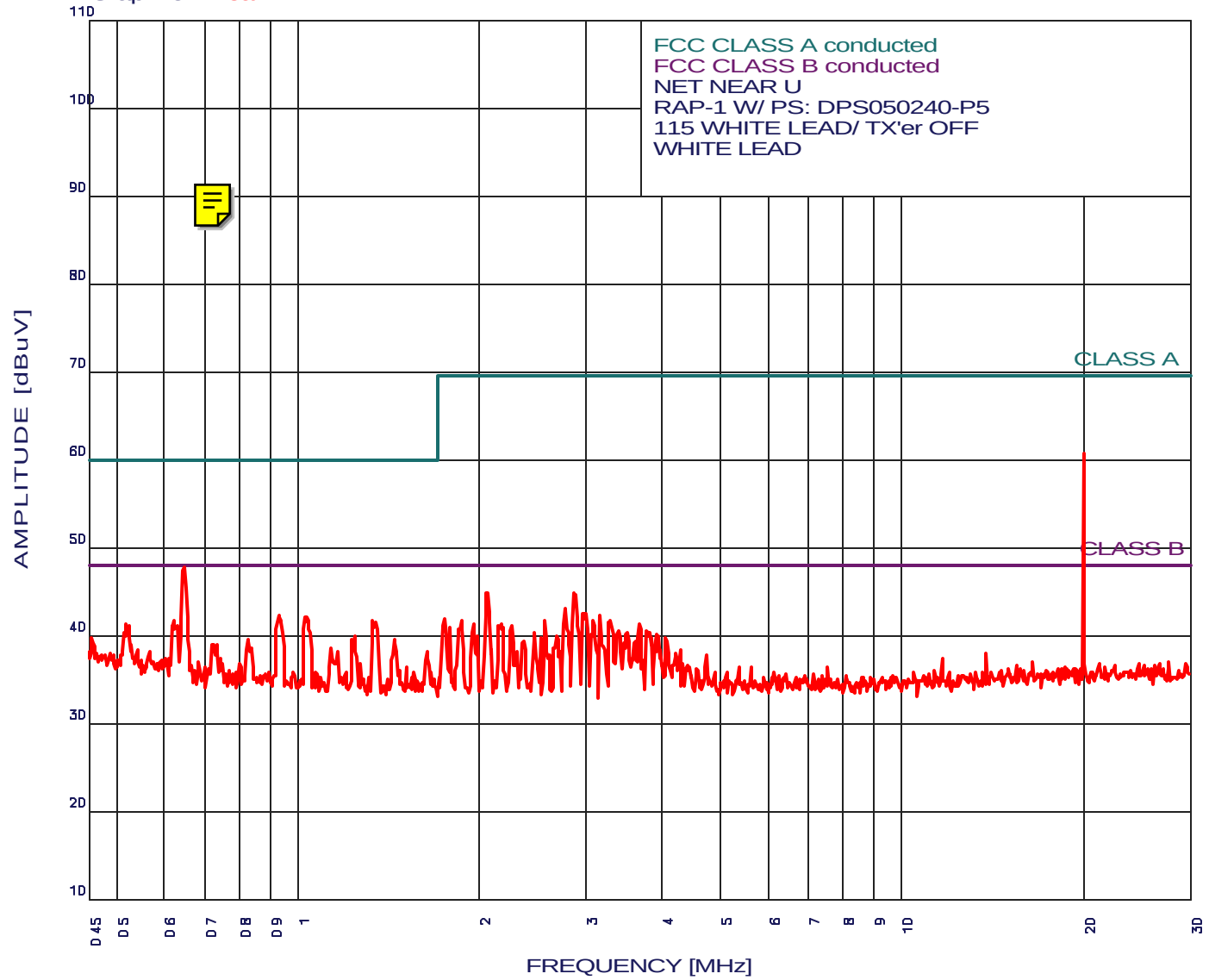
NET NEAR U
RAP-1
115 BLACK LEAD/ TX'er OFF
FCC A
TEST ENGINEER :_____
BENIGNO CHAVEZ

41 highest peaks above -50.00 dB of CLASS A limit line
Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	19.971	57.10	69.50	-12.40
2	0.646	46.89	60.00	-13.11
3	0.924	41.90	60.00	-18.10
4	1.336	41.80	60.00	-18.20
5	1.034	41.80	60.00	-18.20
6	1.223	40.10	60.00	-19.90
7	0.513	39.89	60.00	-20.11
8	0.625	39.69	60.00	-20.31
9	1.447	39.40	60.00	-20.60
10	0.831	39.20	60.00	-20.80
11	1.635	38.60	60.00	-21.40
12	0.724	38.09	60.00	-21.91
13	1.139	37.10	60.00	-22.90
14	2.764	46.52	69.50	-22.98
15	2.881	45.92	69.50	-23.58
16	2.041	45.71	69.50	-23.79
17	0.485	36.09	60.00	-23.91
18	1.193	36.00	60.00	-24.00
19	1.663	35.91	60.00	-24.09
20	1.567	35.80	60.00	-24.20
21	2.956	45.12	69.50	-24.38
22	0.502	35.59	60.00	-24.41
23	0.958	35.50	60.00	-24.50
24	0.748	35.39	60.00	-24.61
25	0.774	35.29	60.00	-24.71
26	2.981	44.62	69.50	-24.88
27	0.546	35.09	60.00	-24.91
28	1.554	35.00	60.00	-25.00
29	0.599	34.99	60.00	-25.01
30	0.592	34.99	60.00	-25.01
31	1.070	34.90	60.00	-25.10
32	0.885	34.90	60.00	-25.10
33	0.682	34.89	60.00	-25.11
34	0.565	34.89	60.00	-25.11
35	1.510	34.80	60.00	-25.20
36	0.691	34.69	60.00	-25.31
37	0.466	34.69	60.00	-25.31
38	1.406	34.60	60.00	-25.40
39	2.562	43.92	69.50	-25.58
40	1.097	34.20	60.00	-25.80
41	0.450	33.99	60.00	-26.01

EMISSION LEVEL [dBuV] PEAK
Graph for Peak

8/07/2001 18:48:14



COMPATIBLE ELECTRONICS

8/07/2001 18:48:14

NET NEAR U
RAP-1
115 WHITE LEAD/ TX'er OFF
FCC A
TEST ENGINEER :_____
BENIGNO CHAVEZ

41 highest peaks above -50.00 dB of CLASS A limit line
Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	19.971	60.67	69.50	-8.83
2	0.649	47.79	60.00	-12.21
3	0.927	42.20	60.00	-17.80
4	1.026	42.10	60.00	-17.90
5	1.330	41.70	60.00	-18.30
6	0.622	41.69	60.00	-18.31
7	0.519	41.19	60.00	-18.81
8	1.238	39.90	60.00	-20.10
9	0.456	39.69	60.00	-20.31
10	1.441	39.60	60.00	-20.40
11	0.824	39.60	60.00	-20.40
12	0.733	38.99	60.00	-21.01
13	0.727	38.99	60.00	-21.01
14	1.134	38.60	60.00	-21.40
15	0.542	38.29	60.00	-21.71
16	1.635	38.20	60.00	-21.80
17	1.163	38.20	60.00	-21.80
18	0.567	38.19	60.00	-21.81
19	0.450	38.19	60.00	-21.81
20	0.487	37.89	60.00	-22.11
21	0.742	37.29	60.00	-22.71
22	0.602	37.29	60.00	-22.71
23	0.594	37.19	60.00	-22.81
24	0.685	36.99	60.00	-23.01
25	0.800	36.79	60.00	-23.21
26	1.271	36.70	60.00	-23.30
27	1.510	36.40	60.00	-23.60
28	0.700	36.39	60.00	-23.61
29	0.674	35.99	60.00	-24.01
30	0.768	35.89	60.00	-24.11
31	1.554	35.80	60.00	-24.20
32	1.198	35.80	60.00	-24.20
33	0.984	35.80	60.00	-24.20
34	0.787	35.79	60.00	-24.21
35	1.663	35.71	60.00	-24.29
36	1.070	35.70	60.00	-24.30
37	0.897	35.70	60.00	-24.30
38	2.856	44.82	69.50	-24.68
39	2.050	44.81	69.50	-24.69
40	1.093	35.20	60.00	-24.80
41	1.542	35.10	60.00	-24.90

PROCESSING GAIN DATA SHEETS

6.6 Processing Gain of a Direct Sequence Spread Spectrum Measurement

6.6.1 Test Instruments and Support Units

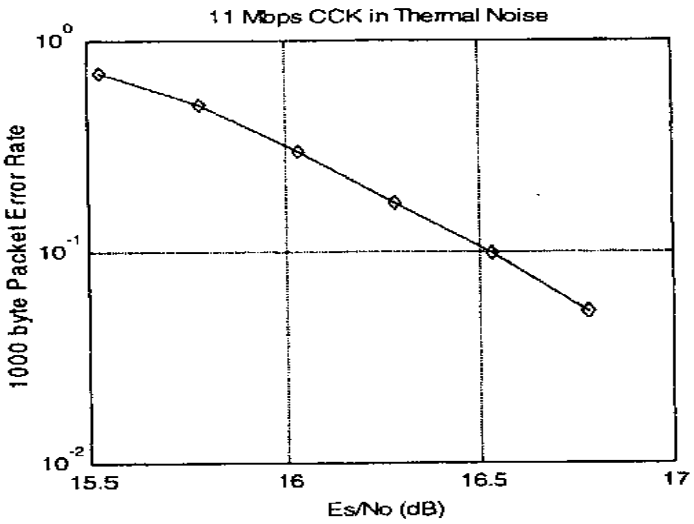
Description & Manufacturer	Model No.	Serial No.
Hewlett Packard Spectrum Analyzer, 9kHz to 22GHz	**HP8593E**	**S942848**
Marconi Signal Generator, 10kHz to 2.7GHz	**2031**	**953426**
Hewlett Packard Power Meter,	**HP438A**	**S952633**
Hewlett Packard Power Sensor, -20 to –70dBm	**HP8481D**	**SCD15369**
Hewlett Packard Attenuator, 6dB to 10 dB	**HP8493A**	**NA**
Hewlett Packard Step Attenuator, 1dB steps	**HP8494A**	**NA**
Hewlett Packard Step Attenuator, 10dB steps	**HP8495D**	**NA**
Hewlett Packard Power Splitter,	**HP11667B**	**04390**
Campaq Laptop Computer (Qty 2),	**Armada 1700**	**NA**

6.6.2 Method of Measurement

Since the product is used for data transmission, so the recommended BER is 10^{-5}. One packet contents 8 bits, so the recommended Packet Error Rate (PER) is 8%. The processing gain may be measured using the CW jamming margin method. Figure 1 shows the test configuration. The test consists of stepping a signal generator in 50 kHz increments across the passband of the system. At each point, the generator level required to produce the recommended Bit Error Rate (BER) is recorded. This level is jammer level. The output power of the transmitting unit is measured at the same point. The jammer to Signal (J/S) ratio is then calculated. Discard the worst 20% of the J/S data points. The lowest remaining J/S ratio is used when calculating the Process Gain.

The reference PER is specified as 8%. The corresponding Es/No (signal to noise ratio per symbol) is 16.4 dB. The curve is attached as below.

1.1 1000 byte PER vs. Es/No



This value and the measured J/S ratio are used in the following equation to calculate the Process Gain (Gp) of the system.

$$Gp = (S/N)_o + Mj + Lsys$$

Where:

$(S/N)_o$: Signal to noise ratio for the chosen BER.

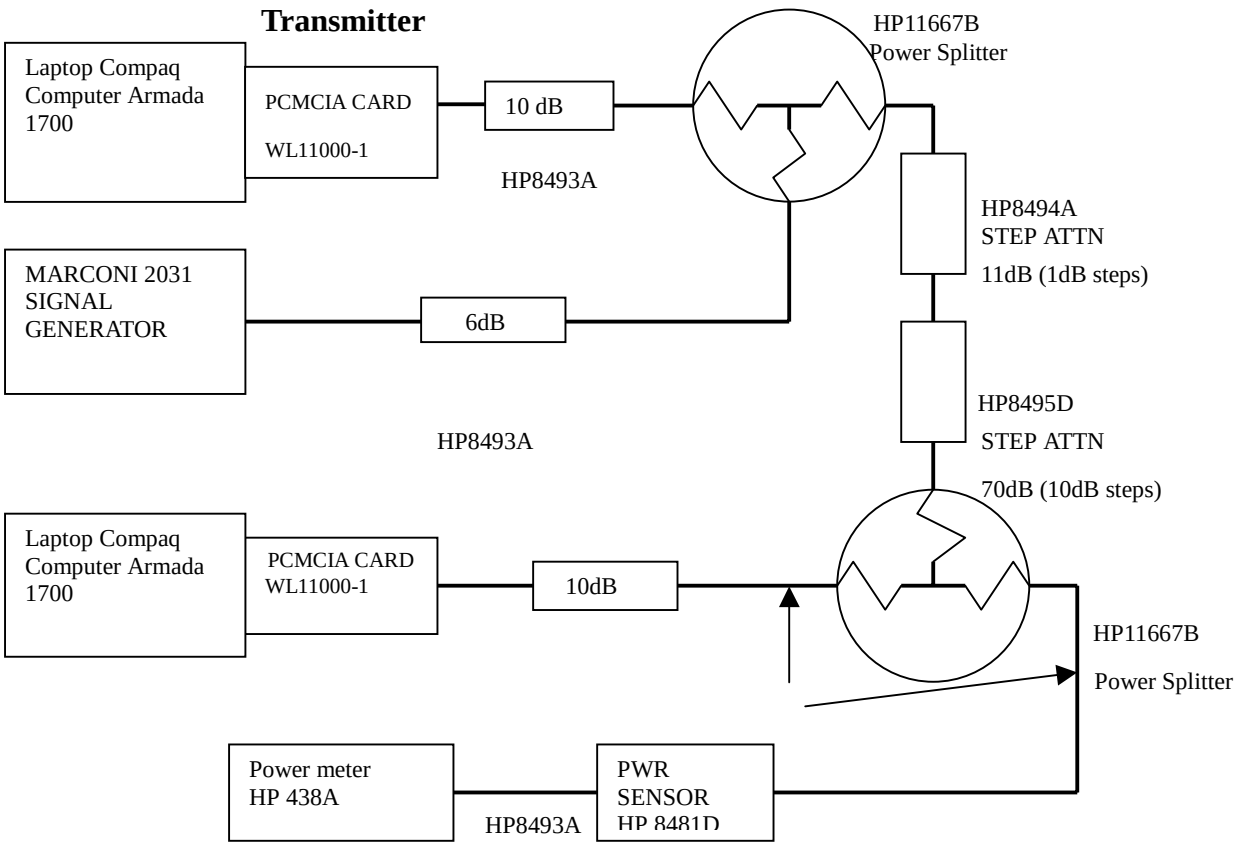
Mj : Maximum jammer to Signal Ratio recorded at the detected BER.

Lsys : System losses . For the purpose of this processing gain calculation, we assume Lsys at its minimum value of 2 dB.

Applicable Reference Documents.

1. “HFA3861A Direct Sequence Spread Spectrum Baseband Processor” Harris Corporation Semiconductor Sector Preliminary Data Sheet, Melbourne FL, July 1999.
2. “M-ary Orthogonal Keying BER Curve”.

6.6.3 Test Setup



6.6.4 Test Procedure

Obtain the simplex link shown. Perform all independent instrumentation calibrations prior to this procedure. Set operating power levels using fixed and variable attenuators in system to meet the following objectives:

1. Signal Power at receiver approximately –60dBm (above thermal sensitivity such that thermal noise does not cause bit errors.

2. Signal Power at power meter between –20 and –30dBm for optimal linearity.

3. Use spectrum analyzer to monitor test.

4. Ensure that CW Jammer generator RF output is disabled and measure the power at the power meter port using the power meter. This is the relative signal power, Sr.

5. Disable Transmitter, and set CW Jammer generator RF output frequency equal to the carrier frequency and enable generator output. Set reference CW Jammer power level at power meter port 8.4dB below Sr (minimum J/S, or 10dB processing gain reference level). Note the power level setting on the generator, this is the reference CW Jammer power setting, Jr.

6. Disable CW Jammer, re-establish link. PER test should be operating essentially error -free.

7. Enable CW Jammer at the reference power level and verify that the PER test indicates a PER of less than 8%.

8. Alternatively, adjust the CW Jammer level to that which causes 8% PER and verify that the S/J is less than 8.4dB.

9. Repeat step 7 for uniform steps in frequency increments of 50 kHz across the receiver passband with the CW Jammer. In this case the receiver passband is +/- 8.5 MHz.

The numerical data associated with the following radio channel is tabulated and presented for :

Channel 1 :2412 MHz
Channel 6 :2437 MHz
Channel 11 :2462 MHz

6.6.5 EUT Operating condition

Software provided by client to set the EUT to transmit at lowest, middle and highest channel.

6.6.6 Climate Condition

The temperature and related humidity: 25°C and 50%

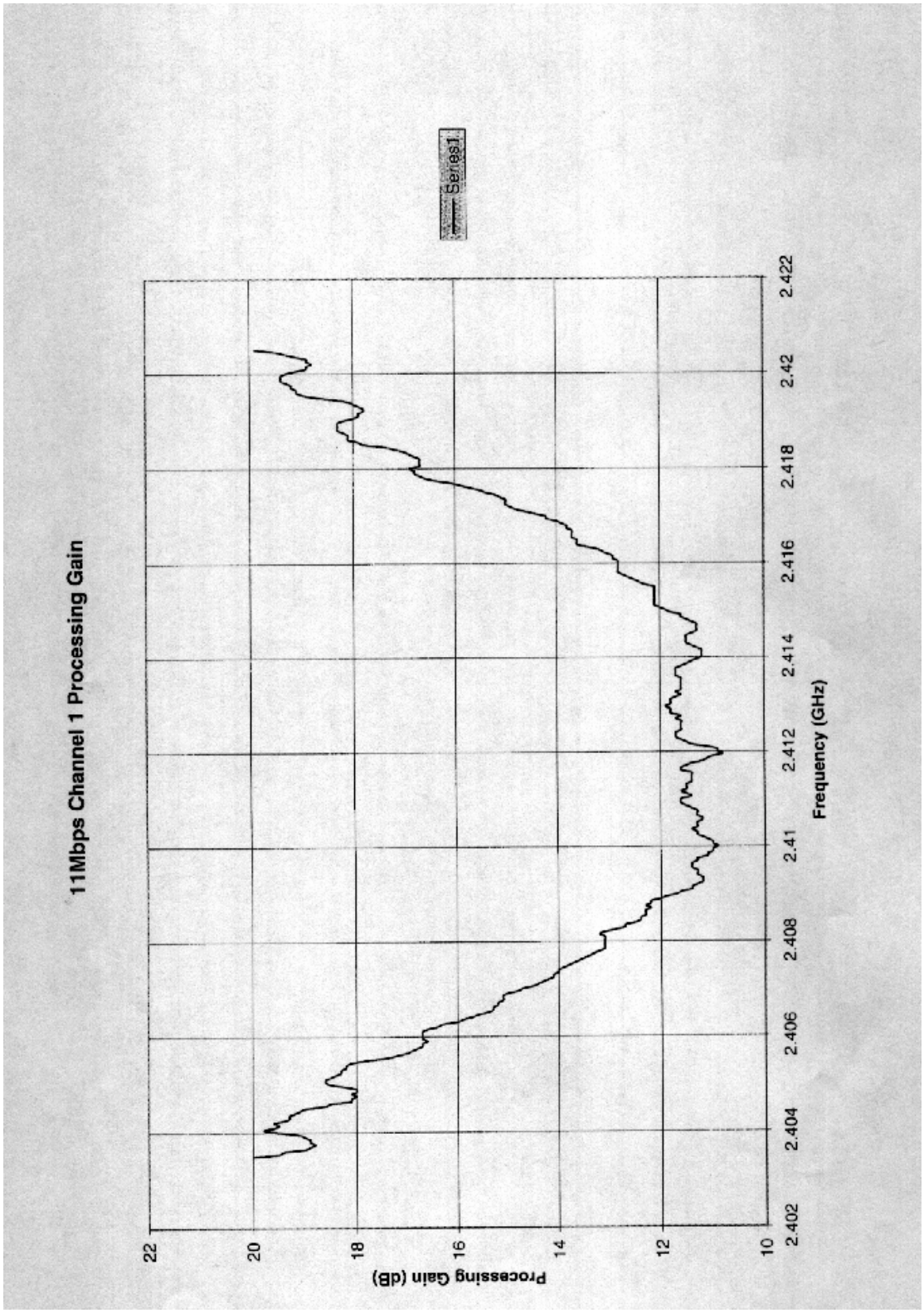
6.6.7 Test Results

Although the theoretical processing gain is lower than 10 dB, but the CCK coding provides an extra coding gain of 2.2dB.

11Mbps CHANNEL 1 Processing Gain						
Gp = (S/N)。+ Mj + Lsys						
Freq. (GHz)	Gp (dB)	(S/N)。(dB)	Mj = J/S (dB)	Lsys (dB)	Jammer (dBm)	LVL (dBm)
2.4095	11.3	16.4	-7.1	2	-47.1	-0.7
2.40955	11.4	16.4	-7	2	-47	-0.6
2.4096	11.4	16.4	-7	2	-47	-0.6
2.40965	11.4	16.4	-7	2	-47	-0.6
2.4097	11.3	16.4	-7.1	2	-47.1	-0.7
2.40975	11.3	16.4	-7.1	2	-47.1	-0.7
2.4098	11.1	16.4	-7.3	2	-47.3	-0.9
2.40985	11.1	16.4	-7.3	2	-47.3	0.9
2.4099	11	16.4	-7.4	2	-47.4	-1
2.40995	11	16.4	-7.4	2	-47.4	-1
2.41	10.9	16.4	-7.5	2	-47.5	-1.1
2.41005	11	16.4	-7.4	2	-47.4	-1
2.4101	11	16.4	-7.4	2	-47.4	-1
2.41015	11.1	16.4	-7.3	2	-47.3	-0.9
2.4102	11.2	16.4	-7.2	2	-47.2	-0.8
2.41025	11.3	16.4	-7.1	2	-47.1	-0.7
2.4103	11.3	16.4	-7.1	2	-47.1	-0.7
2.41035	11.4	16.4	-7	2	-47	-0.6
2.4104	11.3	16.4	-7.1	2	-47.1	-0.7
2.41045	11.3	16.4	-7.1	2	-47.1	-0.7
2.4105	11.3	16.4	-7.1	2	-47.1	-0.7
2.41055	11.2	16.4	-7.2	2	-47.2	-0.8
2.4106	11.2	16.4	-7.2	2	-47.2	-0.8
2.41065	11.3	16.4	-7.1	2	-47.1	-0.7
2.4107	11.3	16.4	-7.1	2	-47.1	-0.7
2.41075	11.3	16.4	-7.1	2	-47.1	-0.7
2.4108	11.4	16.4	-7	2	-47	-0.6
2.41085	11.5	16.4	-6.9	2	-46.9	-0.5
2.4109	11.6	16.4	-6.8	2	-46.8	-0.4
2.41095	11.6	16.4	-6.8	2	-46.8	-0.4
2.411	11.6	16.4	-6.8	2	-46.8	-0.4
2.41105	11.4	16.4	-7	2	-47	-0.6
2.4111	11.5	16.4	-6.9	2	-46.9	-0.5
2.41115	11.6	16.4	-6.8	2	-46.8	-0.4

11Mbps CHANNEL 1 Processing Gain						
Gp = (S/N)。+ Mj + Lsys						
Freq.	Gp	(S/N)。	Mj = J/S	Lsys	Jammer	LVL
(GHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(dBm)
2.4112	11.5	16.4	-6.9	2	-46.9	-0.5
2.41125	11.5	16.4	-6.9	2	-46.9	-0.5
2.4113	11.5	16.4	-6.9	2	-46.9	-0.5
2.41135	11.4	16.4	-7	2	-47	-0.6
2.4114	11.4	16.4	-7	2	-47	-0.6
2.41145	11.4	16.4	-7	2	-47	-0.6
2.4115	11.4	16.4	-7	2	-47	-0.6
2.41155	11.4	16.4	-7	2	-47	-0.6
2.4116	11.6	16.4	-6.8	2	-46.8	-0.4
2.41165	11.6	16.4	-6.8	2	-46.8	-0.4
2.4117	11.5	16.4	-6.9	2	-46.9	-0.5
2.41175	11.4	16.4	-7	2	-47	-0.6
2.4118	11.2	16.4	-7.2	2	-47.2	-0.8
2.41185	11.1	16.4	-7.3	2	-47.3	-0.9
2.4119	11	16.4	-7.4	2	-47.4	-1
2.41195	10.8	16.4	-7.6	2	-47.6	-1.2
2.412	10.9	16.4	-7.5	2	-47.5	-1.1
2.41205	10.9	16.4	-7.5	2	-47.5	-1.1
2.4121	11.1	16.4	-7.3	2	-47.3	-0.9
2.41215	11.4	16.4	-7	2	-47	-0.6
2.4122	11.5	16.4	-6.9	2	-46.9	-0.5
2.41225	11.6	16.4	-6.8	2	-46.8	-0.4
2.4123	11.7	16.4	-6.7	2	-46.7	-0.3
2.41235	11.7	16.4	-6.7	2	-46.7	-0.3
2.4124	11.7	16.4	-6.7	2	-46.7	-0.3
2.41245	11.6	16.4	-6.8	2	-46.8	-0.4
2.4125	11.6	16.4	-6.8	2	-46.8	-0.4
2.41255	11.6	16.4	-6.8	2	-46.8	-0.4
2.4126	11.6	16.4	-6.8	2	-46.8	-0.4
2.41265	11.6	16.4	-6.8	2	-46.8	-0.4
2.4127	11.7	16.4	-6.7	2	-46.7	-0.3
2.41275	11.6	16.4	-6.8	2	-46.8	-0.4
2.4128	11.8	16.4	-6.6	2	-46.6	-0.2
2.41285	11.8	16.4	-6.6	2	-46.6	-0.2

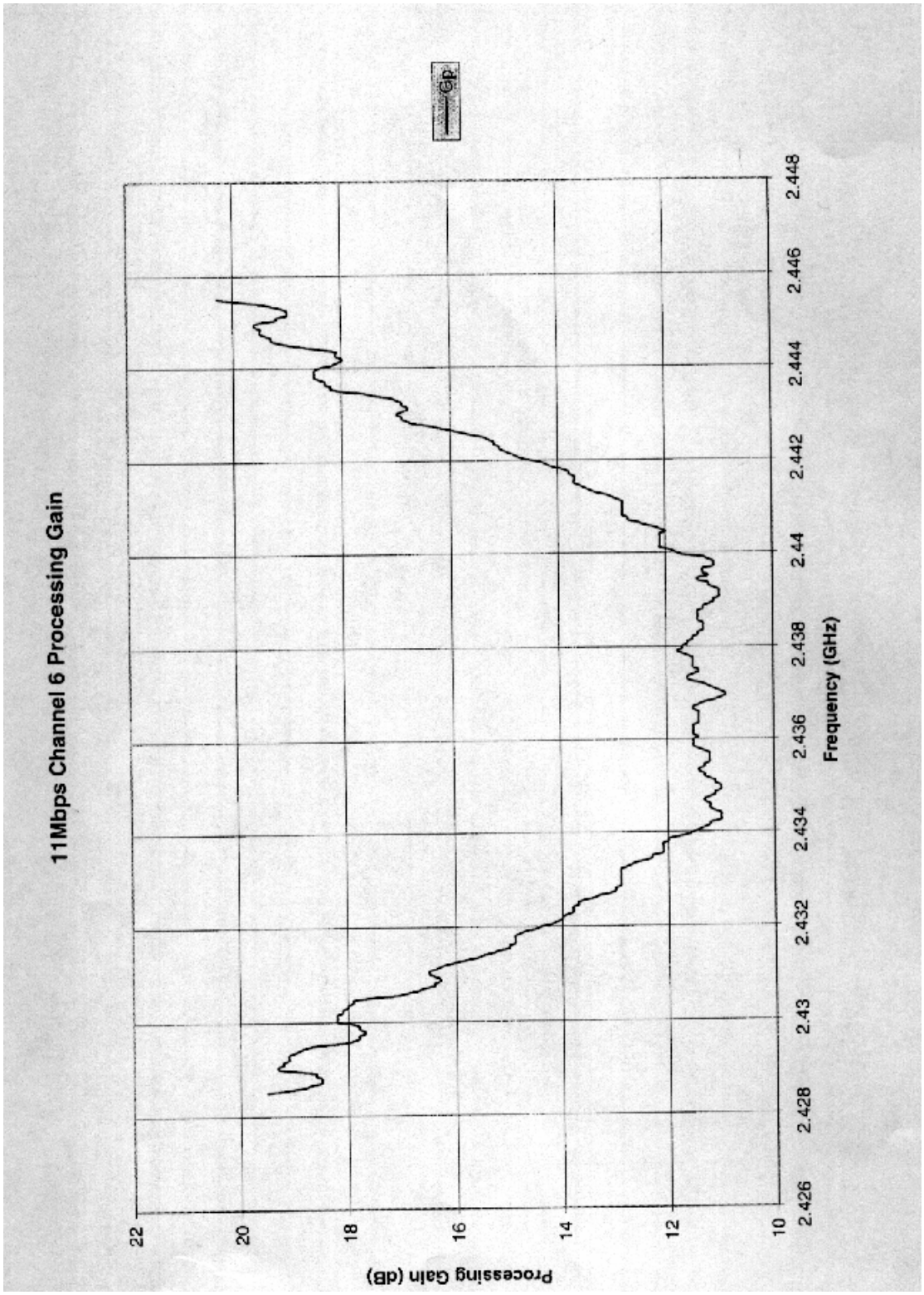
11Mbps CHANNEL 1 Processing Gain						
Gp = (S/N)。+ Mj + Lsys						
Freq.	**Gp**	**(S/N)。**	**Mj = J/S**	**Lsys**	**Jammer**	**LVL**
(GHz)	**(dB)**	**(dB)**	**(dB)**	**(dB)**	**(dBm)**	**(dBm)**
2.4129	11.8	16.4	-6.6	2	-46.6	-0.2
2.41295	11.9	16.4	-6.5	2	-46.5	-0.1
2.413	11.8	16.4	-6.6	2	-46.6	-0.2
2.41305	11.8	16.4	-6.6	2	-46.6	-0.2
2.4131	11.8	16.4	-6.6	2	-46.6	-0.2
2.41315	11.7	16.4	-6.7	2	-46.7	-0.3
2.4132	11.6	16.4	-6.8	2	-46.8	-0.4
2.41325	11.7	16.4	-6.7	2	-46.7	-0.3
2.4133	11.6	16.4	-6.8	2	-46.8	-0.4
2.41335	11.6	16.4	-6.8	2	46.8	-0.4
2.4134	11.6	16.4	-6.8	2	-46.8	-0.4
2.41345	11.6	16.4	-6.8	2	-46.8	-0.4
2.4135	11.6	16.4	-6.8	2	-46.8	-0.4
2.41355	11.7	16.4	-6.8	2	-46.8	-0.4
2.4136	11.6	16.4	-6.7	2	-46.7	-0.3
2.41365	11.7	16.4	-6.7	2	-46.7	-0.3
2.4137	11.7	16.4	-6.7	2	-46.7	-0.3
2.41375	11.7	16.4	-6.7	2	-46.7	-0.3
2.4138	11.6	16.4	-6.8	2	-46.8	-0.4
2.41385	11.5	16.4	-6.9	2	-46.9	-0.5
2.4139	11.4	16.4	-7	2	-47	-0.6
2.41395	11.3	16.4	-7.1	2	-47.1	-0.7
2.414	11.2	16.4	-7.2	2	-47.2	-0.8
2.41405	11.2	16.4	-7.2	2	-47.2	-0.8
2.4141	11.2	16.4	-7.2	2	-47.2	-0.8
2.41415	11.2	16.4	-7.2	2	-47.2	-0.8
2.4142	11.3	16.4	-7.1	2	-47.1	-0.7
2.41425	11.4	16.4	-7	2	-47	-0.6
2.4143	11.5	16.4	-6.9	2	-46.9	-0.5
2.41435	11.5	16.4	-6.9	2	-46.9	-0.5
2.4144	11.5	16.4	-6.9	2	-46.9	-0.5
2.41445	11.5	16.4	-6.9	2	-46.9	-0.5
2.4145	11.4	16.4	-7	2	-47	-0.6
Processing Gain : 11.5 dB						


11Mbps Channel 1 Processing Gain
Series1
Processing Gain (dB)
22
20
18
16
14
12
10
Frequency (GHz)
2.402
2.404
2.406
2.408
2.41
2.412
2.414
2.416
2.418
2.42
2.422

11Mbps CHANNEL 6 Processing Gain						
Gp = (S/N)。+ Mj + Lsys						
Freq.	Gp	(S/N)。	Mj = J/S	Lsys	Jammer	LVL
(GHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(dBm)
2.4345	11.2	16.4	-7.2	2	-47.2	-3.1
2.43455	11.2	16.4	-7.2	2	-47.2	-3.1
2.4346	11.2	16.4	-7.2	2	-47.2	-3.1
2.43465	11.3	16.4	-7.1	2	-47.1	-3
2.4347	11.3	16.4	-7.1	2	-47.1	-3
2.43475	11.2	16.4	-7.2	2	-47.2	-3.1
2.4348	11.1	16.4	-7.3	2	-47.3	-3.2
2.43485	11.1	16.4	-7.3	2	-47.3	-3.2
2.4349	11	16.4	-7.4	2	-47.4	-3.3
2.43495	11	16.4	-7.4	2	-47.4	-3.3
2.435	11	16.4	-7.4	2	-47.4	-3.3
2.43505	11.1	16.4	-7.3	2	-47.3	-3.2
2.4351	11.1	16.4	-7.3	2	-47.3	-3.2
2.43515	11.2	16.4	-7.2	2	-47.2	-3.1
2.4352	11.3	16.4	-7.1	2	-47.1	-3
2.43525	11.3	16.4	-7.1	2	-47.1	-3
2.4353	11.4	16.4	-7	2	-47	-2.9
2.43535	11.4	16.4	-7	2	-47	-2.9
2.4354	11.3	16.4	-7.1	2	-47.1	-3
2.43545	11.3	16.4	-7.1	2	-47.1	-3
2.4355	11.2	16.4	-7.2	2	-47.2	-3.1
2.43555	11.2	16.4	-7.2	2	-47.2	-3.1
2.4356	11.2	16.4	-7.2	2	-47.2	-3.1
2.43565	11.2	16.4	-7.2	2	-47.2	-3.1
2.4357	11.2	16.4	-7.2	2	-47.2	-3.1
2.43575	11.3	16.4	-7.1	2	-47.1	-3
2.4358	11.4	16.4	-7	2	-47	-2.9
2.43585	11.5	16.4	-6.9	2	-46.9	-2.8
2.4359	11.5	16.4	-6.9	2	-46.9	-2.8
2.43595	11.5	16.4	-6.9	2	-476.9	-2.8
2.436	11.5	16.4	-6.9	2	-46.9	-2.8
2.43605	11.4	16.4	-7	2	-47	-2.9
2.4361	11.5	16.4	-6.9	2	-46.9	-2.8
2.43615	11.5	16.4	-6.9	2	-46.9	-2.8

11Mbps CHANNEL 6 Processing Gain						
Gp = (S/N)。+ Mj + Lsys						
Freq.	Gp	(S/N)。	Mj = J/S	Lsys	Jammer	LVL
(GHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(dBm)
2.4362	11.5	16.4	-6.9	2	-46.9	-2.8
2.43625	11.5	16.4	-6.9	2	-46.9	-2.8
2.4363	11.5	16.4	-6.9	2	-46.9	-2.8
2.43635	11.4	16.4	-7	2	-47	-2.9
2.4364	11.4	16.4	-7	2	-47	-2.9
2.43645	11.4	16.4	-7	2	-47	-2.9
2.4365	11.4	16.4	-7	2	-47	-2.9
2.43655	11.4	16.4	-7	2	-47	-2.9
2.4366	11.4	16.4	-7	2	-47	-2.9
2.43665	11.5	16.4	-6.9	2	-46.9	-2.8
2.4367	11.5	16.4	-6.9	2	-46.9	-2.8
2.43675	11.4	16.4	-7	2	-47	-2.9
2.4368	11.3	16.4	-7.1	2	-47.1	-3
2.43685	11.1	16.4	-7.3	2	-47.3	-3.2
2.4369	11	16.4	-7.4	2	-47.4	-3.3
2.43695	10.9	16.4	-7.5	2	-47.5	-3.4
2.437	10.9	16.4	-7.5	2	-47.5	-3.4
2.43705	11	16.4	-7.4	2	-47.4	-3.3
2.4371	11.1	16.4	-7.3	2	-47.3	-3.2
2.43715	11.2	16.4	-7.2	2	-47.2	-3.1
2.4372	11.3	16.4	-7.1	2	-47.1	-3
2.43725	11.5	16.4	-6.9	2	-46.9	-2.8
2.4373	11.6	16.4	-6.8	2	-46.8	-2.7
2.43735	11.6	16.4	-6.8	2	-46.8	-2.7
2.4374	11.5	16.4	-6.9	2	-46.9	-2.8
2.43745	11.4	16.4	-7	2	-47	-2.9
2.4375	11.4	16.4	-7	2	-47	-2.9
2.43755	11.5	16.4	-6.9	2	-46.9	-2.8
2.4376	11.5	16.4	-6.9	2	-46.9	-2.8
2.43765	11.5	16.4	-6.9	2	-46.9	-2.8
2.4377	11.5	16.4	-6.9	2	-46.9	-2.8
2.43775	11.5	16.4	-6.9	2	-46.9	-2.8
2.4378	11.6	16.4	-6.8	2	-46.8	-2.7
2.43785	11.7	16.4	-6.7	2	-46.7	-2.6

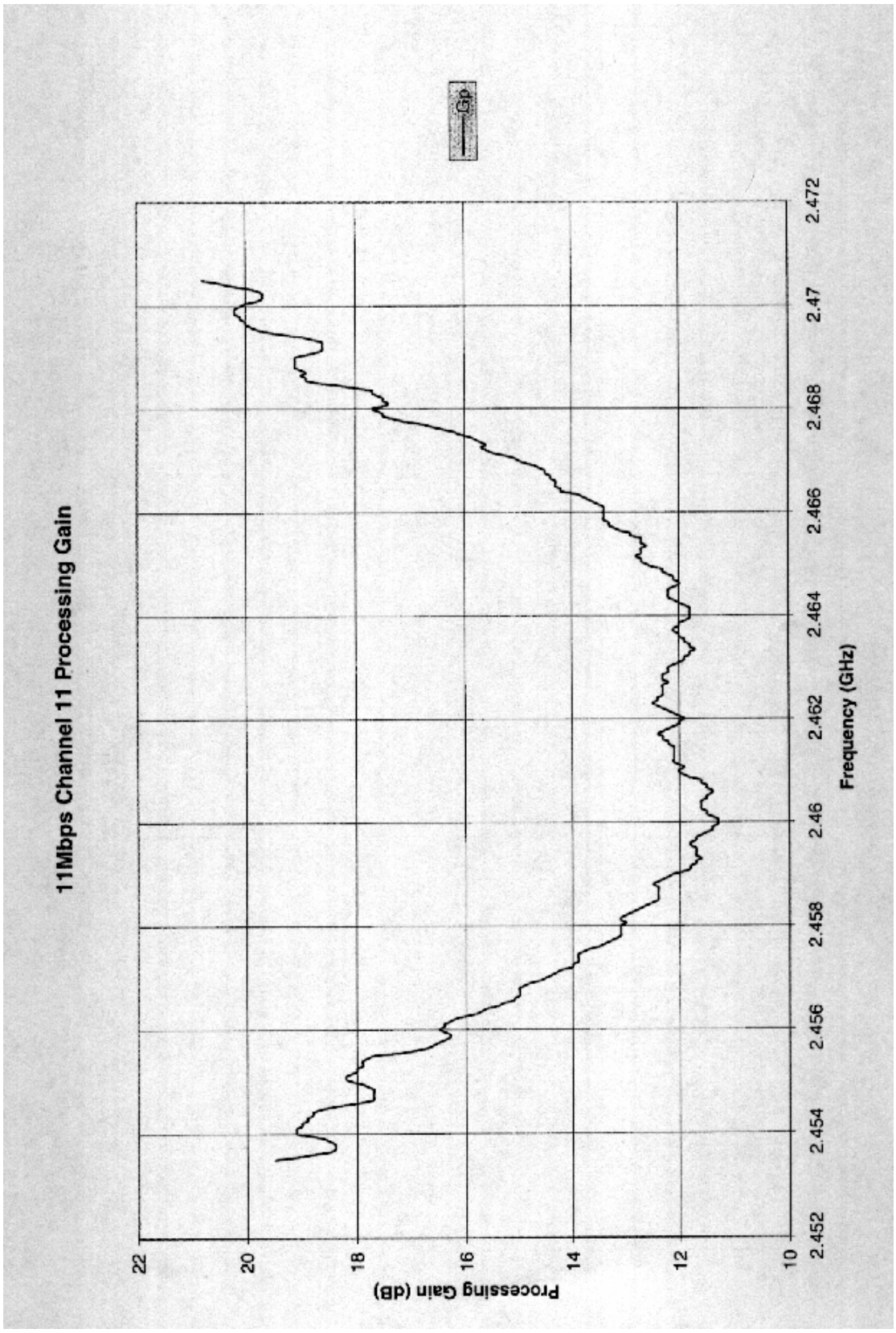
11Mbps CHANNEL 6 Processing Gain						
Gp = (S/N)。+ Mj + Lsys						
Freq.	**Gp**	**(S/N)。**	**Mj = J/S**	**Lsys**	**Jammer**	**LVL**
(GHz)	**(dB)**	**(dB)**	**(dB)**	**(dB)**	**(dBm)**	**(dBm)**
2.4379	11.8	16.4	-6.6	2	-46.6	-2.5
2.43795	11.7	16.4	-6.7	2	-46.7	-2.6
2.438	11.7	16.4	-6.7	2	-46.7	-2.6
2.43805	11.6	16.4	-6.8	2	-46.8	-2.7
2.4381	11.6	16.4	-6.8	2	-46.8	-2.7
2.43815	11.5	16.4	-6.9	2	-46.9	-2.8
2.4382	11.5	16.4	-6.9	2	-46.9	-2.8
2.43825	11.4	16.4	-7	2	-47	-2.9
2.4383	11.4	16.4	-7	2	-47	-2.9
2.43835	11.3	16.4	-7.1	2	-47.1	-3
2.4384	11.3	16.4	-7.1	2	-47.1	-3
2.43845	11.3	16.4	-7.1	2	-47.1	-3
2.4385	11.3	16.4	-7.1	2	-47.1	-3
2.43855	11.4	16.4	-7	2	-47	-2.9
2.4386	11.4	16.4	-7	2	-47	-2.9
2.43865	11.4	16.4	-7	2	-47	-2.9
2.4387	11.4	16.4	-7	2	-47	-2.9
2.43875	11.4	16.4	-7	2	-47	-2.9
2.4388	11.3	16.4	-7.1	2	-47.1	-3
2.43885	11.3	16.4	-7.1	2	-47.1	-3
2.4389	11.2	16.4	-7.2	2	-47.2	-3.1
2.4895	11.1	16.4	-7.3	2	-47.3	-3.2
2.439	11.1	16.4	-7.3	2	-47.3	-3.2
2.43905	11	16.4	-7.4	2	-47.4	-3.3
2.4391	11	16.4	-7.4	2	-47.4	-3.3
2.43915	11	16.4	-7.4	2	-47.4	-3.3
2.4392	11	16.4	-7.4	2	-47.4	-3.3
2.43925	11.1	16.4	-7.3	2	-47.3	-3.2
2.4393	11.2	16.4	-7.2	2	-47.2	-3.1
2.43935	11.2	16.4	-7.2	2	-47.2	-3.1
2.4394	11.4	16.4	-7	2	-47	-2.9
2.43945	11.4	16.4	-7	2	-47	-2.9
2.4395	11.2	16.4	-7.2	2	-47.2	-3.1
Processing Gain : 11.4 dB						


11Mbps Channel 6 Processing Gain
GP
Processing Gain (dB)
22
20
18
16
14
12
10
2.426
2.428
2.43
2.432
2.434
2.436
2.438
2.44
2.442
2.444
2.446
2.448
Frequency (GHz)

11Mbps CHANNEL 11 Processing Gain						
Gp = (S/N)。+ Mj + Lsys						
Freq.	**Gp**	**(S/N)。**	**Mj = J/S**	**Lsys**	**Jammer**	**LVL**
(GHz)	**(dB)**	**(dB)**	**(dB)**	**(dB)**	**(dBm)**	**(dBm)**
2.4595	11.7	16.4	-6.7	2	-46.7	-4.9
2.45955	11.8	16.4	-6.6	2	-46.6	-4.8
5.4596	11.8	16.4	-6.6	2	-46.6	-4.8
2.45965	11.7	16.4	-6.7	2	-46.7	-4.9
2.4597	11.7	16.4	-6.7	2	-46.7	-4.9
2.45975	11.6	16.4	-6.8	2	-46.8	-5
2.4598	11.5	16.4	-6.9	2	-46.9	-5.1
2.45985	11.4	16.4	-7	2	-47	-5.2
2.4599	11.4	16.4	-7	2	-47	-5.2
2.45995	11.3	16.4	-7.1	2	-47.1	-5.3
2.46	11.3	16.4	-7.1	2	-47.1	-5.3
2.46005	11.3	16.4	-7.1	2	-47.1	-5.3
2.4601	11.4	16.4	-7	2	-47	-5.2
2.46015	11.5	16.4	-6.9	2	-46.9	-5.1
2.4602	11.5	16.4	-6.9	2	-46.9	-5.1
2.46025	11.6	16.4	-6.8	2	-46.8	-5
2.4603	11.6	16.4	-6.8	2	-46.8	-5
2.46035	11.6	16.4	-6.8	2	-46.8	-5
2.4604	11.6	16.4	-6.8	2	-46.8	-5
2.46045	11.5	16.4	-6.9	2	-46.9	-5.1
2.4605	11.5	16.4	-6.9	2	-46.9	-5.1
2.46055	11.4	16.4	-7	2	-47	-5.2
2.4606	11.4	16.4	-7	2	-47	-5.2
2.46065	11.5	16.4	-6.9	2	-46.9	-5.1
2.4607	11.5	16.4	-6.9	2	-46.9	-5.1
2.46075	11.6	16.4	-6.8	2	-46.8	-5
2.4608	11.6	16.4	-6.8	2	-46.8	-5
2.46085	11.8	16.4	-6.6	2	-46.6	-4.8
2.4609	11.9	16.4	-6.5	2	-46.5	-4.7
2.46095	12	16.4	-6.4	2	-46.4	-4.6
2.461	12	16.4	-6.4	2	-46.4	-4.6
2.46105	11.9	16.4	-6.5	2	-46.5	-4.7
2.4611	12	16.4	-6.4	2	-46.4	-4.6
2.46115	12.1	16.4	-6.3	2	-46.3	-4.5

11Mbps CHANNEL 11 Processing Gain						
Gp = (S/N)。+ Mj + Lsys						
Freq.	**Gp**	**(S/N)。**	**Mj = J/S**	**Lsys**	**Jammer**	**LVL**
(GHz)	**(dB)**	**(dB)**	**(dB)**	**(dB)**	**(dBm)**	**(dBm)**
2.4612	12.1	16.4	-6.3	2	-46.3	-4.5
2.46125	12.1	16.4	-6.3	2	-46.3	-4.5
2.4613	12.1	16.4	-6.3	2	-46.3	-4.5
2.46135	12.1	16.4	-6.3	2	-46.3	-4.5
2.4614	12.1	16.4	-6.3	2	-46.3	-4.5
2.46145	12.1	16.4	-6.3	2	-46.3	-4.5
2.4615	12.2	16.4	-6.2	2	-46.2	-4.4
2.46155	12.2	16.4	-6.2	2	-46.2	-4.4
2.4616	12.3	16.4	-6.1	2	-46.1	-4.3
2.46165	12.3	16.4	-6.1	2	-46.1	-4.3
2.4617	12.4	16.4	-6	2	-46	-4.2
2.46175	12.3	16.4	-6.1	2	-46.1	-4.3
2.4618	12.2	16.4	-6.2	2	-46.2	-4.4
2.46185	12.1	16.4	-6.3	2	-46.3	-4.5
2.4619	12	16.4	-6.4	2	-46.4	-4.6
2.46195	12	16.4	-6.4	2	-46.4	-4.6
2.462	11.9	16.4	-6.5	2	-46.5	-4.7
2.46205	12	16.4	-6.4	2	-46.4	-4.6
2.4621	12.1	16.4	-6.3	2	-46.3	-4.5
2.46215	12.2	16.4	-6.2	2	-46.2	-4.4
2.4622	12.3	16.4	-6.1	2	-46.1	-4.3
2.46225	12.4	16.4	-6	2	-46	-4.2
2.4623	12.5	16.4	-5.9	2	-45.9	-4.1
2.46235	12.4	16.4	-6	2	-46	-4.2
2.4624	12.4	16.4	-6	2	-46	-4.2
2.46245	12.3	16.4	-6.1	2	-46.1	-4.3
2.4625	12.3	16.4	-6.1	2	-46.1	-4.3
2.46255	12.3	16.4	-6.1	2	-46.1	-4.3
2.4626	12.3	16.4	-6.1	2	-46.1	-4.3
2.46265	12.3	16.4	-6.1	2	-46.1	-4.3
2.4627	12.2	16.4	-6.2	2	-46.2	-4.4
2.46275	12.3	16.4	-6.1	2	-46.1	-4.3
2.4628	12.3	16.4	-6.1	2	-46.1	-4.3
2.46285	12.3	16.4	-6.1	2	-46.1	-4.3

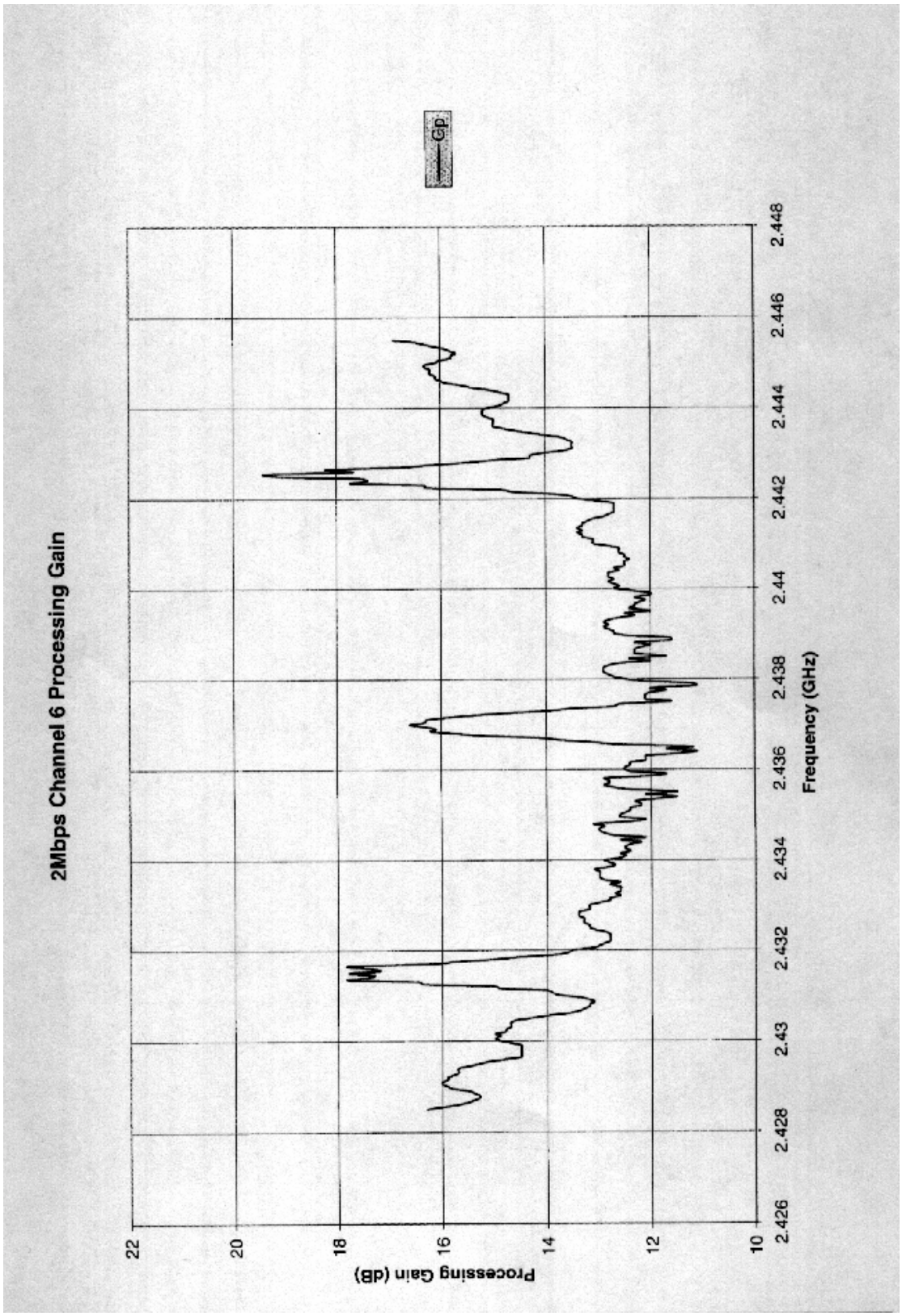
11Mbps CHANNEL 11 Processing Gain						
Gp = (S/N)。+ Mj + Lsys						
Freq.	**Gp**	**(S/N)。**	**Mj = J/S**	**Lsys**	**Jammer**	**LVL**
(GHz)	**(dB)**	**(dB)**	**(dB)**	**(dB)**	**(dBm)**	**(dBm)**
2.4629	12.2	16.4	-6.2	2	-46.2	-4.4
2.46295	12.2	16.4	-6.2	2	-46.2	-4.4
2.463	12.2	16.4	-6.2	2	-46.2	-4.4
2.46305	12.1	16.4	-6.3	2	-46.3	-4.5
2.4631	12	16.4	-6.4	2	-46.4	-4.6
2.46315	11.9	16.4	-6.5	2	-46.5	-4.7
2.4632	11.9	16.4	-6.5	2	-46.5	-4.7
2.46325	11.8	16.4	-6.6	2	-46.6	-4.8
2.4633	11.8	16.4	-6.6	2	-46.6	-4.8
2.46335	11.7	16.4	-6.7	2	-46.7	-4.9
2.4634	11.8	16.4	-6.6	2	-46.6	-4.8
2.46345	11.8	16.4	-6.6	2	-46.6	-4.8
2.4635	11.9	16.4	-6.5	2	-46.5	-4.7
2.46355	11.9	16.4	-6.5	2	-46.5	-4.7
2.4636	12	16.4	-6.4	2	-46.4	-4.6
2.46365	12	16.4	-6.4	2	-46.4	-4.6
2.4637	12.1	16.4	-6.3	2	-46.3	-4.5
2.46375	12.1	16.4	-6.3	2	-46.3	-4.5
2.4638	12	16.4	-6.4	2	-46.4	-4.6
2.46385	12	16.4	-6.4	2	-46.4	-4.6
2.4639	11.9	16.4	-6.5	2	-46.5	-4.7
2.46395	11.8	16.4	-6.6	2	-46.6	-4.8
2.464	11.8	16.4	-6.6	2	-46.6	-4.8
2.46405	11.8	16.4	-6.6	2	-46.6	-4.8
2.4641	11.8	16.4	-6.6	2	-46.6	-4.8
2.46415	11.8	16.4	-6.6	2	-46.6	-4.8
2.4642	11.9	16.4	-6.5	2	-46.5	-4.7
2.46425	12	16.4	-6.4	2	-46.4	-4.6
2.4643	12.1	16.4	-6.3	2	-46.3	-4.5
2.46435	12.2	16.4	-6.2	2	-46.2	-4.4
4.4644	12.2	16.4	-6.2	2	-46.2	-4.4
2.46445	12.2	16.4	-6.2	2	-46.2	-4.4
2.4645	12.2	16.4	-6.2	2	-46.2	-4.4
Processing Gain : 12 dB						


11Mbps Channel 11 Processing Gain
Gp
Processing Gain (dB)
22
20
18
16
14
12
10
2.452
2.454
2.456
2.458
2.46
2.462
2.464
2.466
2.468
2.47
2.472
Frequency (GHz)

2Mbps CHANNEL 6 Processing Gain						
Gp = (S/N)。+ Mj + Lsys						
Freq.	**Gp**	**(S/N)。**	**Mj = J/S**	**Lsys**	**Jammer**	**LVL**
(GHz)	**(dB)**	**(dB)**	**(dB)**	**(dB)**	**(dBm)**	**(dBm)**
2.4345	12.1	13.3	-3.2	2	-43.2	0.5
2.43455	12.7	13.3	-2.6	2	-42.6	1.1
2.4346	12.9	13.3	-2.4	2	-42.4	1.3
2.43465	13	13.3	-2.3	2	-42.3	1.4
2.4347	13	13.3	-2.3	2	-42.3	1.4
2.43475	12.9	13.3	-2.4	2	-42.4	1.3
2.4348	13.1	13.3	-2.2	2	-42.2	1.5
2.43485	12.4	13.3	-2.9	2	-42.9	0.8
2.4349	12.1	13.3	-3.2	2	-43.2	0.5
2.43495	12.6	13.3	-2.7	2	-42.7	1
2.435	12.6	13.3	-2.7	2	-42.7	1
2.43505	12.5	13.3	-2.8	2	-42.8	0.9
2.4351	12.4	13.3	-2.9	2	-42.9	0.8
2.43515	12.4	13.3	-2.9	2	-42.9	0.8
2.4352	12.2	13.3	-3.1	2	-43.1	0.6
2.43525	12.2	13.3	-3.1	2	-43.7	0.6
2.4353	12.3	13.3	-3	2	-43	0.7
2.43535	11.9	13.3	-3.4	2	-43.4	0.3
2.4354	11.5	13.3	-3.8	2	-43.8	-0.1
2.43545	12.1	13.3	-3.2	2	-43.2	0.5
2.4355	11.5	13.3	-3.8	2	-43.8	-0.1
2.43555	12.4	13.3	-2.9	2	-42.9	0.8
2.4356	12.7	13.3	-2.6	2	-42.6	1.1
2.43565	12.9	13.3	-2.4	2	-42.4	1.3
2.4357	12.8	13.3	-2.5	2	-42.5	1.2
5.43575	12.8	13.3	-2.5	2	-42.5	1.2
2.4358	12.9	13.3	-2.4	2	-42.4	1.3
2.43585	12.1	13.3	-3.2	2	-43.2	0.5
2.4359	11.7	13.3	-3.6	2	-43.6	0.1
2.43595	12.4	13.3	-2.9	2	-42.9	0.8
2.436	12.5	13.3	-2.8	2	-42.8	0.9
2.43605	12.5	13.3	-2.8	2	-42.8	0.9
2.4361	12.4	13.3	-2.9	2	-42.9	0.8
2.43615	12.4	13.3	-2.9	2	-42.9	0.8

2Mbps CHANNEL 6 Processing Gain						
Gp = (S/N)。+ Mj + Lsys						
Freq.	**Gp**	**(S/N)。**	**Mj = J/S**	**Lsys**	**Jammer**	**LVL**
(GHz)	**(dB)**	**(dB)**	**(dB)**	**(dB)**	**(dBm)**	**(dBm)**
2.4362	12.1	13.3	-3.2	2	-43.2	0.5
2.43625	12.1	13.3	-3.2	2	-43.2	0.5
2.4363	12.1	13.3	-3.2	2	-43.2	0.5
2.43635	11.5	13.3	-3.8	2	-43.8	-0.1
2.4364	11.1	13.3	-4.2	2	-44.2	-0.5
2.43645	11.7	13.3	-3.6	2	-43.6	0.1
2.4365	11.2	13.3	-4.1	2	-44.1	-0.4
2.43655	12.6	13.3	-2.7	2	-42.7	1
2.4366	13.1	13.3	-2.2	2	-42.2	1.5
2.43665	13.7	13.3	-1.6	2	-41.6	2.1
2.4367	14.1	13.3	-1.2	2	-41.2	2.5
2.43675	15.1	13.3	-0.2	2	-40.2	3.5
2.4368	15.7	13.3	0.4	2	-39.6	4.1
2.43685	16.2	13.3	0.9	2	-39.1	4.6
2.4369	16.1	13.3	0.8	2	-39.2	4.5
2.43695	16.3	13.3	1	2	-39	4.7
2.437	16.6	13.3	1.3	2	-38.7	5
2.43705	16.3	13.3	1	2	-39	4.7
2.4371	16.3	13.3	1	2	-39	4.7
2.43715	16	13.3	0.7	2	-39.3	4.4
2.4372	15.5	13.3	0.2	2	-39.8	3.9
2.43725	14.8	13.3	-0.5	2	-40.5	3.2
2.4373	14	13.3	-1.3	2	-41.3	2.4
2.43735	13.5	13.3	-1.8	2	-41.8	1.9
2.4374	12.7	13.3	-2.6	2	-42.6	1.1
2.43745	12.6	13.3	-2.7	2	-42.7	1
2.4375	11.6	13.3	-3.7	2	-43.7	0
2.43755	12.1	13.3	-3.2	2	-43.2	0.5
2.4376	12.1	13.3	-3.2	2	-43.2	0.5
2.43765	12.1	13.3	-3.2	2	-43.2	0.5
2.4377	12	13.3	-3.3	2	-43.3	0.4
2.43775	11.7	13.3	-3.6	2	-43.6	0.1
2.4378	12	13.3	-3.3	2	43.3	0.4
2.43785	11.1	13.3	-4.2	2	-44.2	-0.5

2Mbps CHANNEL 6 Processing Gain						
Gp = (S/N)。+ Mj + Lsys						
Freq.	**Gp**	**(S/N)。**	**Mj = J/S**	**Lsys**	**Jammer**	**LVL**
(GHz)	**(dB)**	**(dB)**	**(dB)**	**(dB)**	**(dBm)**	**(dBm)**
2.4379	11.2	13.3	-4.1	2	-44.1	-0.4
2.43795	12.1	13.3	-3.2	2	-43.2	0.5
2.438	12.5	13.3	-2.8	2	-42.8	0.9
2.43805	12.7	13.3	-2.6	2	-42.6	1.1
2.4381	12.8	13.3	-2.5	2	-42.5	1.2
2.43815	12.9	13.3	-2.4	2	-42.4	1.3
2.4382	12.9	13.3	-2.4	2	-42.4	1.3
2.43825	12.9	13.3	-2.4	2	-42.4	1.3
2.4383	12.8	13.3	-2.5	2	-42.5	1.2
2.43835	12.6	13.3	-2.7	2	-42.7	1
2.4384	12	13.3	-3.3	2	-43.3	0.4
2.43845	12.4	13.3	-2.9	2	-42.9	0.8
2.4385	11.7	13.3	-3.6	2	-43.6	0.1
2.43855	12.3	13.3	-3	2	-43	0.7
2.4386	12.3	13.3	-3	2	-43	0.7
2.43865	12.3	13.3	-3	2	-43	0.7
2.4387	12.2	13.3	-3.1	2	-43.1	0.6
2.43875	12	13.3	-3.3	2	-43.3	0.4
2.4388	12.3	13.3	-3	2	-43	0.7
2.43885	11.6	13.3	-3.7	2	-43.7	0
2.4389	11.6	13.3	-3.7	2	-43.7	0
2.43895	12.4	13.3	-2.9	2	-42.9	0.8
2.439	12.7	13.3	-2.6	2	-42.6	1.1
2.43905	12.7	13.3	-2.6	2	-42.6	1.1
2.4391	12.8	13.3	-2.5	2	-42.5	1.2
2.43915	12.9	13.3	-2.4	2	-42.4	1.3
2.4392	12.8	13.3	-2.5	2	-42.5	1.2
2.43925	12.9	13.3	-2.4	2	-42.4	1.3
2.4393	12.8	13.3	-2.5	2	-42.5	1.2
2.43935	12.6	13.3	-2.7	2	-42.7	1
2.4394	12.3	13.3	-3	2	-43	0.7
2.43945	12.5	13.3	-2.8	2	-42.8	0.9
2.4395	12	13.3	-3.3	2	-43.3	0.4
Processing Gain : 12.5 dB						


2Mbps Channel 6 Processing Gain
Gp
Processing Gain (dB)
22
20
18
16
14
12
10
2.426
2.428
2.43
2.432
2.434
2.436
2.438
2.44
2.442
2.444
2.446
2.448
Frequency (GHz)