

5. TEST TYPES AND RESULTS (FOR PART 802.11a)

5.1 CONDUCTED EMISSION MEASUREMENT

5.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

- NOTE:**
1. The lower limit shall apply at the transition frequencies.
 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
 3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

5.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
ROHDE & SCHWARZ Test Receiver	ESCS 30	838251/021	Jan. 20, 2004
ROHDE & SCHWARZ Artificial Mains Network (for EUT)	ESH3-Z5	100218	Dec. 18, 2003
ROHDE & SCHWARZ Artificial Mains Network (for peripherals)	ESH3-Z5	100219	Dec. 18, 2003
ROHDE & SCHWARZ Artificial Mains Network (for peripherals)	ESH3-Z5	100220	Dec. 18, 2003
ROHDE & SCHWARZ 4-wire ISN	ENY41	837032/016	Nov. 29 2003
ROHDE & SCHWARZ 2-wire ISN	ENY22	837497/016	Nov. 29 2003
Software	Cond-V2M3	NA	NA
RF cable (JYEBAO)	5D-FB	Cable-C10.01	May 01, 2004
SUHNER Terminator (For ROHDE & SCHWARZ LISN)	65BNC-5001	E1-010770	Mar. 24, 2004
SUHNER Terminator (For ROHDE & SCHWARZ LISN)	65BNC-5001	E1-010773	Apr. 06, 2004

- NOTE:**
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. “*”: These equipment are used for conducted telecom port test only (if tested).
 3. The test was performed in ADT Shielded Room No. 10.
 4. The VCCI Site Registration No. is C-1312.



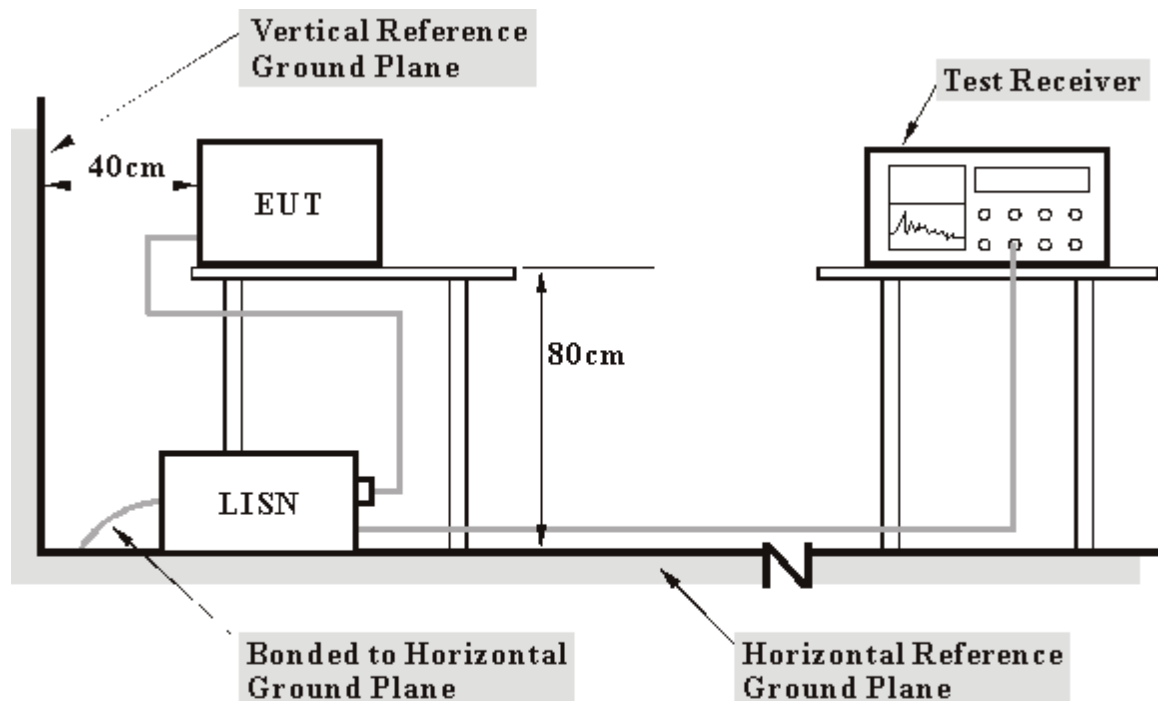
5.1.3 TEST PROCEDURES

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150kHz to 30MHz was searched. Emission levels over 10dB under the prescribed limits could not be reported

5.1.4 DEVIATION FROM TEST STANDARD

No deviation

5.1.5 TEST SETUP



- Note:** 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

5.1.6 EUT OPERATING CONDITIONS

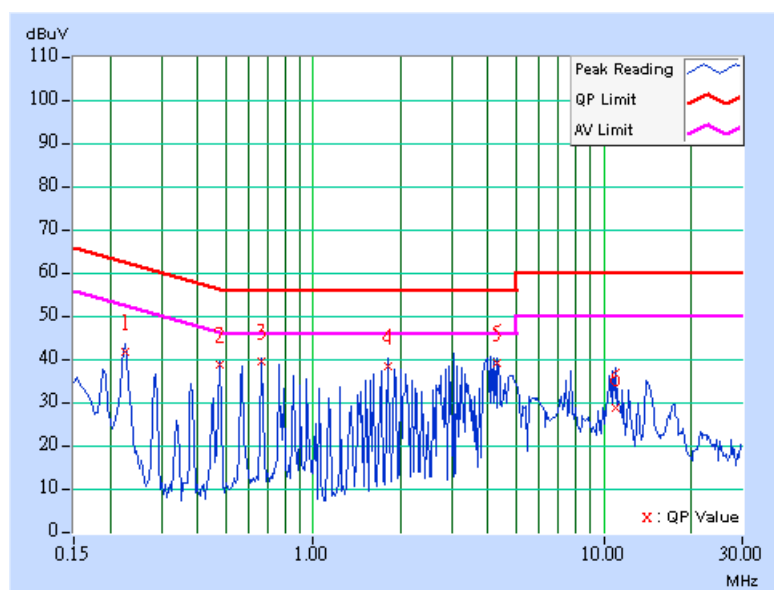
Same as 4.1.6

5.1.7 TEST RESULTS

EUT	11a/b/g Wireless PCI Adapter	MODEL	3CRDAG675
		6dB BANDWIDTH	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	25deg. C, 70%RH, 991hPa	TESTED BY: Martin Lee	

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.224	0.06	41.44	-	41.50	-	62.66	52.66	-21.16	-
2	0.474	0.07	38.34	-	38.41	-	56.44	46.44	-18.03	-
3	0.666	0.10	39.29	-	39.39	-	56.00	46.00	-16.61	-
4	1.809	0.18	38.11	-	38.29	-	56.00	46.00	-17.71	-
5	4.285	0.23	38.99	-	39.22	-	56.00	46.00	-16.78	-
6	11.000	0.44	28.47	-	28.91	-	60.00	50.00	-31.09	-

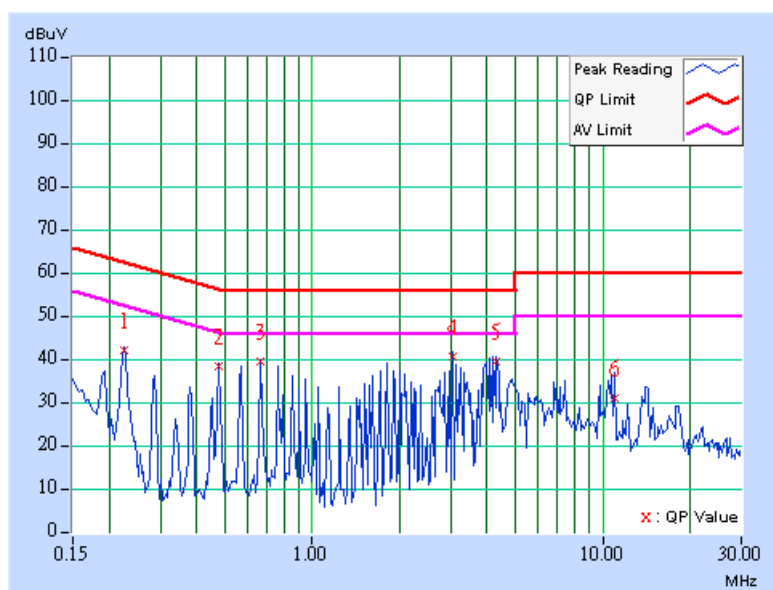
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Emission level - Limit value
 5. Correction factor = Insertion loss + Cable loss
 6. Emission Level = Correction Factor + Reading Value.



EUT	11a/b/g Wireless PCI Adapter	MODEL	3CRDAG675
		6dB BANDWIDTH	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Neutral (N)
ENVIRONMENTAL CONDITIONS	25deg. C, 70%RH, 991hPa	TESTED BY: Martin Lee	

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.224	0.05	41.93	-	41.98	-	62.66	52.66	-20.68	-
2	0.474	0.06	38.26	-	38.32	-	56.44	46.44	-18.12	-
3	0.666	0.10	39.08	-	39.18	-	56.00	46.00	-16.82	-
4	3.047	0.19	40.48	-	40.67	-	56.00	46.00	-15.33	-
5	4.285	0.22	39.12	-	39.34	-	56.00	46.00	-16.66	-
6	11.012	0.41	30.58	-	30.99	-	60.00	50.00	-29.01	-

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Emission level - Limit value
 5. Correction factor = Insertion loss + Cable loss
 6. Emission Level = Correction Factor + Reading Value.





5.2 RADIATED EMISSION MEASUREMENT

5.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequencies (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

5.2.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

Frequencies (MHz)	EIRP Limit (dBm)	Equivalent Field Strength at 3m (dBuV/m) *note 3
5150~5250	-27	68.3
5250~5350	-27	68.3
5725~5825	-27 *note 1	68.3
	-17 *note 2	78.3

NOTE:

1. For frequencies 10MHz or greater above or below the band edge.
2. All emissions within the frequency range from the band edge to 10MHz above or below the band edge.
3. The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength

$$E = \frac{1000000\sqrt{30P}}{3} \quad \mu\text{V/m, where P is the eirp (Watts)}$$



5.2.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
* HP Spectrum Analyzer	8590L	3544A01176	Jun. 10, 2004
* HP Preamplifier	8447D	2944A08485	May 01, 2004
* HP Preamplifier	8449B	3008A01201	Dec. 01, 2003
* HP Preamplifier	8449B	3008A01292	Aug. 13, 2004
ROHDE & SCHWARZ TEST RECEIVER	ESI7	838496/016	Feb. 23, 2004
* ROHDE & SCHWARZ TEST RECEIVER	ESMI	839013/007 839379/002	Feb. 13, 2004
SCHAFFNER Tunable Dipole Antenna	VHBA 9123	459	Nov. 22, 2003
SCHWARZBECK Tunable Dipole Antenna	UHA 9105	977	
* CHASE BILOG Antenna	CBL6112A	2221	July 26, 2004
* SCHWARZBECK Horn Antenna	BBHA9120-D1	D130	Jun. 30, 2004
* EMCO Horn Antenna	3115	9312-4192	Mar. 23, 2004
* EMCO Turn Table	1060	1115	NA
* CHANCE Tower	CM-AT40	CM-A010	NA
* Software	ADT_Radiated_V5.14	NA	NA
* ANRITSU RF Switches	MP59B	M35046	Jan. 05, 2004
* TIMES RF cable	LMR-600	CABLE-ST5-01	Jan. 05, 2004

NOTE: 1. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to NML/ROC and NIST/USA.

2. "*" = These equipment are used for the final measurement.
3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
4. The test was performed in ADT Open Site No. 5.
5. The VCCI Site Registration No. is R-1039.



5.2.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

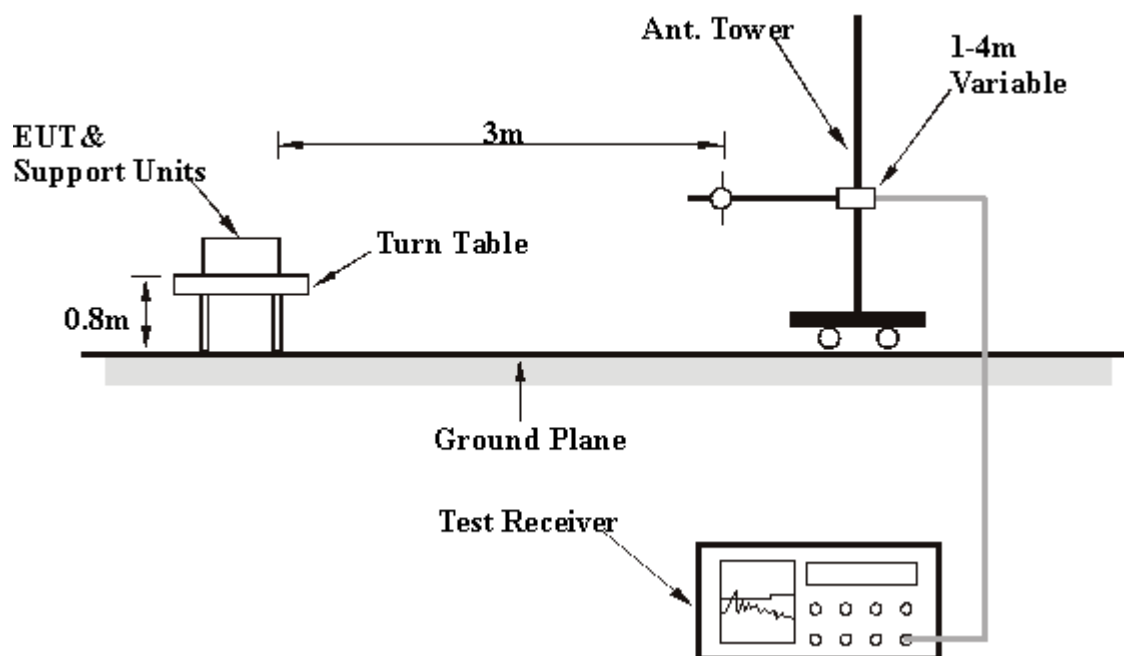
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 300 Hz for Average detection (AV) at frequency above 1GHz.

5.2.5 DEVIATION FROM TEST STANDARD

No deviation

5.2.6 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

5.2.7 EUT OPERATING CONDITIONS

Same as 4.1.6

5.2.8 TEST RESULTS

EUT	11a/b/g Wireless PCI Adapter	MODEL	3CRDAG675
FREQUENCY RANGE	Below 1000MHz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 991hPa	INPUT POWER (SYSTEM)	120Vac, 60Hz
TESTED BY	Martin Lee		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	200.05	27.10 QP	43.50	-16.40	1.58 H	85	16.30	10.80
2	249.95	26.00 QP	46.00	-20.00	1.36 H	122	12.40	13.60
3	300.00	27.00 QP	46.00	-19.00	1.00 H	317	11.40	15.70
4	500.28	43.30 QP	46.00	-2.70	1.60 H	320	23.20	20.10
5	532.63	35.10 QP	46.00	-10.90	1.00 H	209	14.50	20.60
6	624.10	31.00 QP	46.00	-15.00	1.75 H	1	8.60	22.40
7	666.00	31.30 QP	46.00	-14.70	1.00 H	0	8.80	22.50
8	934.00	32.70 QP	46.00	-13.30	1.36 H	1	8.00	24.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	68.40	31.70 QP	40.00	-8.30	1.00 V	293	24.70	7.00
2	175.33	32.10 QP	43.50	-11.40	1.00 V	303	21.60	10.50
3	216.13	25.90 QP	46.00	-20.10	1.56 V	253	14.20	11.70
4	225.20	29.70 QP	46.00	-16.30	1.56 V	304	17.50	12.20
5	249.95	27.60 QP	46.00	-18.40	1.40 V	99	14.00	13.60
6	400.00	28.80 QP	46.00	-17.20	1.38 V	299	10.50	18.20
7	500.08	39.40 QP	46.00	-6.60	1.20 V	244	19.20	20.10
8	528.10	38.10 QP	46.00	-7.90	1.98 V	167	17.60	20.50
9	532.63	35.80 QP	46.00	-10.20	1.79 V	309	15.20	20.60

NOTE:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.

EUT	11a/b/g Wireless PCI Adapter	MODEL	3CRDAG675
MODE	Normal Mode	CHANNEL	1
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 991hPa	INPUT POWER (SYSTEM)	120Vac, 60Hz
TESTED BY	Martin Lee		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	#5150.00	46.40 PK	74.00	27.60	1.62 H	77	10.20	36.20
2	*5180.00	95.80 PK			1.62 H	77	59.50	36.20
2	*5180.00	87.20 AV			1.62 H	77	50.90	36.20
3	10360.00	57.50 PK	68.30	-10.80	1.06 H	335	13.00	44.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	#5150.00	52.90 PK	74.00	-21.10	1.35 V	309	16.70	36.20
1	#5150.00	43.50 AV	54.00	-10.50	1.35 V	309	7.30	36.20
2	*5180.00	102.30 PK			1.35 V	309	66.00	36.20
2	*5180.00	92.90 AV			1.35 V	309	56.70	36.20
3	10360.00	57.20 PK	68.30	-11.10	1.31 V	17	12.70	44.50

NOTE:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.
5. "*" : Fundamental frequency
6. "#"The radiated frequency falling in the restricted band.



EUT	11a/b/g Wireless PCI Adapter	MODEL	3CRDAG675
MODE	Normal Mode	CHANNEL	4
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 991hPa	INPUT POWER (SYSTEM)	120Vac, 60Hz
TESTED BY	Martin Lee		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	*5240.00	94.30 PK			1.49 H	34	57.90	36.30
1	*5240.00	84.50 AV			1.49 H	34	48.20	36.30
2	10480.00	58.70 PK	68.30	-9.60	1.17 H	251	14.00	44.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	*5240.00	98.80 PK			1.03 V	59	62.40	36.30
1	*5240.00	89.80 AV			1.03 V	59	53.40	36.30
2	10480.00	58.60 PK	68.30	-9.70	1.22 V	184	13.90	44.70

NOTE:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.
5. “*” : Fundamental frequency



EUT	11a/b/g Wireless PCI Adapter	MODEL	3CRDAG675
MODE	Normal Mode	CHANNEL	5
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 991hPa	INPUT POWER (SYSTEM)	120Vac, 60Hz
TESTED BY	Martin Lee		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	*5260.00	101.60 PK			1.41 H	113	65.30	36.40
1	*5260.00	92.30 AV			1.41 H	113	56.00	36.40
2	10520.00	61.40 PK	68.30	-6.90	1.52 H	32	16.60	44.80

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	*5260.00	104.20 PK			1.00 V	15	67.80	36.40
1	*5260.00	95.20 AV			1.00 V	15	58.80	36.40
2	10520.00	62.80 PK	68.30	-5.50	1.48 V	51	18.00	44.80

NOTE:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.
5. “*” : Fundamental frequency



EUT	11a/b/g Wireless PCI Adapter	MODEL	3CRDAG675
MODE	Normal Mode	CHANNEL	8
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 991hPa	INPUT POWER (SYSTEM)	120Vac, 60Hz
TESTED BY	Martin Lee		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	#5350.00	49.60 PK	74.00	-24.40	1.77 H	100	13.10	36.50
2	*5320.00	92.30 PK			1.77 H	100	55.90	36.40
2	*5320.00	82.20 AV			1.77 H	100	45.80	36.40
3	#10640.00	46.70 PK	74.00	-27.30	1.26 H	24	1.60	45.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	*5320.00	96.70 PK			1.63 V	93	60.30	36.40
1	*5320.00	87.70 AV			1.63 V	93	51.30	36.40
2	#5350.00	43.50 PK	68.30	-24.80	1.63 V	93	7.00	36.50
3	#10640.00	54.00 PK	74.00	-20.00	1.12 V	34	8.90	45.10
3	#10640.00	45.00 AV	54.00	-9.00	1.12 V	34	-0.10	45.10

NOTE:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.
5. "*" : Fundamental frequency
6. "#": The radiated frequency falling in the restricted band.

EUT	11a/b/g Wireless PCI Adapter	MODEL	3CRDAG675
MODE	Normal Mode	CHANNEL	9
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 991hPa	INPUT POWER (SYSTEM)	120Vac, 60Hz
TESTED BY	Martin Lee		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	5715.00	58.90 PK	68.30	-9.40	1.13 H	6	21.80	37.10
2	5725.00	69.20 PK	78.30	-9.10	1.13 H	6	32.10	37.10
3	*5745.00	93.70 PK			1.13 H	6	56.50	37.10
3	*5745.00	83.10 AV			1.13 H	6	46.00	37.10
4	#11490.00	57.70 PK	74.00	-16.30	1.07 H	336	12.00	45.80
4	#11490.00	44.80 AV	54.00	-9.20	1.07 H	336	-0.90	45.80

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	5715.00	65.10 PK	68.30	-3.20	1.26 V	194	28.00	37.10
2	5725.00	74.30 PK	78.30	-4.00	1.26 V	194	37.20	37.10
3	*5745.00	100.80 PK			1.26 V	194	63.60	37.10
3	*5745.00	91.80 AV			1.26 V	194	54.70	37.10
4	#11490.00	57.00 PK	74.00	-17.00	1.50 V	237	11.20	45.80
4	#11490.00	46.30 AV	54.00	-7.70	1.50 V	237	0.60	45.80

NOTE:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.
5. "*" : Fundamental frequency
6. "#"The radiated frequency falling in the restricted band.

EUT	11a/b/g Wireless PCI Adapter	MODEL	3CRDAG675
MODE	Normal Mode	CHANNEL	12
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 991hPa	INPUT POWER (SYSTEM)	120Vac, 60Hz
TESTED BY	Martin Lee		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	*5805.00	94.80 PK			1.14 H	4	57.50	37.20
1	*5805.00	85.50 AV			1.14 H	4	48.30	37.20
2	5825.00	70.20 PK	78.30	-8.10	1.14 H	4	32.90	37.30
3	5835.00	57.60 PK	68.30	-10.70	1.14 H	4	20.30	37.30
4	#11609.00	56.50 PK	74.00	-17.50	1.52 H	115	10.80	45.60
4	#11609.00	43.80 AV	54.00	-10.20	1.52 H	115	-1.80	45.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	*5805.00	102.50 PK			1.00 V	0	65.30	37.20
1	*5805.00	93.30 AV			1.00 V	0	56.00	37.20
2	5825.00	74.40 PK	78.30	-3.90	1.00 V	0	37.10	37.30
3	5835.00	61.30 PK	68.30	-7.00	1.00 V	0	24.00	37.30
4	#11613.00	56.00 PK	74.00	-18.00	1.12 V	53	10.40	45.60
4	#11613.00	43.30 AV	54.00	-10.70	1.12 V	53	-2.30	45.60

NOTE:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.
5. "*" : Fundamental frequency
6. "#"The radiated frequency falling in the restricted band.



EUT	11a/b/g Wireless PCI Adapter	MODEL	3CRDAG675
MODE	Turbo Mode	CHANNEL	1
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 991hPa	INPUT POWER (SYSTEM)	120Vac, 60Hz
TESTED BY	Martin Lee		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	#5150.00	36.50 PK	74.00	-37.50	1.30 H	41	0.30	36.20
2	*5210.00	86.90 PK			1.30 H	41	50.60	36.30
2	*5210.00	76.70 AV			1.30 H	41	40.40	36.30
3	10420.00	54.40 PK	68.30	-13.90	1.64 H	49	9.80	44.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	#5150.00	46.10 PK	74.00	-27.90	1.32 V	140	9.90	36.20
2	*5210.00	97.00 PK			1.32 V	140	60.70	36.30
2	*5210.00	87.50 AV			1.32 V	140	51.20	36.30
3	10420.00	54.70 PK	68.30	-13.60	1.24 V	53	10.10	44.60

NOTE:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.
5. "*" : Fundamental frequency
6. "#" The radiated frequency falling in the restricted band.



EUT	11a/b/g Wireless PCI Adapter	MODEL	3CRDAG675
MODE	Turbo Mode	CHANNEL	2
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 991hPa	INPUT POWER (SYSTEM)	120Vac, 60Hz
TESTED BY	Martin Lee		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	*5250.00	88.10 PK			1.44 H	328	51.70	36.30
1	*5250.00	79.80 AV			1.44 H	328	43.40	36.30
2	10500.00	57.20 PK	68.30	-11.10	1.03 H	34	12.50	44.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	#5150.00	40.20 PK	74.00	-33.80	1.33 V	328	4.00	36.20
2	*5250.00	96.50 PK			1.33 V	328	60.20	36.30
2	*5250.00	88.30 AV			1.33 V	328	52.00	36.30
3	5290.00	40.10 PK	68.30	-28.20	1.33 V	328	3.70	36.40
4	10500.00	55.90 PK	68.30	-12.40	1.52 V	241	11.20	44.70

NOTE:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.
5. "*" : Fundamental frequency
6. "#"The radiated frequency falling in the restricted band.

EUT	11a/b/g Wireless PCI Adapter	MODEL	3CRDAG675
MODE	Turbo Mode	CHANNEL	3
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 991hPa	INPUT POWER (SYSTEM)	120Vac, 60Hz
TESTED BY	Martin Lee		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	*5290.00	87.00 PK			1.74 H	107	50.60	36.40
1	*5290.00	79.60 AV			1.74 H	107	43.20	36.40
2	10580.00	54.90 PK	68.30	-13.40	1.14 H	274	9.90	44.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	*5290.00	93.70 PK			1.26 V	227	57.20	36.40
1	*5290.00	84.30 AV			1.26 V	227	47.90	36.40
2	#5350.00	39.50 PK	74.00	-34.50	1.26 V	227	3.00	36.50
3	10580.00	54.70 PK	68.30	-13.60	1.10 V	214	9.80	44.90

NOTE:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.
5. "*" : Fundamental frequency
6. "#"The radiated frequency falling in the restricted band.

EUT	11a/b/g Wireless PCI Adapter	MODEL	3CRDAG675
MODE	Turbo Mode	CHANNEL	4
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 991hPa	INPUT POWER (SYSTEM)	120Vac, 60Hz
TESTED BY	Martin Lee		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	5715.00	59.10 PK	68.30	-9.20	1.00 H	294	22.00	37.10
2	5725.00	66.10 PK	78.30	-12.20	1.00 H	294	29.00	37.10
3	*5760.00	87.60 PK			1.00 H	294	50.40	37.20
3	*5760.00	74.70 AV			1.00 H	294	37.60	37.20
4	#11520.00	56.80 PK	74.00	-17.20	1.29 H	34	11.00	45.70
4	#11520.00	45.30 AV	54.00	-8.70	1.29 H	34	-0.40	45.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	5715.00	63.10 PK	68.30	-5.20	1.54 V	107	26.00	37.10
2	5725.00	70.50 PK	78.30	-7.80	1.54 V	107	33.40	37.10
3	*5760.00	94.80 PK			1.54 V	107	57.60	37.20
3	*5760.00	86.30 AV			1.54 V	107	49.10	37.20
4	#11520.00	56.30 PK	74.00	-17.70	1.21 V	29	10.60	45.70
4	#11520.00	44.70 AV	54.00	-9.30	1.21 V	29	-1.00	45.70

NOTE:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.
5. "*" : Fundamental frequency
6. "#" The radiated frequency falling in the restricted band.

EUT	11a/b/g Wireless PCI Adapter	MODEL	3CRDAG675
MODE	Turbo Mode	CHANNEL	5
FREQUENCY RANGE	Above 1000 MHz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 991hPa	INPUT POWER (SYSTEM)	120Vac, 60Hz
TESTED BY	Martin Lee		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	*5800.00	88.50 PK			1.03 H	293	51.20	37.20
1	*5800.00	77.60 AV			1.03 H	293	40.40	37.20
2	5825.00	67.30 PK	78.30	-11.00	1.03 H	293	30.00	37.30
3	5835.00	61.30 PK	68.30	-7.00	1.03 H	293	24.00	37.30
4	#11600.00	56.30 PK	74.00	-17.70	1.12 H	24	10.60	45.70
4	#11600.00	45.50 AV	54.00	-8.50	1.12 H	24	-0.20	45.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB)
1	*5800.00	95.70 PK			1.09 V	312	58.50	37.20
1	*5800.00	87.00 AV			1.09 V	312	49.80	37.20
2	5825.00	72.10 PK	78.30	-6.20	1.09 V	312	34.80	37.30
3	5835.00	65.80 PK	68.30	-2.50	1.09 V	312	28.50	37.30
4	#11600.00	55.60 PK	74.00	-18.40	1.28 V	34	9.90	45.70
4	#11600.00	44.90 AV	54.00	-9.10	1.28 V	34	-0.80	45.70

NOTE:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.
5. "*" : Fundamental frequency
6. "#": The radiated frequency falling in the restricted band.

5.3 PEAK TRANSMIT POWER MEASUREMENT

5.3.1 LIMITS OF PEAK TRANSMIT POWER MEASUREMENT

Frequency Band	Limit
5.15 – 5.25GHz	The lesser of 50mW (17dBm) or 4dBm + 10logB
5.25 – 5.35GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.725 – 5.825GHz	The lesser of 1W (30dBm) or 17dBm + 10logB

NOTE: Where B is the 26dB emission bandwidth in MHz.

5.3.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSEK30	100049	Aug. 12, 2004
SPECTRUM ANALYZER	8564EC	4208A00660	Nov. 20, 2003

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

5.3.3 TEST PROCEDURE

1. The transmitter output was connected to the spectrum analyzer.
2. Set span to encompass the entire emission bandwidth of the signal.
3. Set RBW to 1MHz, VBW to 300kHz.
4. Using the spectrum analyzer's channel power measurement function to measure the output power.

5.3.4 DEVIATION FROM TEST STANDARD

No deviation

5.3.5 TEST SETUP



5.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

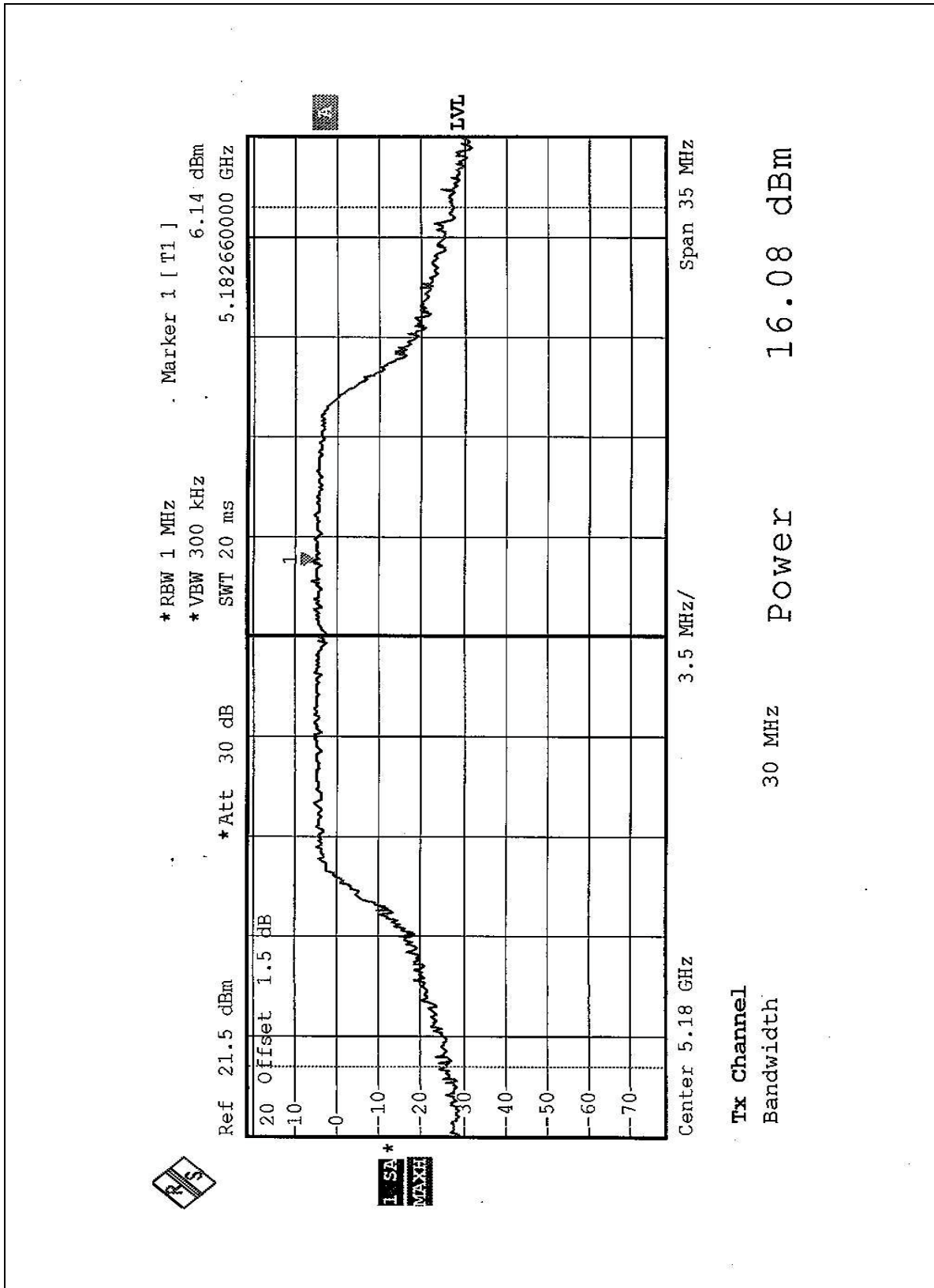
5.3.7 TEST RESULTS

EUT	11a/b/g Wireless PCI Adapter	MODEL	3CRDAG675
MODE	Normal	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	26deg. C, 62%RH, 991hPa	TESTED BY	Ansen Lei

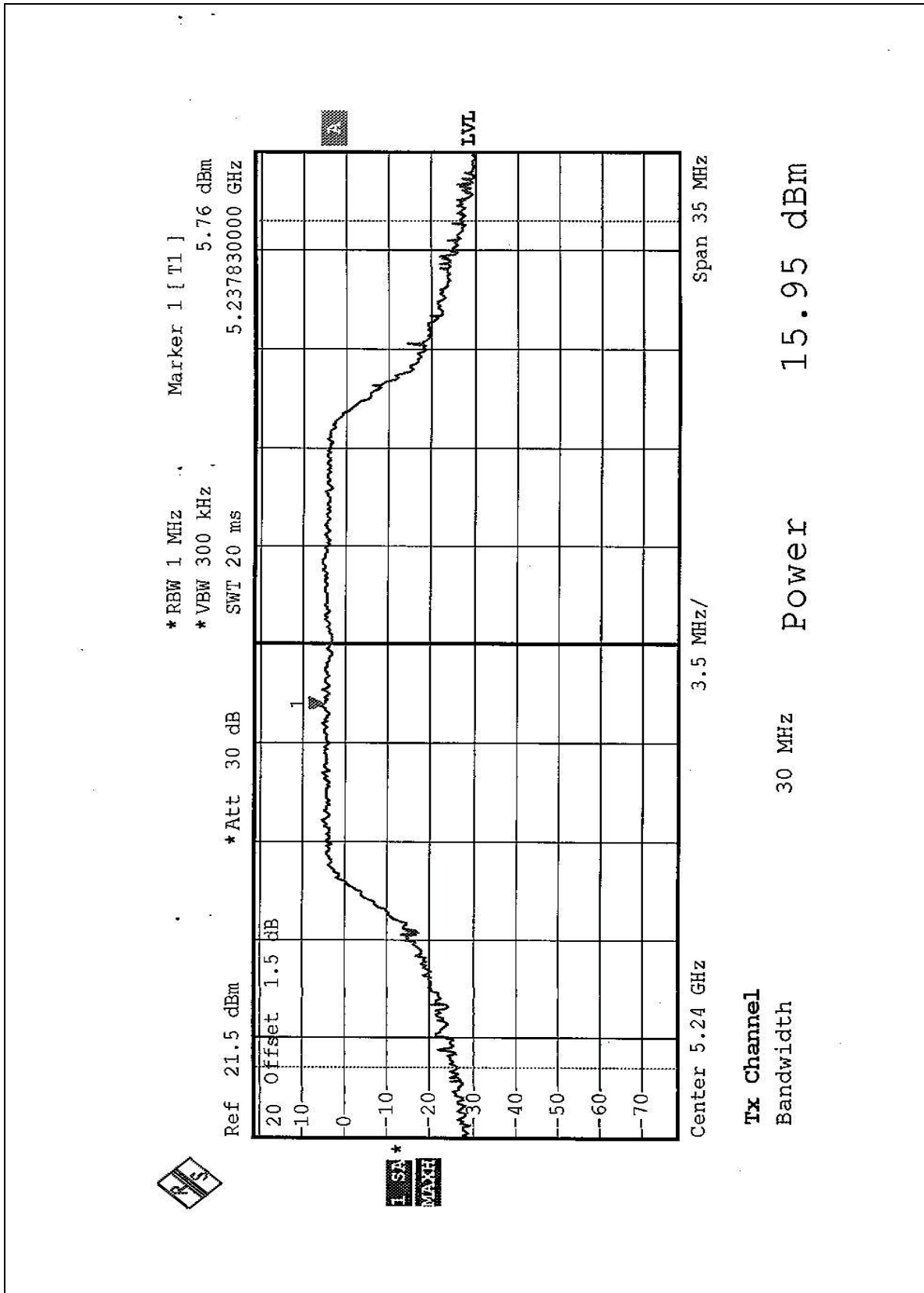
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	26dBc Occupied Bandwidth (MHz)	PASS/FAIL
1	5180	16.08	17.00	25.97	PASS
4	5240	15.95	17.00	26.74	PASS
5	5260	17.08	24.00	28.00	PASS
8	5320	16.58	24.00	27.58	PASS
9	5745	17.32	30.00	29.12	PASS
12	5805	17.21	30.00	27.16	PASS

NOTE: The 26dBc Occupied Bandwidth plot, please refer to the following pages.

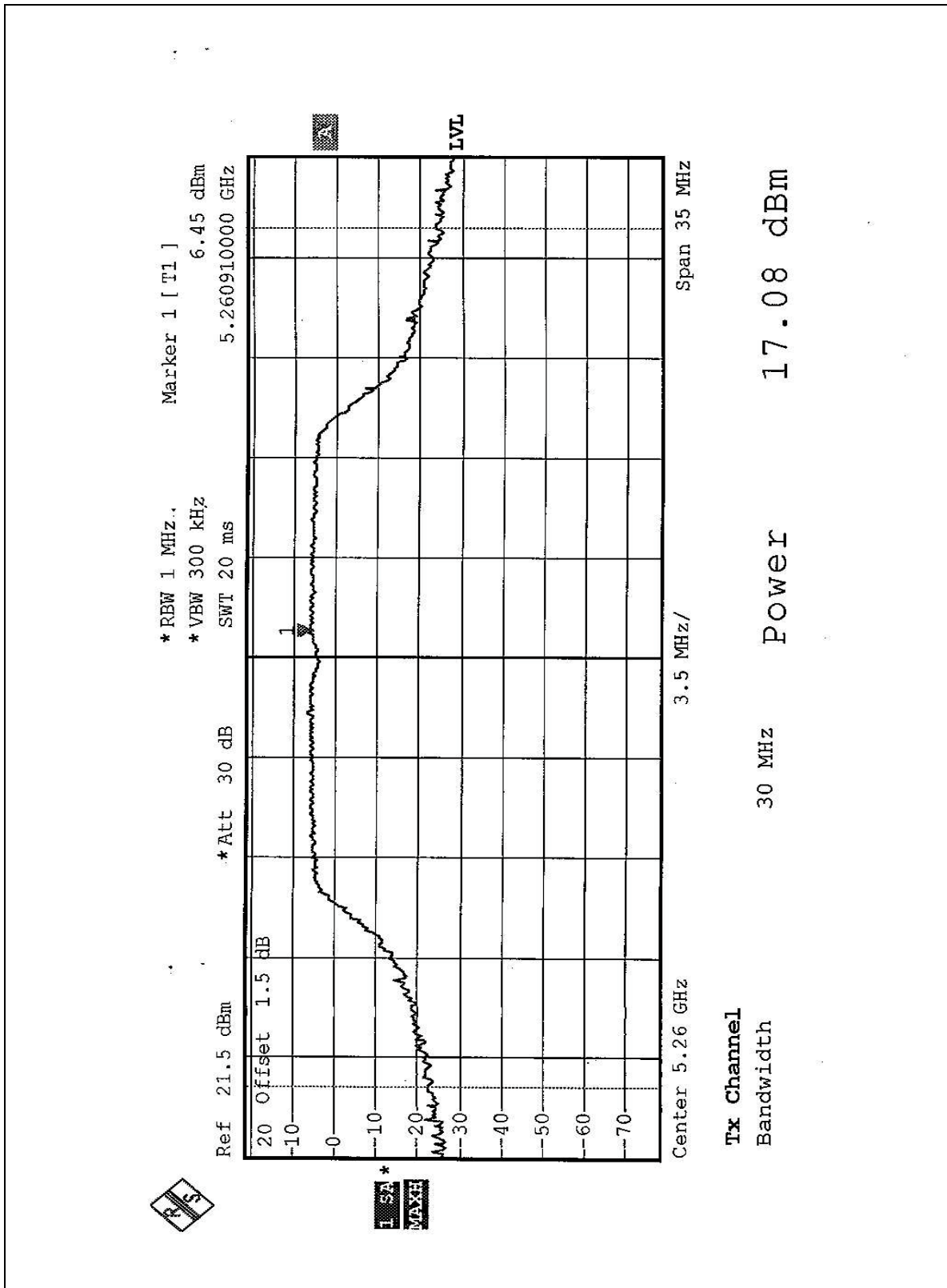
CHANNEL 1



CHANNEL 4



CHANNEL 5

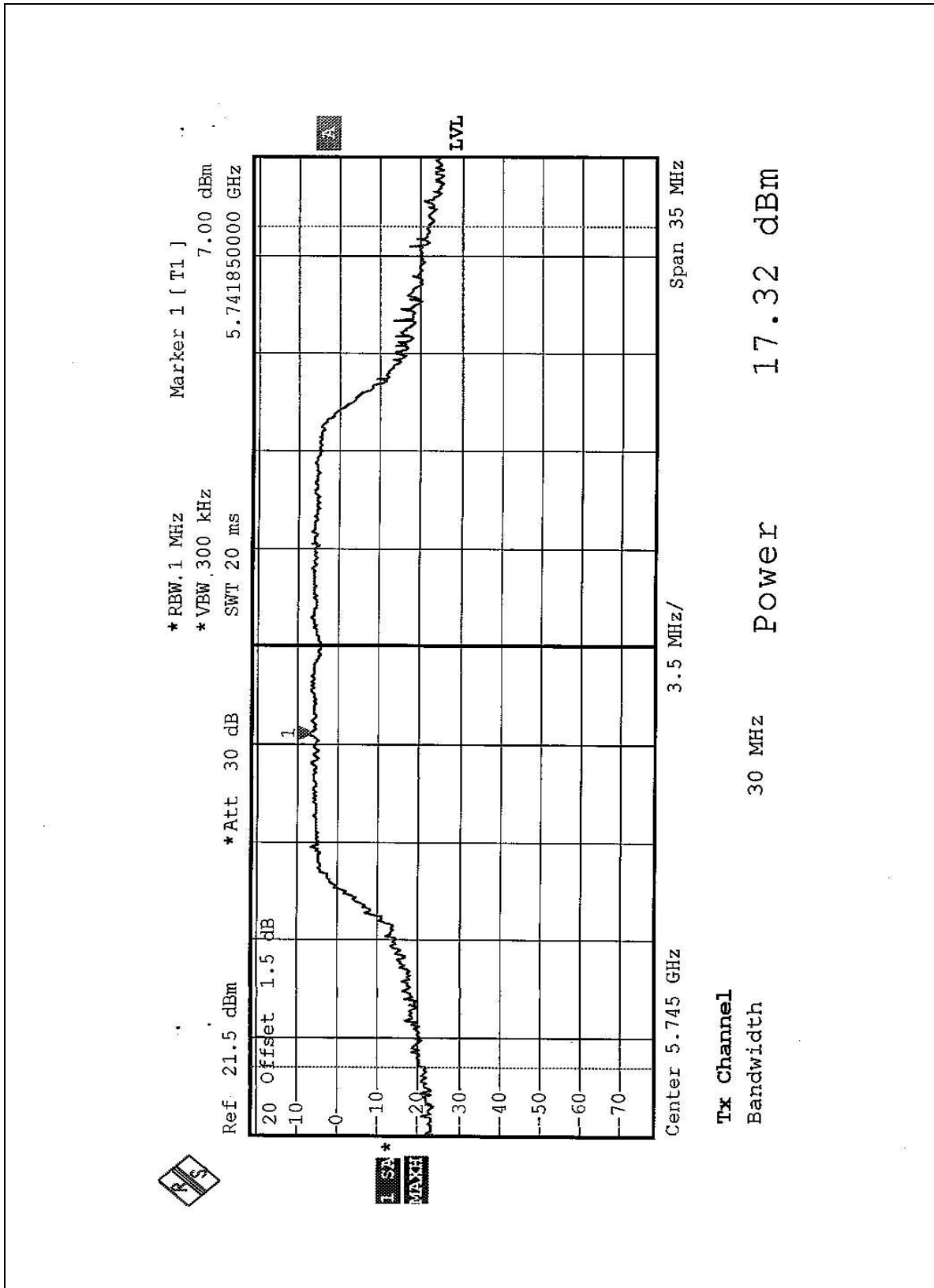


The figure is a spectrum analyzer plot showing a signal at 5.32 GHz. The y-axis represents power in dBm, ranging from -70 to 20. The x-axis represents frequency in MHz, with a center frequency of 5.32 GHz and a span of 35 MHz. The signal trace shows a peak at 5.32 GHz with a power of 16.58 dBm. The plot includes a grid and various measurement parameters.

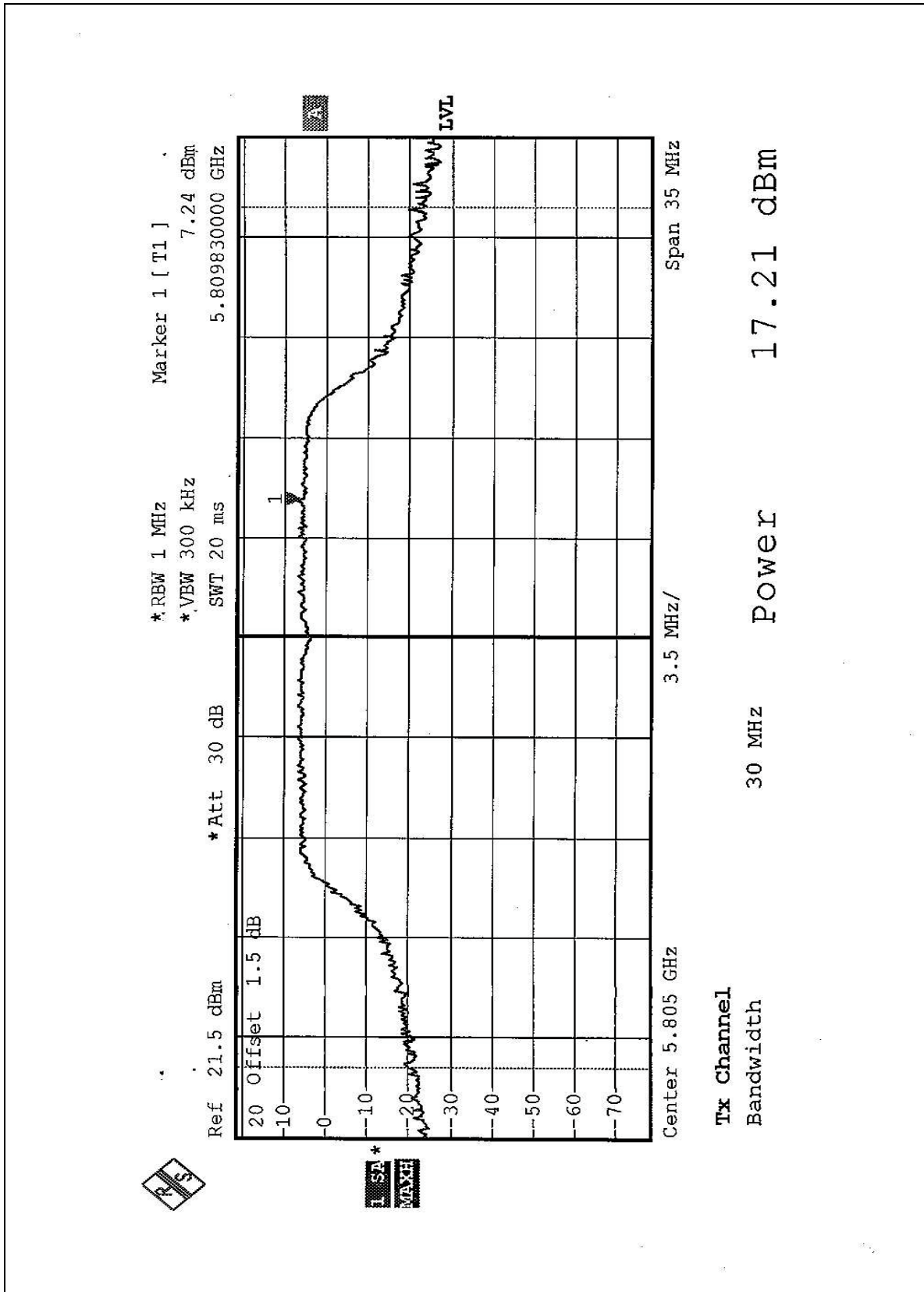
Parameters displayed on the plot:

- Ref 21.5 dBm
- Offset 1.5 dB
- *Att 30 dB
- *RBW 1 MHz
- *VBW 300 kHz
- SWT 20 ms
- Marker 1 [T1]
- 6.05 dBm
- 5.32308000 GHz
- Center 5.32 GHz
- 3.5 MHz/
- Span 35 MHz
- Tx Channel
- Bandwidth
- Power
- 16.58 dBm

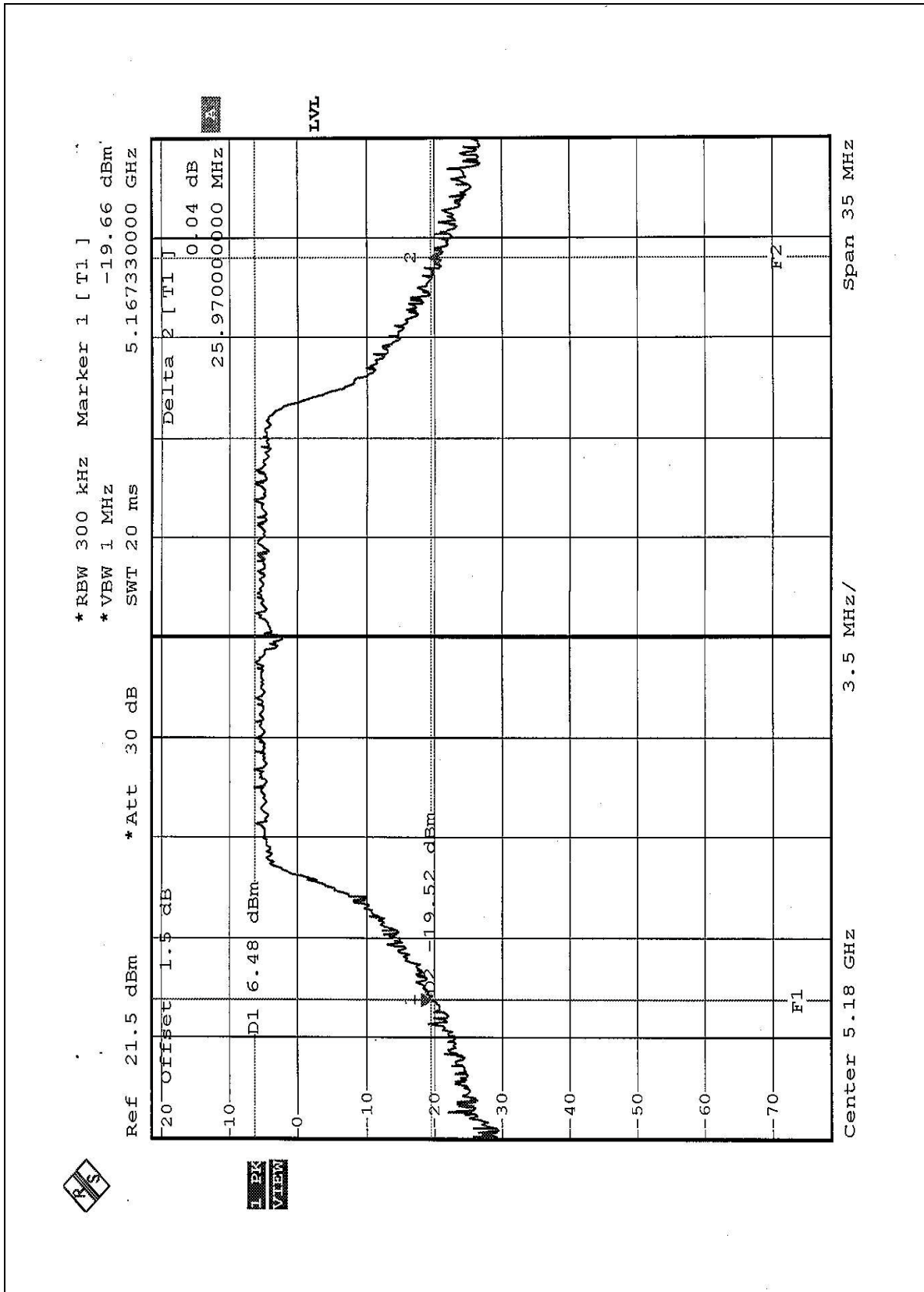
CHANNEL 9



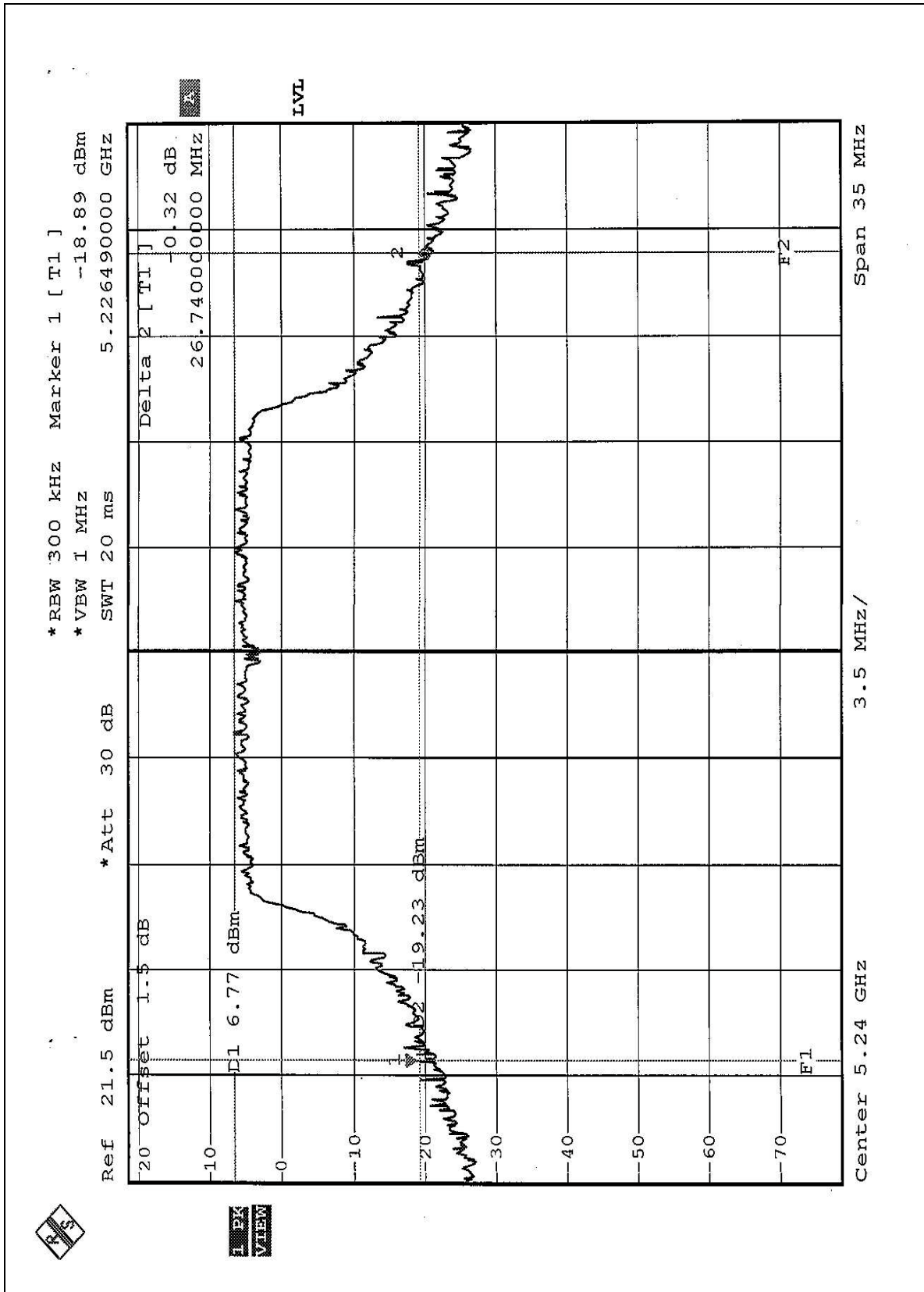
CHANNEL 12



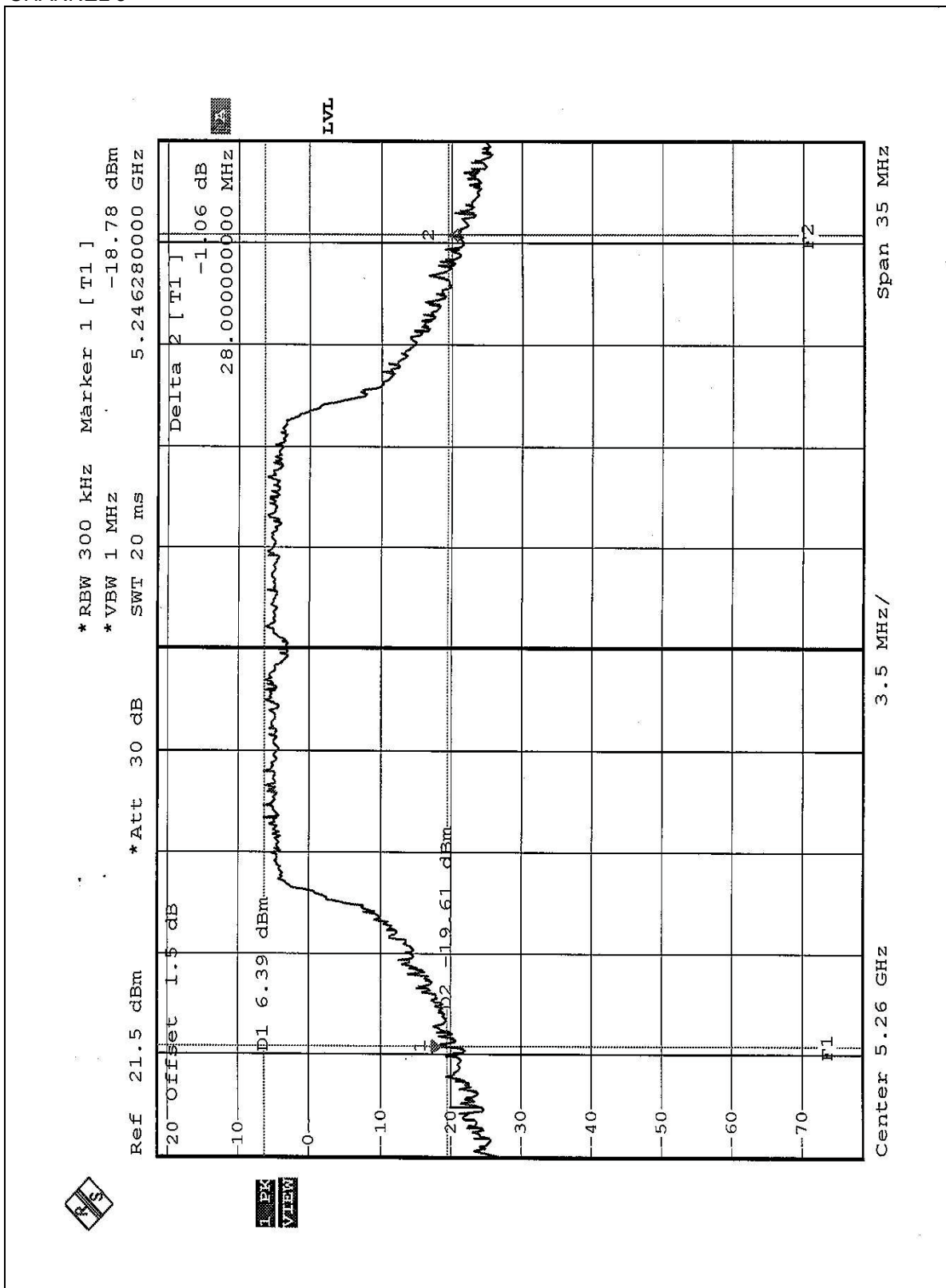
CHANNEL 1



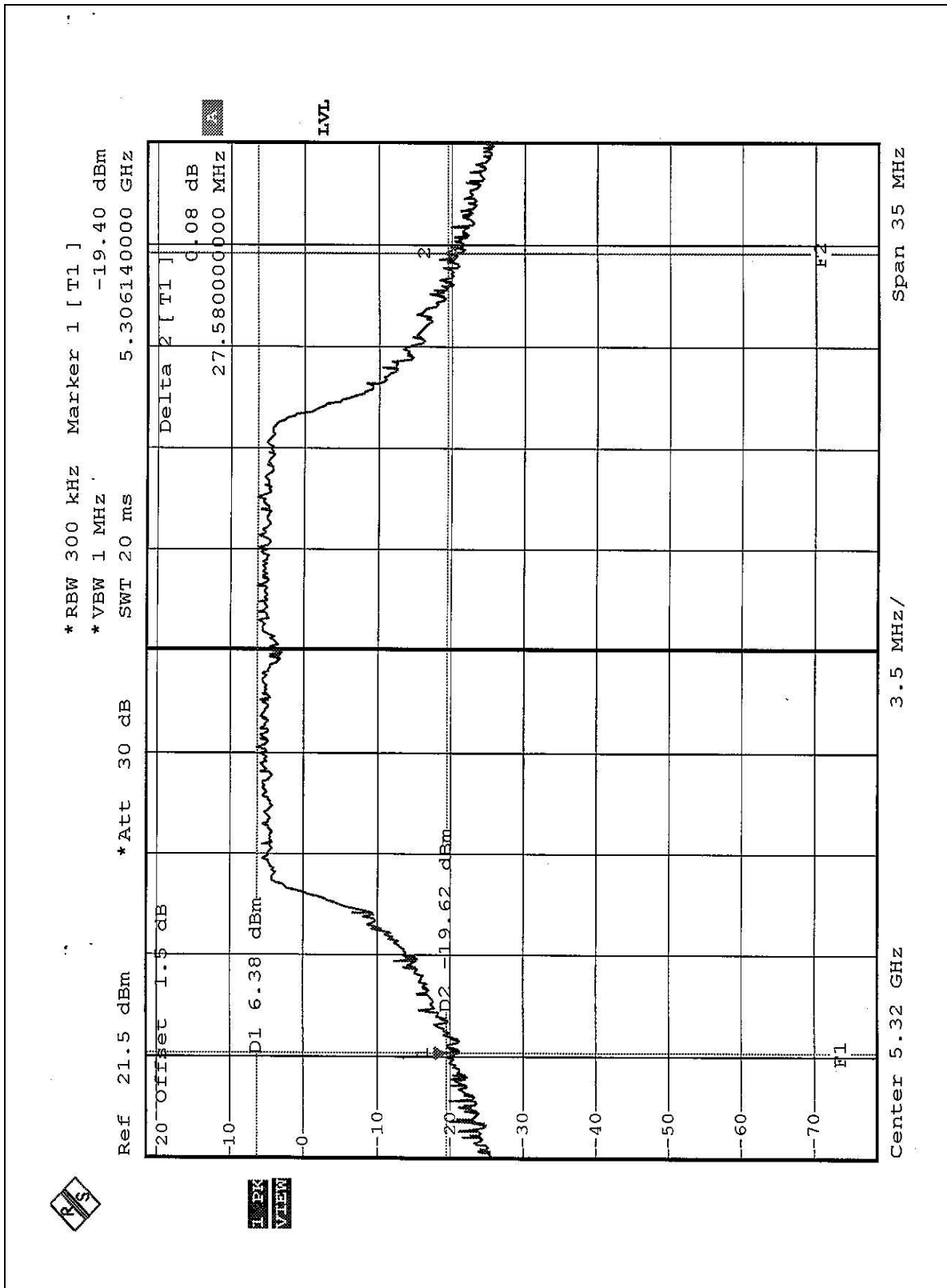
CHANNEL 4



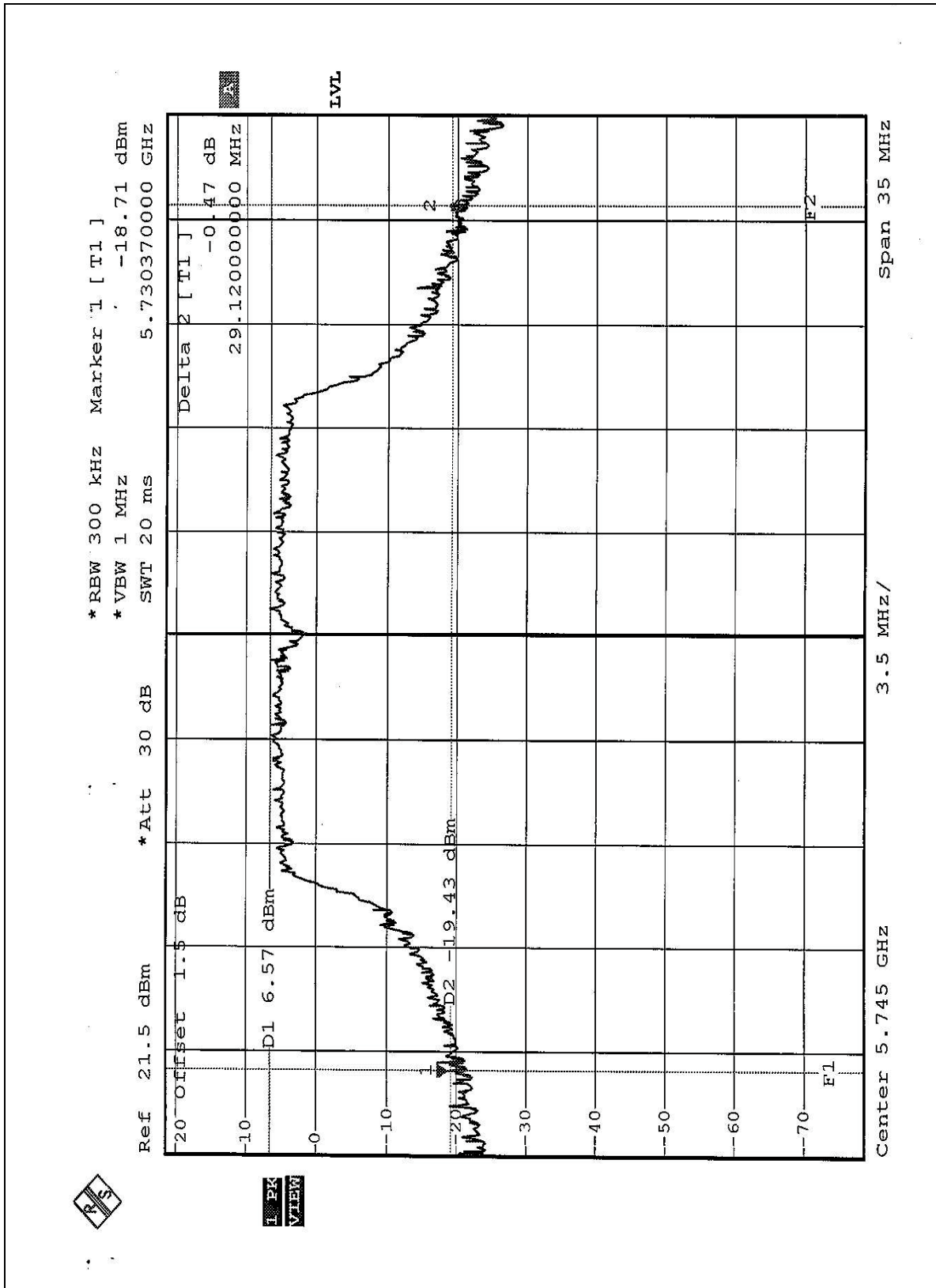
CHANNEL 5



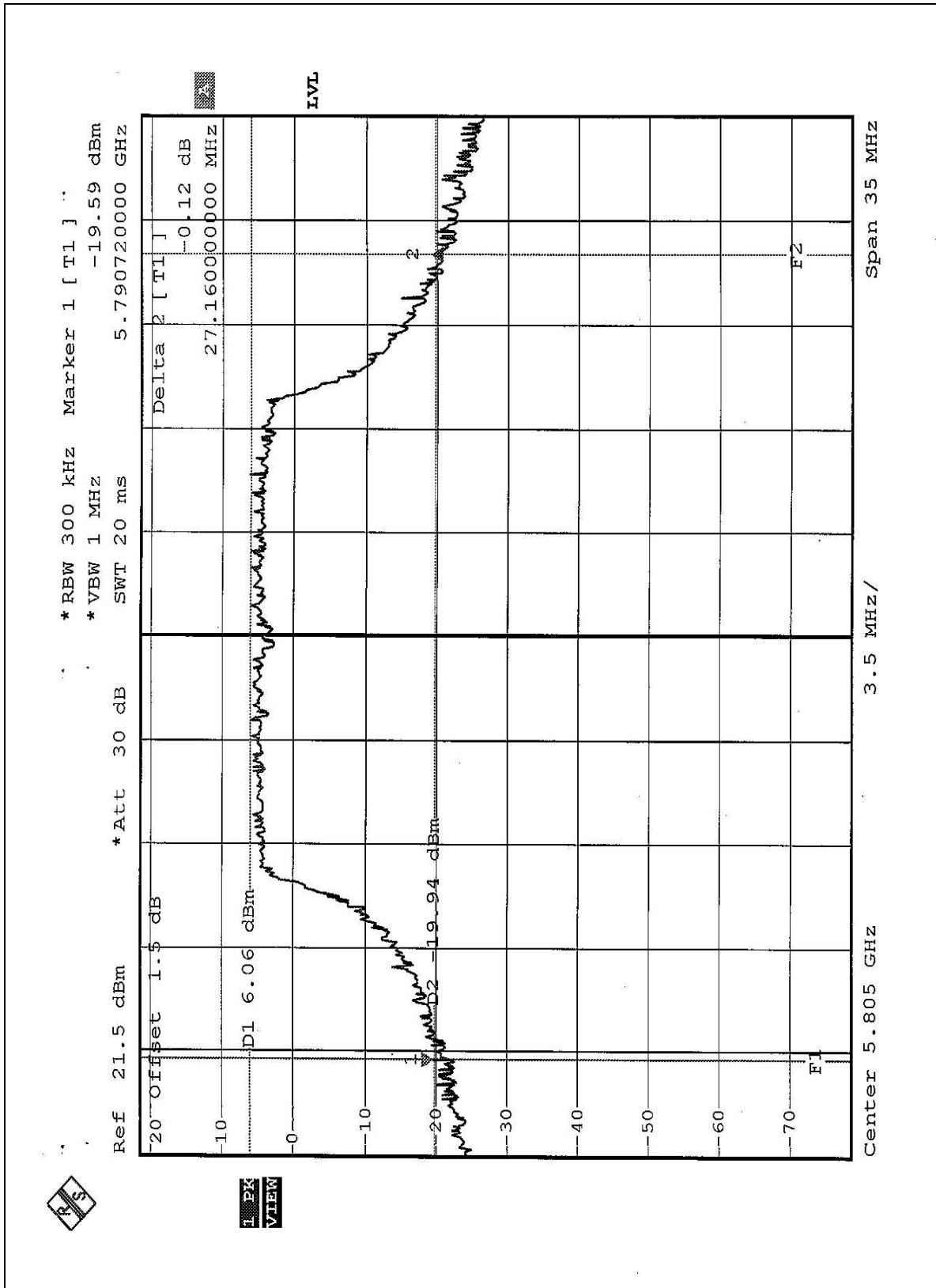
CHANNEL 8



CHANNEL 9



CHANNEL 12





EUT	11a/b/g Wireless PCI Adapter	MODEL	3CRDAG675
MODE	Turbo	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	26deg. C, 62%RH, 991hPa	TESTED BY	Ansen Lei

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	26dBc Occupied Bandwidth (MHz)	PASS/FAIL
1	5210	16.51	17.00	51.80	PASS
2	5250	16.18	17.00	53.48	PASS
3	5290	16.24	24.00	51.38	PASS
4	5760	17.35	30.00	49.14	PASS
5	5800	17.21	30.00	51.38	PASS

NOTE: The 26dBc Occupied Bandwidth plot, please refer to the following pages.

The image shows a spectrum analyzer screen with a grid. A signal trace is visible, peaking at approximately -10 dBm. The peak is labeled with a '1' and a marker '1 [T1]'. The signal is identified as '1 SA * MAXH'. The frequency is 5.21 GHz, and the power is 16.51 dBm. The bandwidth is 50 MHz, and the center frequency is 5.21 GHz. The span is 60 MHz. The resolution bandwidth (RBW) is 300 kHz, and the video bandwidth (VBW) is 1 MHz. The sweep time (SWT) is 20 ms. The reference level (Ref) is 21.5 dBm, and the attenuation (Att) is 30 dB. The offset is 1.5 dB. The signal is identified as '1 SA * MAXH'.

Ref 21.5 dBm *Att 30 dB *RBW 300 kHz Marker 1 [T1] -0.04 dBm 5.20160000 GHz

20 Offset 1.5 dB

10

0

-10

-20

-30

-40

-50

-60

-70

1 SA * MAXH

1

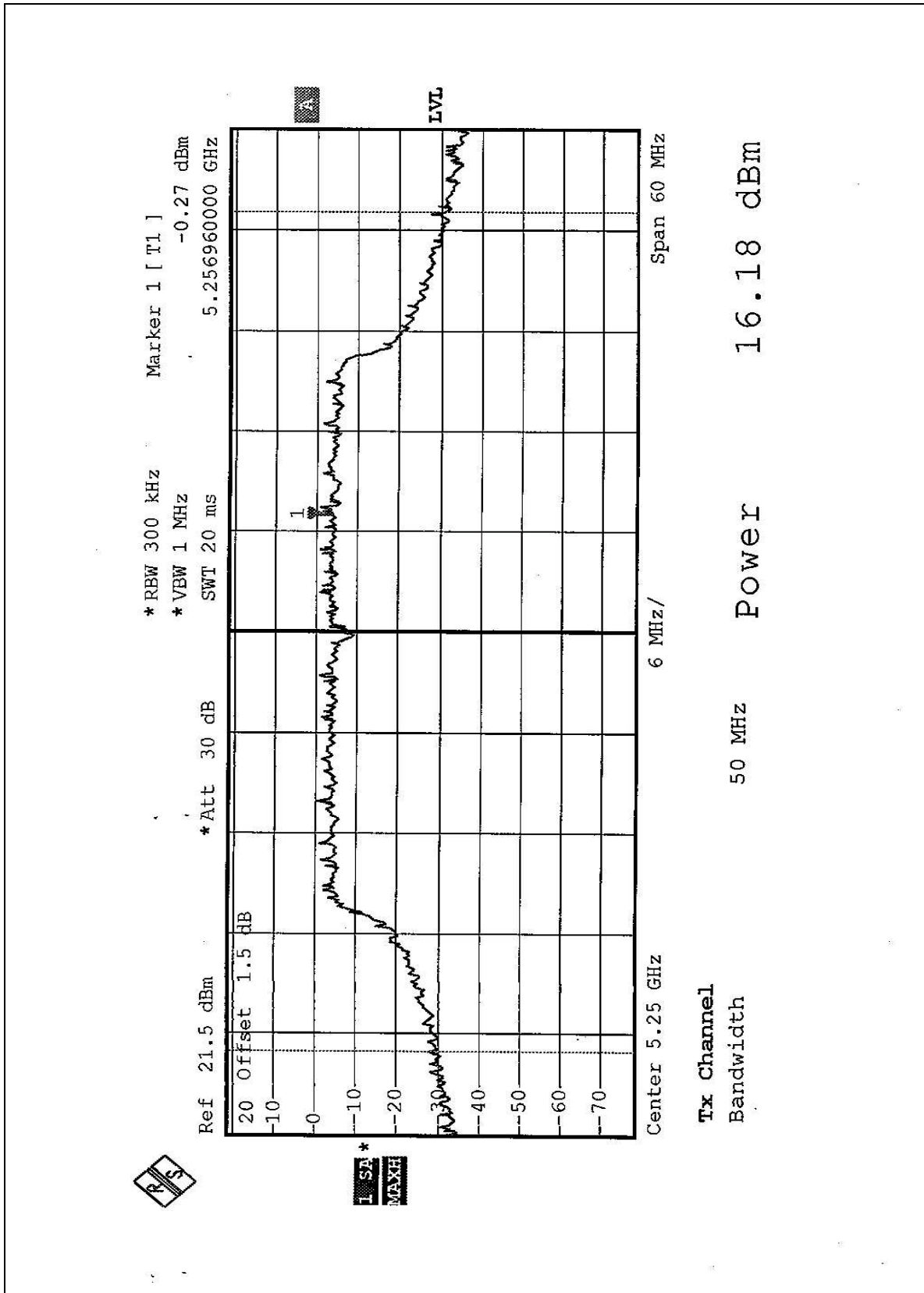
LVL

Center 5.21 GHz 6 MHz/ Span 60 MHz

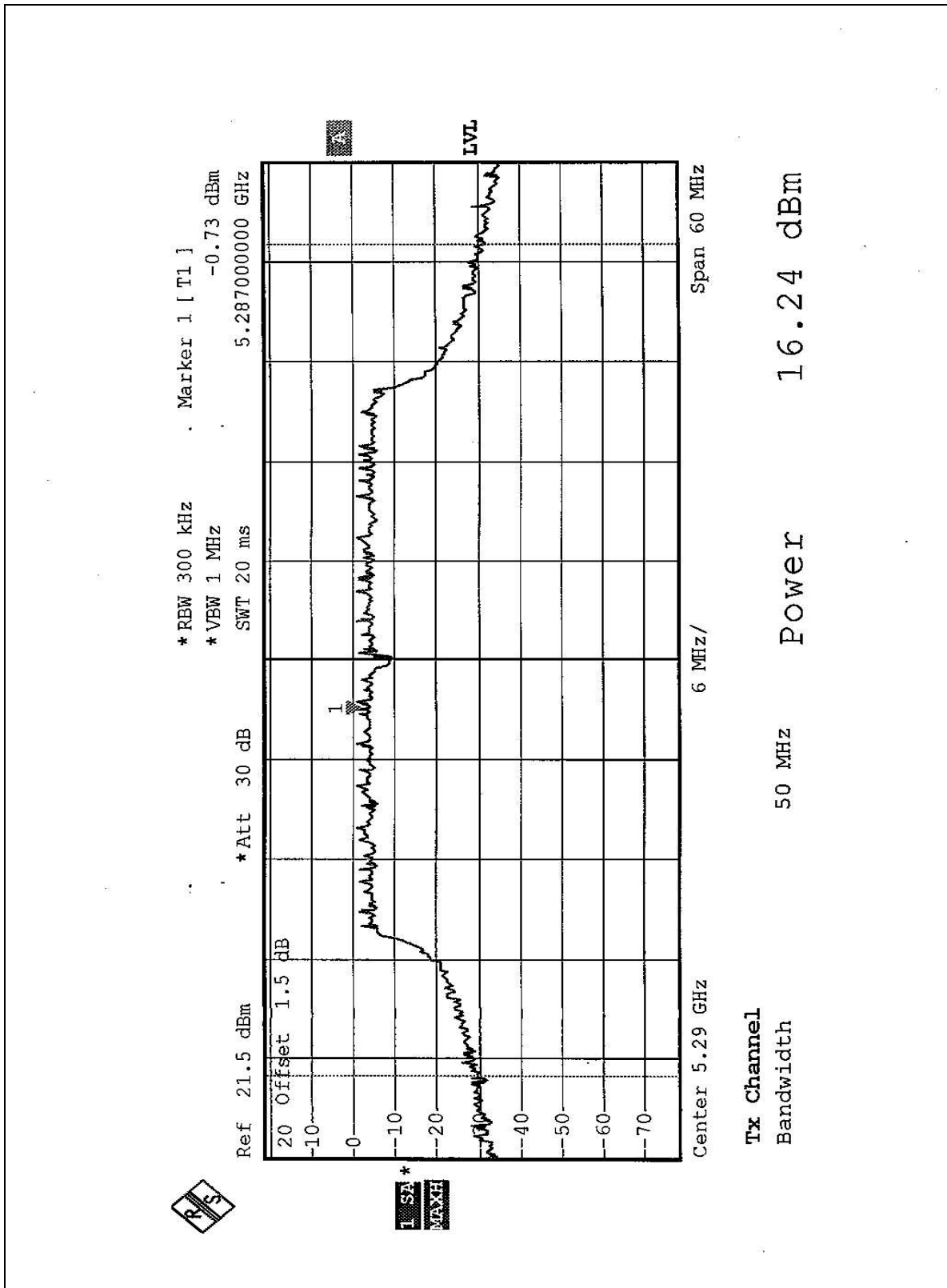
Tx Channel Power 16.51 dBm

Bandwidth 50 MHz

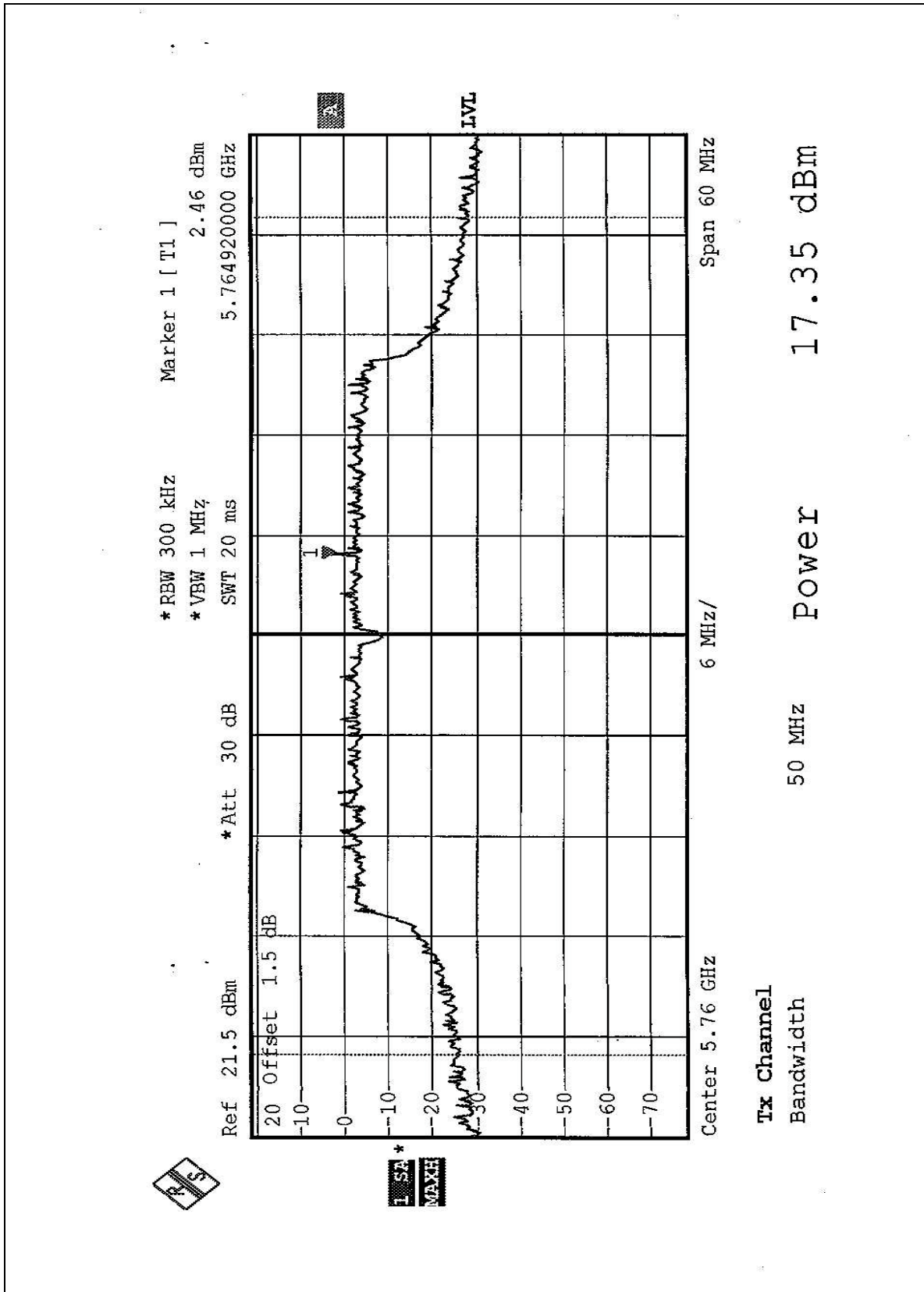
CHANNEL 2



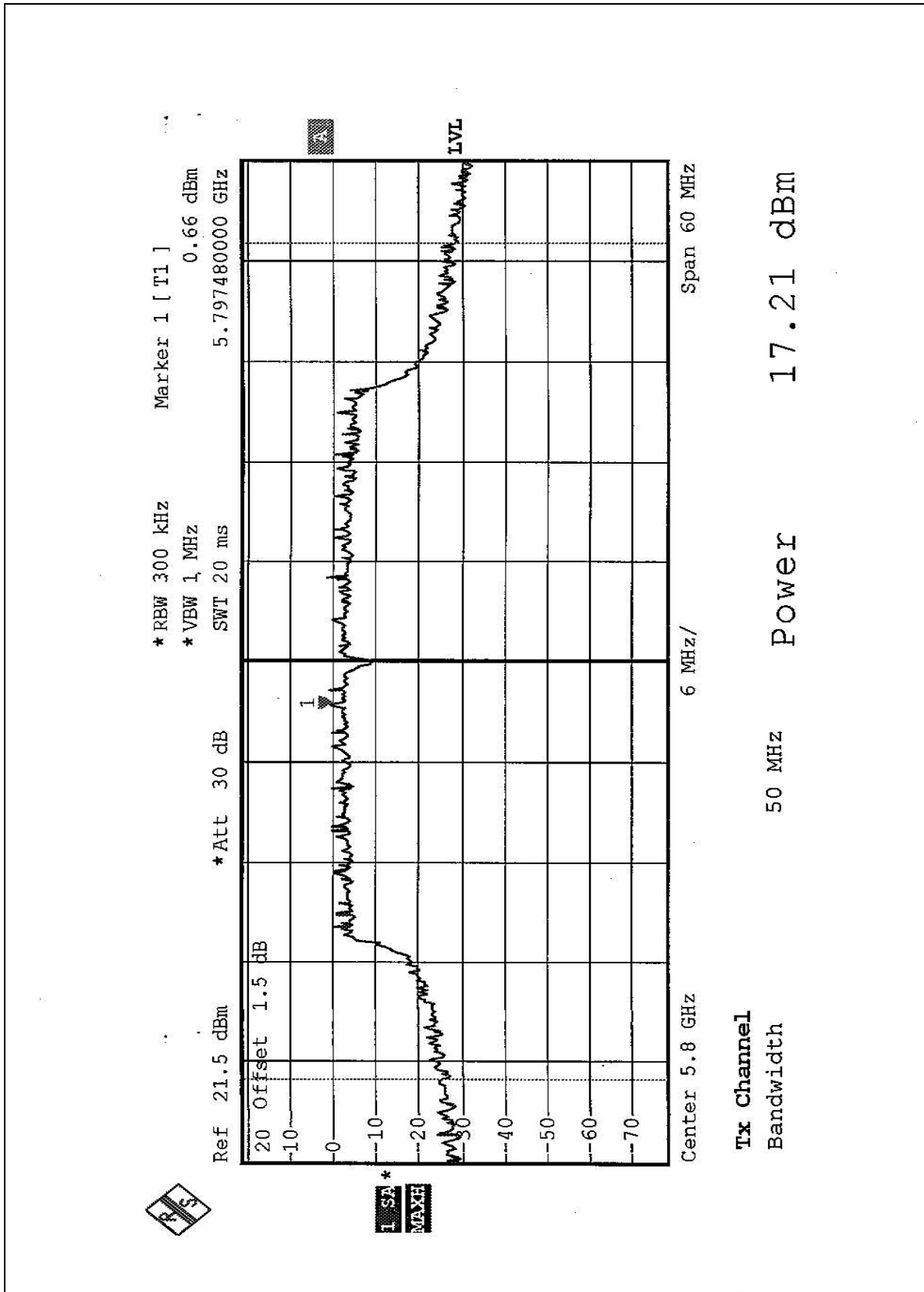
CHANNEL 3



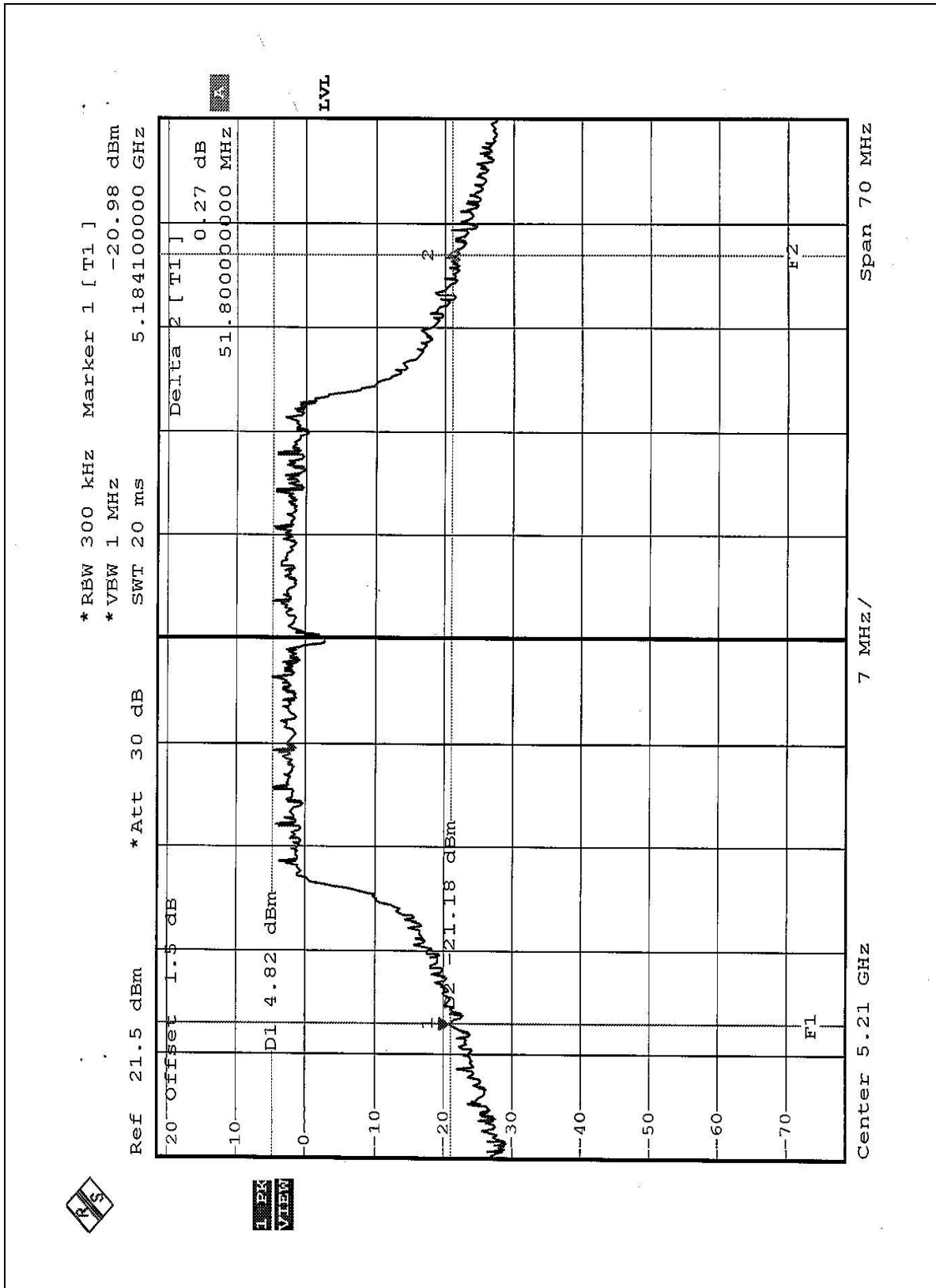
CHANNEL 4



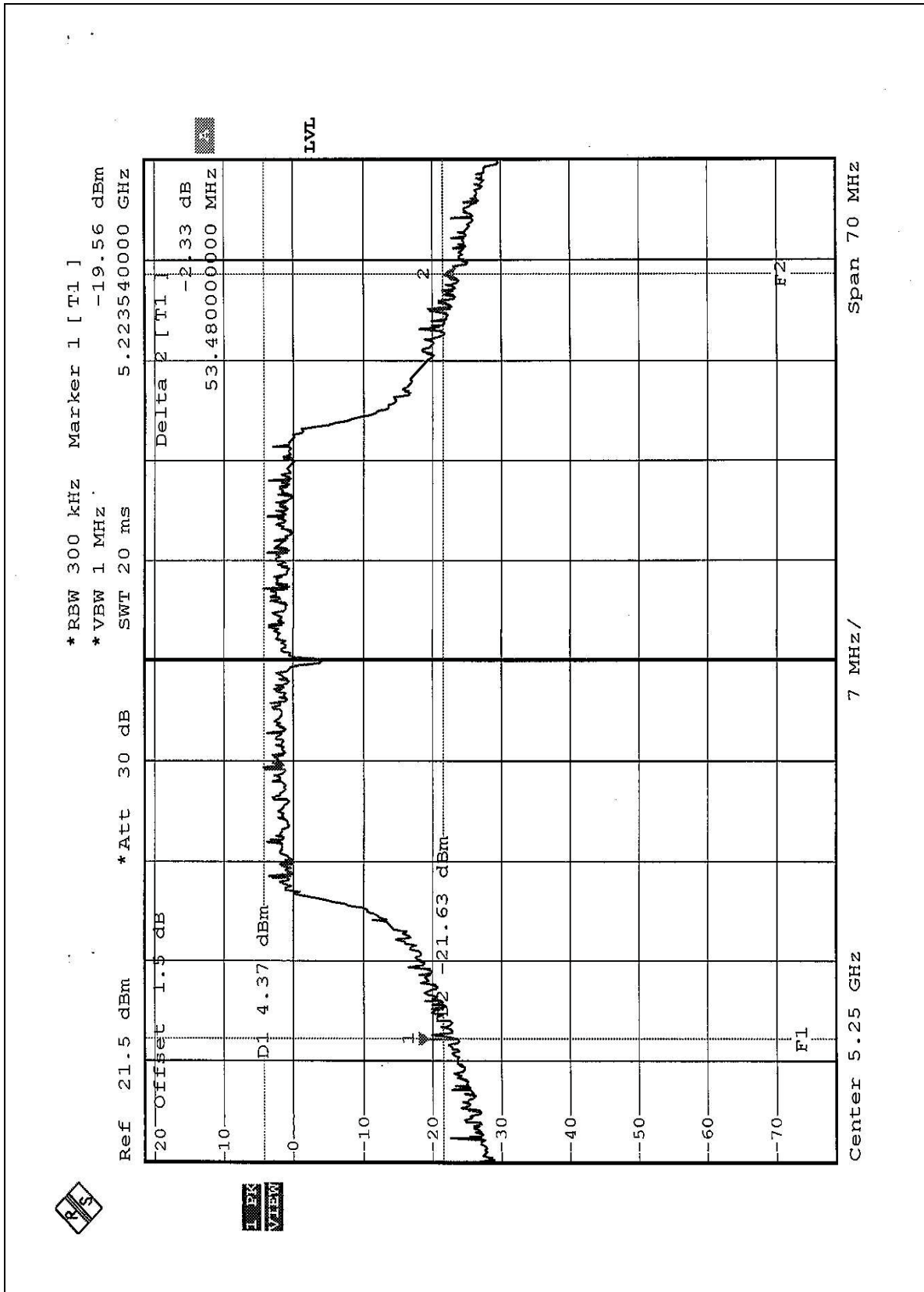
CHANNEL 5



CHANNEL 1



CHANNEL 2



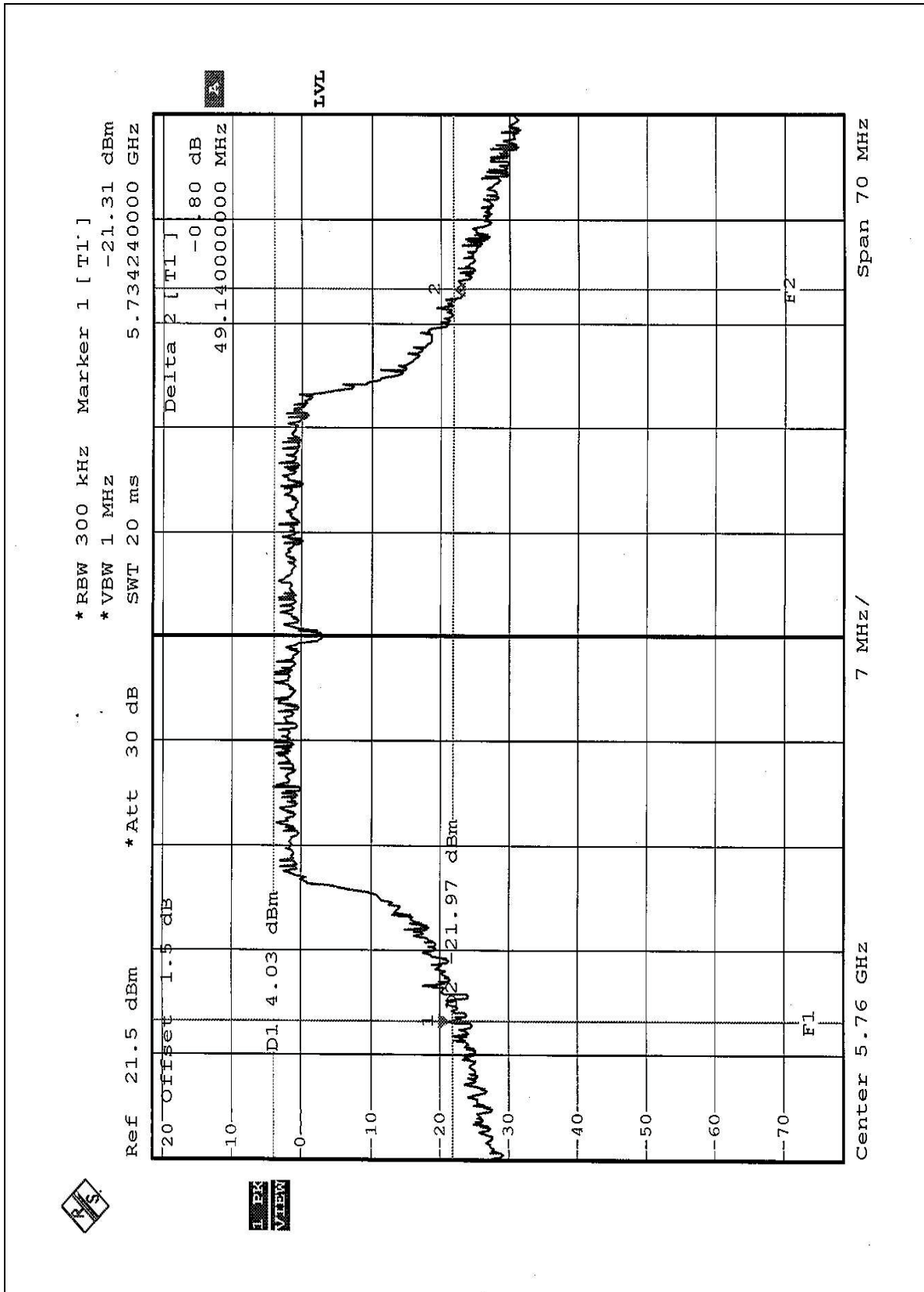
*RBW 300 kHz Marker 1 [T1]
 *VBW 1 MHz -20.55 dBm
 *Att 30 dB SWT 20 ms 5.263820000 GHz

Ref 21.5 dBm 20 Offset 1.5 dB
 Delta 2 [T1] -1.18 dB
 51.38000000 MHz

Center 5.29 GHz Span 70 MHz
 7 MHz/

1 PK VIEW
 2

CHANNEL 4



CHANNEL 5

