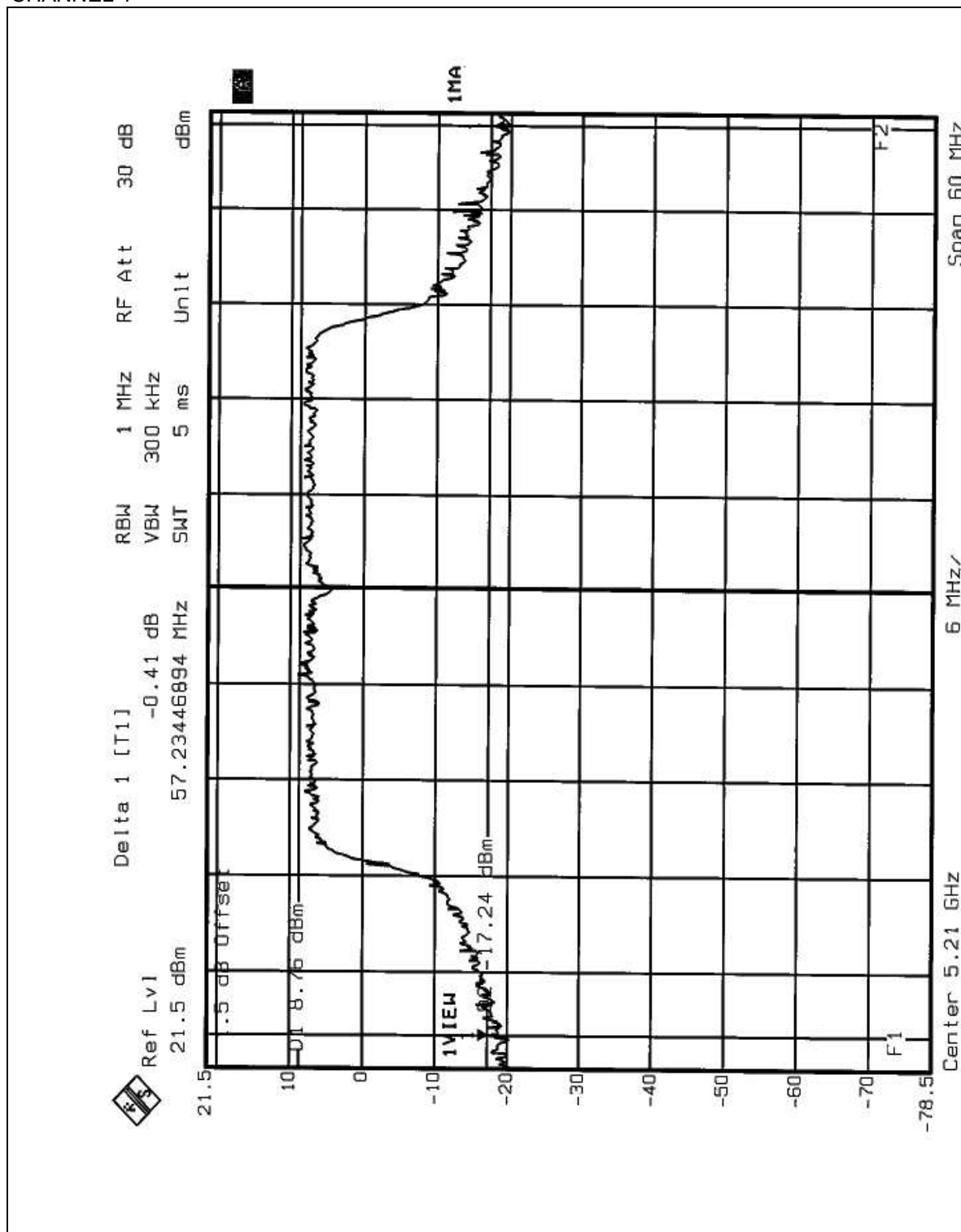
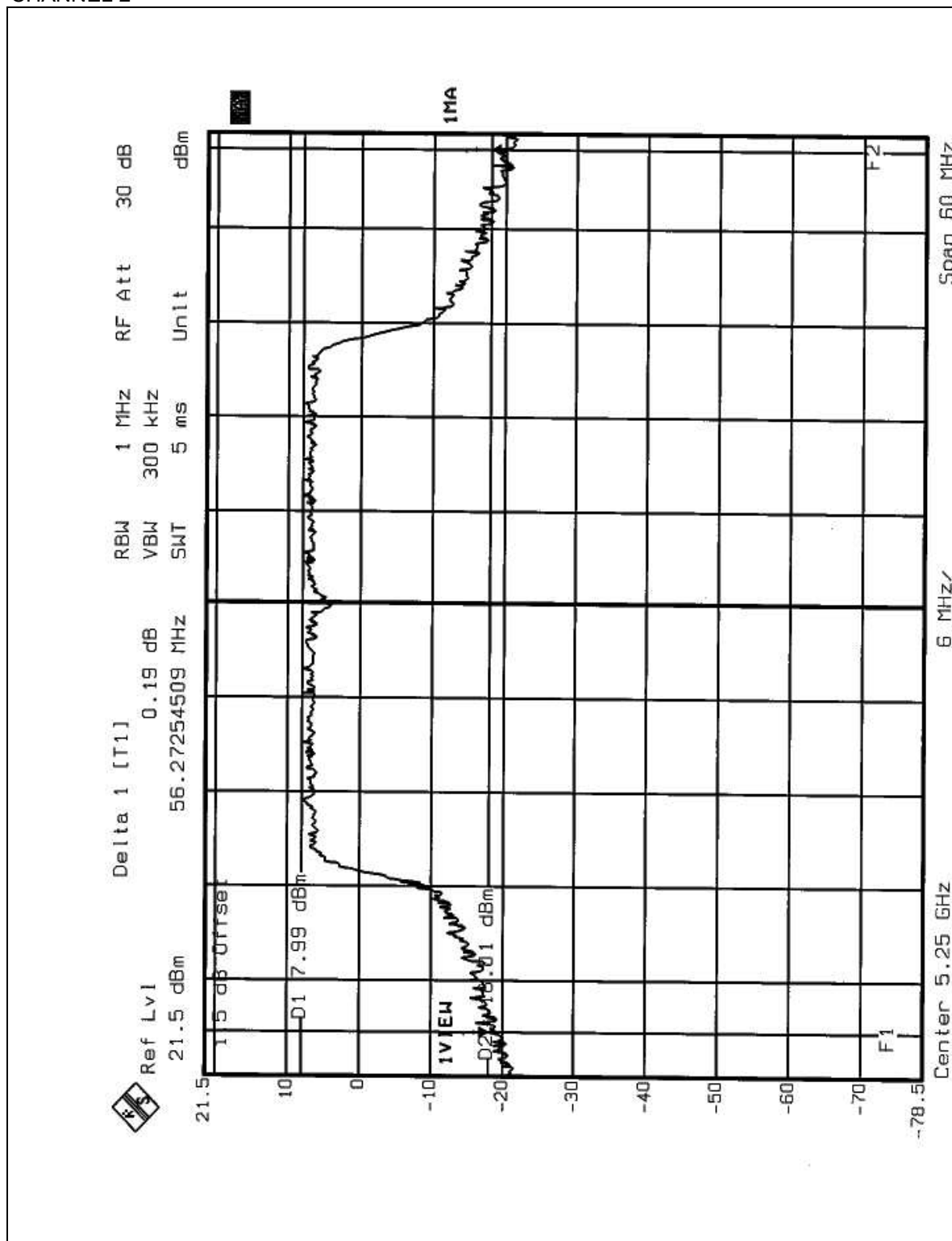


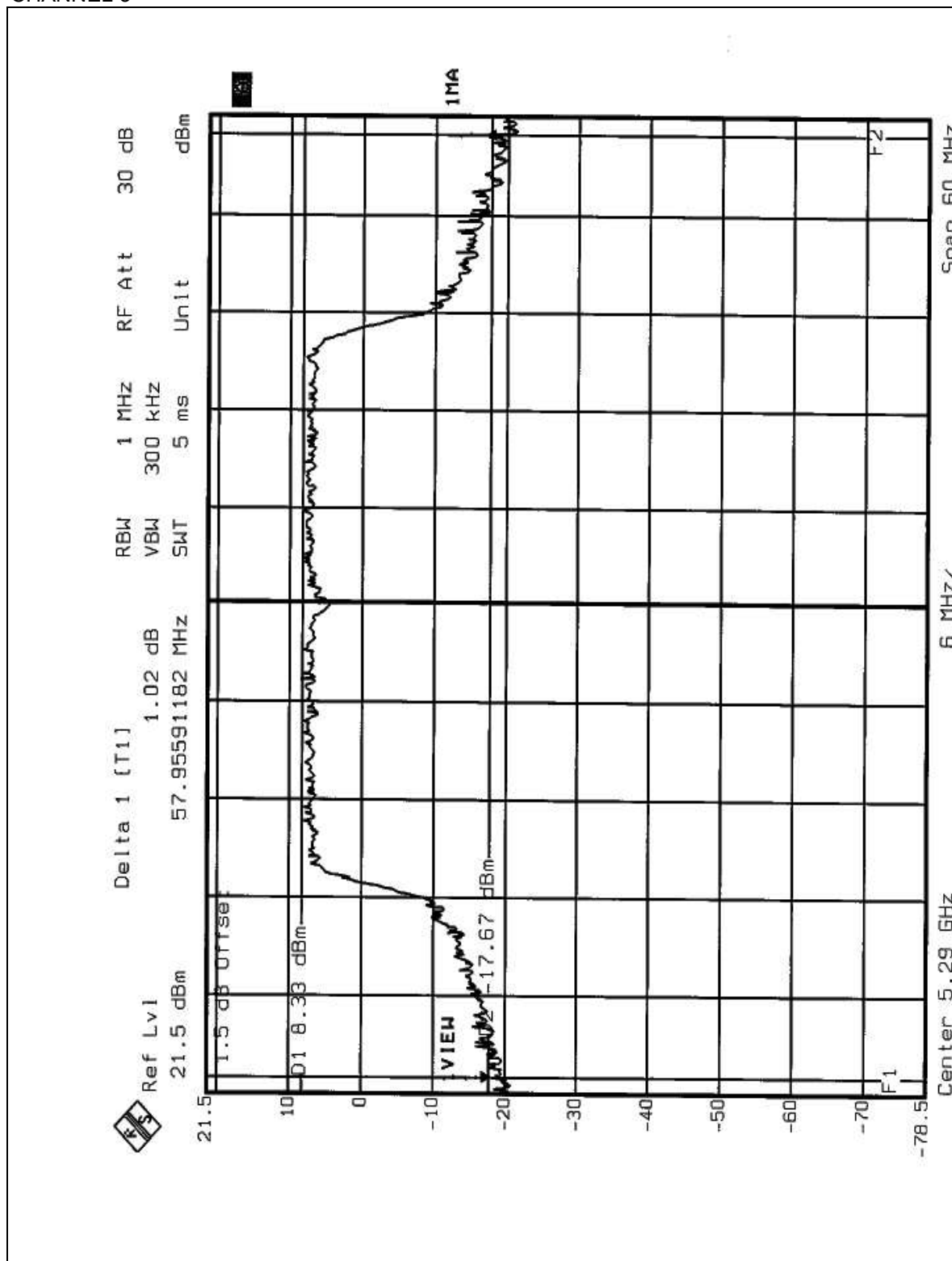
CHANNEL 1



CHANNEL 2



CHANNEL 3



Delta 1 [T1]
0.02 dB
54.46893788 MHz
1 MHz
300 kHz
5 ms
Unit
dBm

Ref Lvl
21.5 dBm

1VIEW

1MA

21.5
10
0
-10
-20
-30
-40
-50
-60
-70
-78.5

21.5 dB Offset

5.57 dBm

26.43 dBm

F1

F2

Center 5.76 GHz

Span 60 MHz

5.4 PEAK POWER EXCURSION MEASUREMENT

5.4.1 LIMITS OF PEAK POWER EXCURSION MEASUREMENT

Frequency Band	Limit
5.15 – 5.25 GHz	13dB
5.25 – 5.35 GHz	13dB
5.725 – 5.825 GHz	13dB

5.4.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
SPECTRUM ANALYZER	FSEK30	100049	July 24, 2003

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

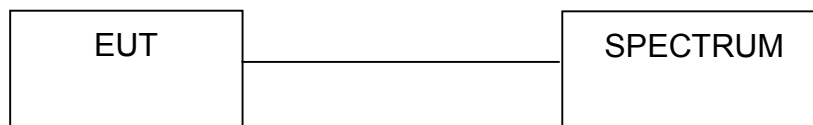
5.4.3 TEST PROCEDURE

1. The transmitter output was connected to the spectrum analyzer.
2. Set the spectrum bandwidth span to view the entire spectrum.
3. Using peak detector and Max-hold function for Trace 1 (RB=1MHz, VB=3MHz) and 2 (RB=1MHz, VB=300kHz).
4. The largest difference between Trace 1 and Trace 2 in any 1MHz band on any frequency was recorded.

5.4.4 DEVIATION FROM TEST STANDARD

No deviation

5.4.5 TEST SETUP



5.4.6 EUT OPERATING CONDITIONS

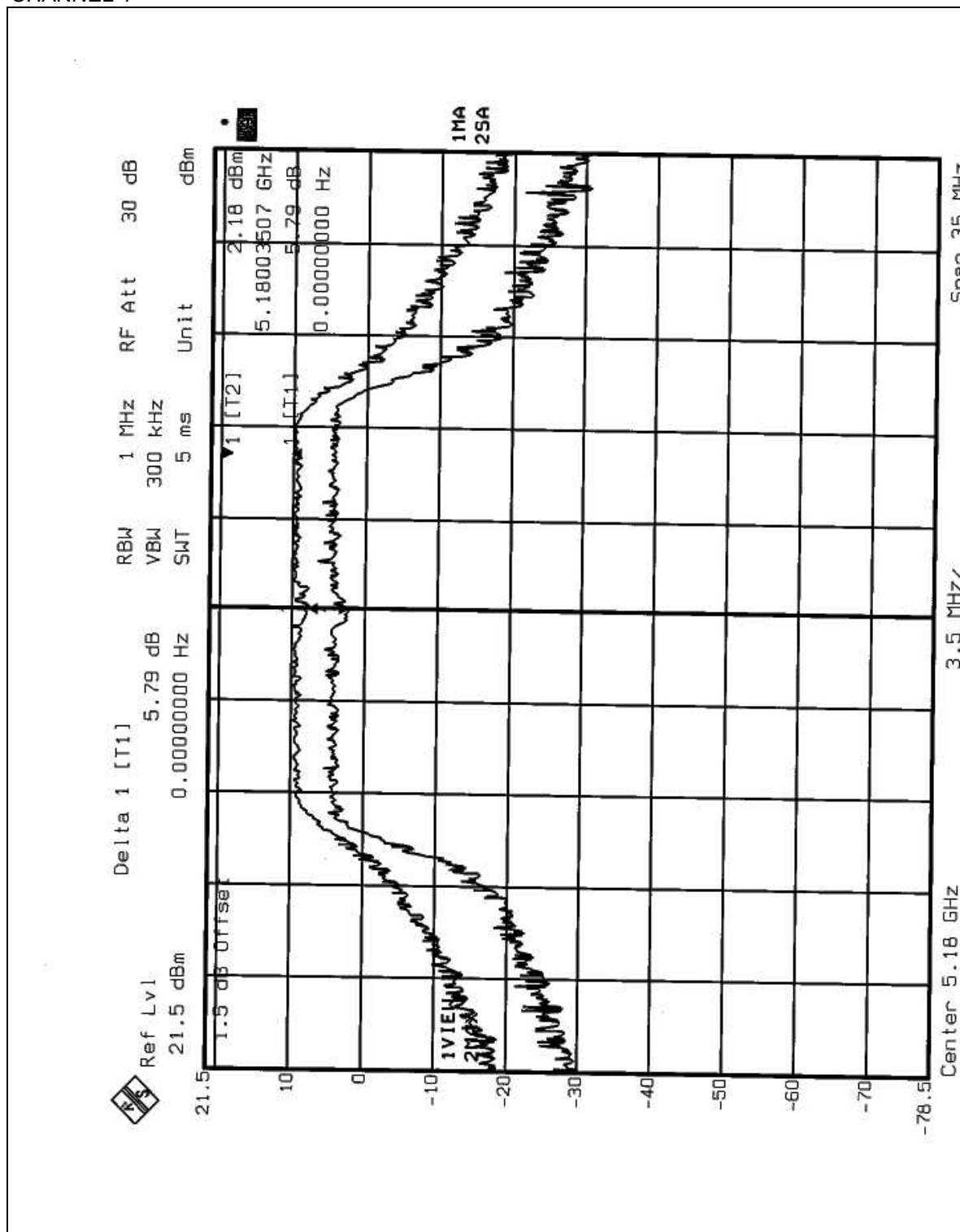
The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

5.4.7 TEST RESULTS

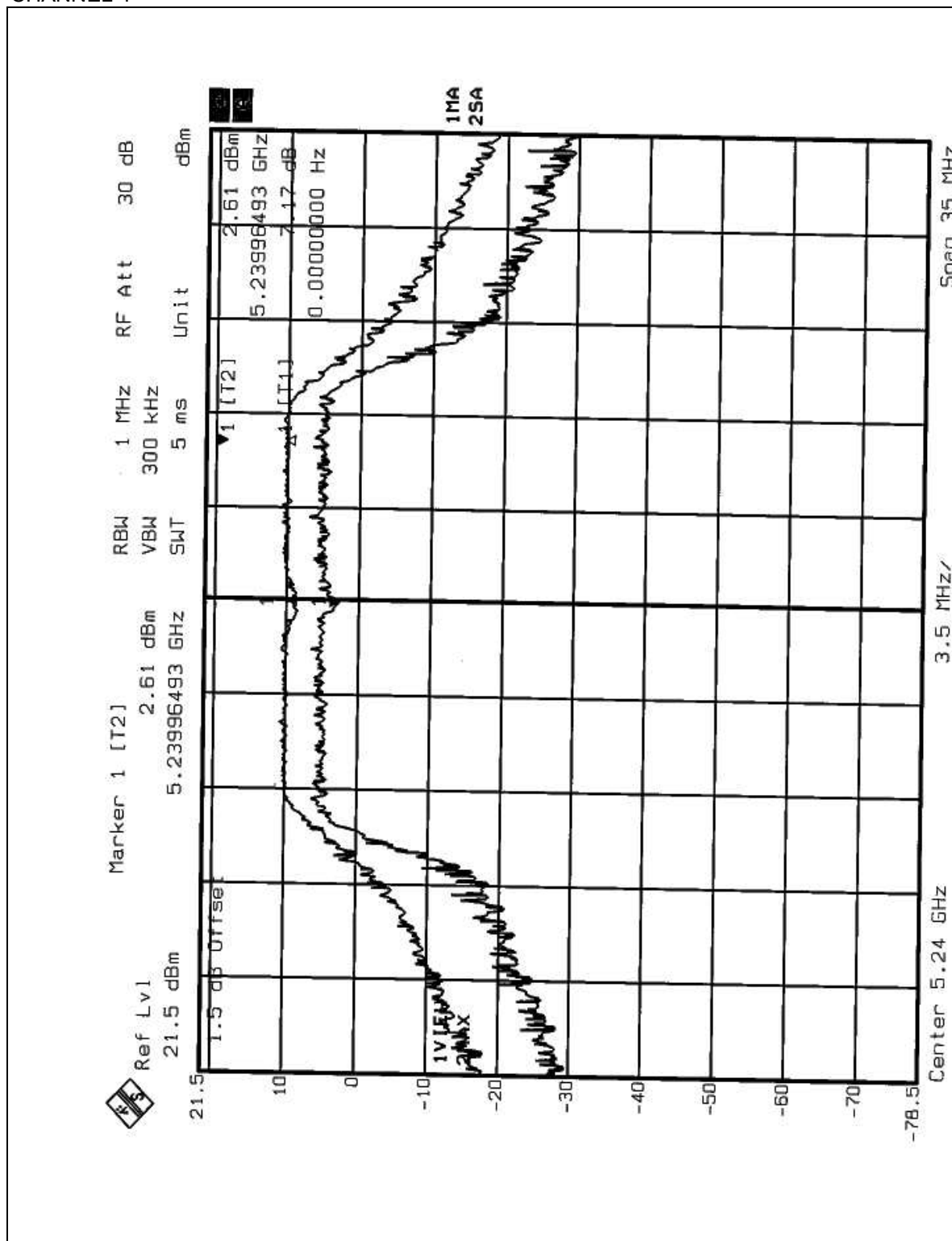
EUT	WLAN Mobile Adapter 2201	MODEL	WLAN Mobile Adapter 2201
MODE	Normal	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	19deg. C, 68%RH, 1005 hPa	TESTED BY	Ansen Lei

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
1	5180	5.79	13	PASS
4	5240	7.17	13	PASS
5	5260	6.65	13	PASS
8	5320	7.09	13	PASS
9	5745	6.71	13	PASS
12	5805	5.98	13	PASS

CHANNEL 1

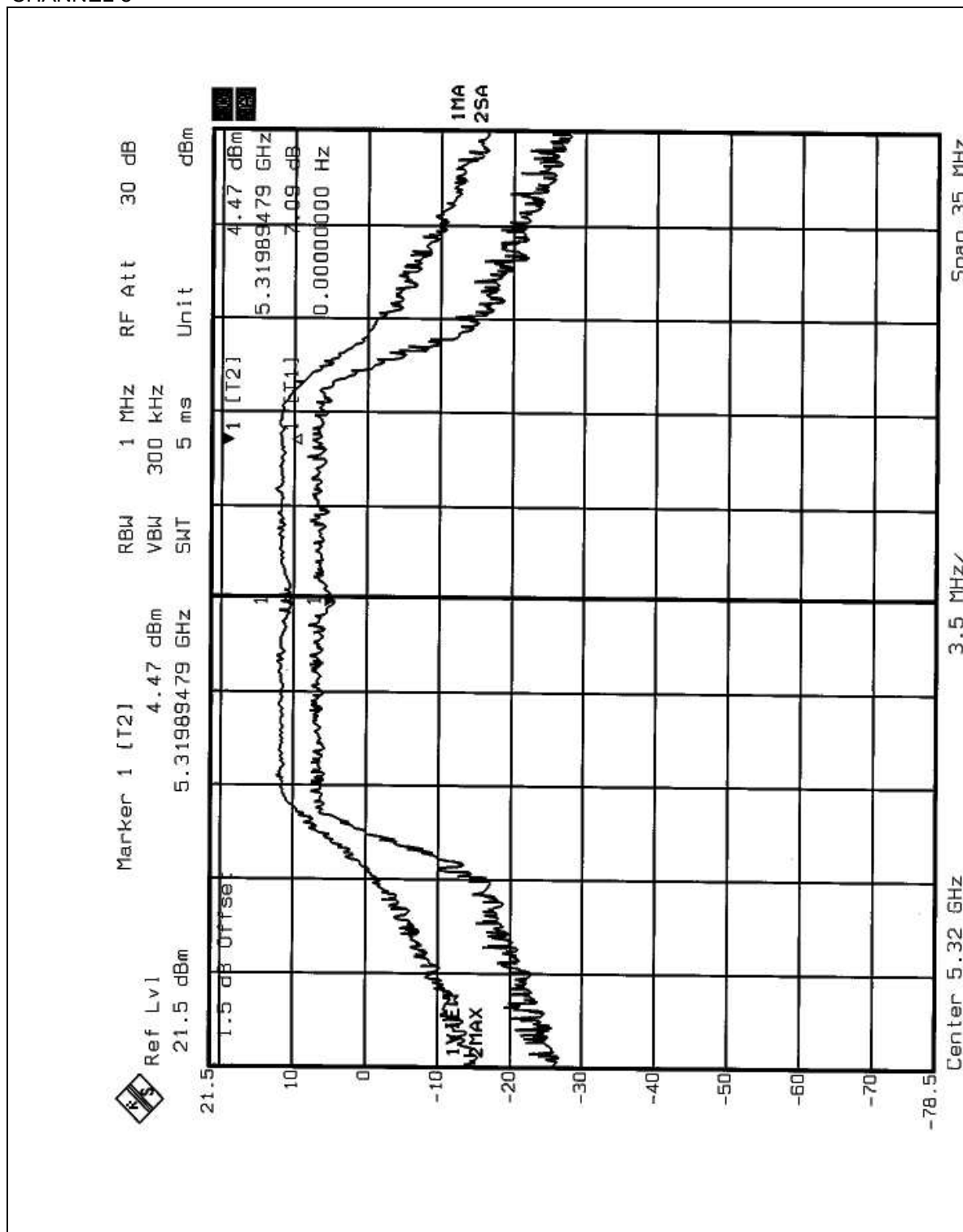


CHANNEL 4



[illegible]

CHANNEL 8



Marker 1 [T2] 3.99 dBm 5.74489479 GHz

Ref Lvl 21.5 dBm

RBW 1 MHz 300 kHz

VBW 5 ms

SWT 5 ms

Unit dBm

1V 100Hz

2V MAX

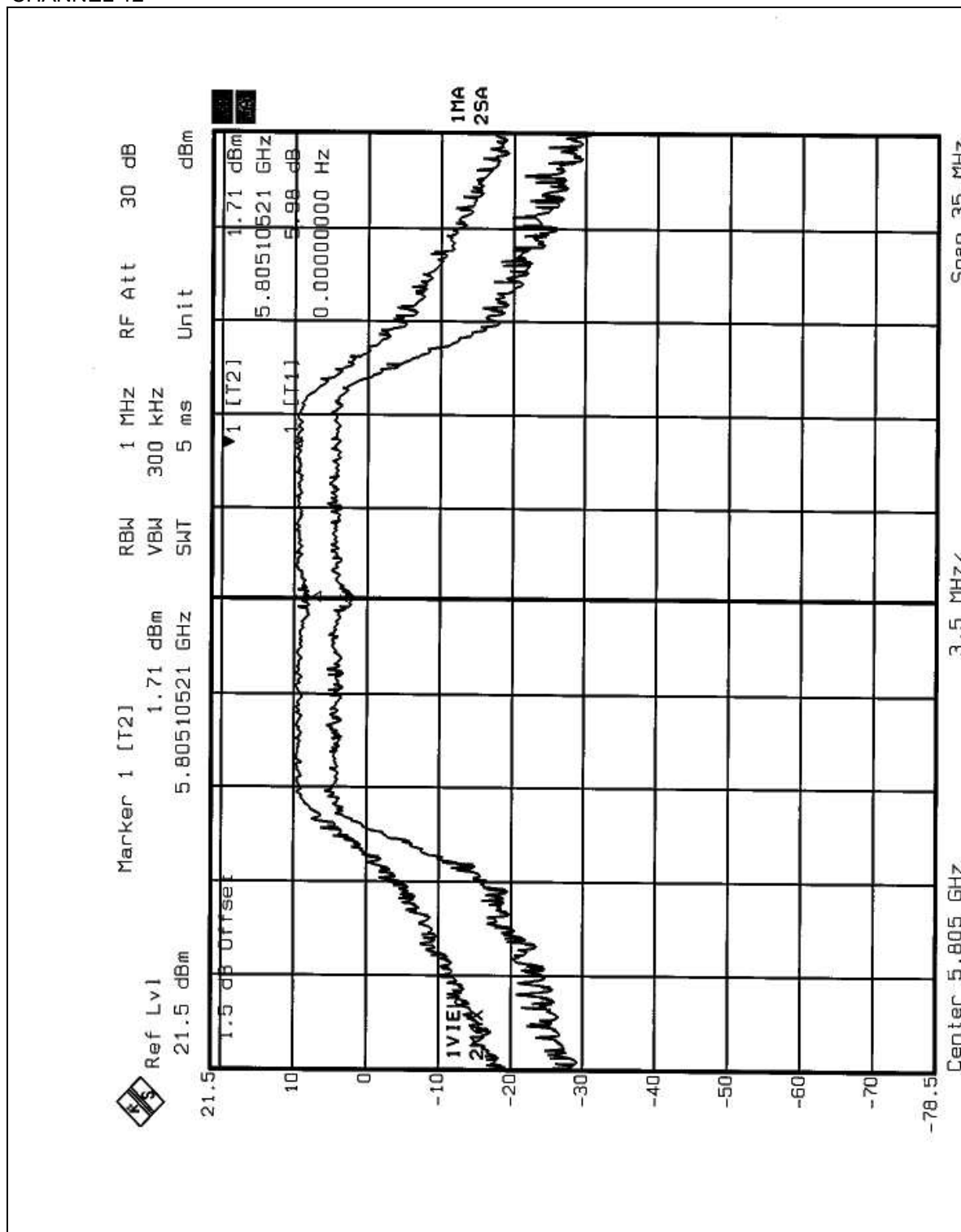
1MA

2SA

Center 5.745 GHz

Span 35 MHz

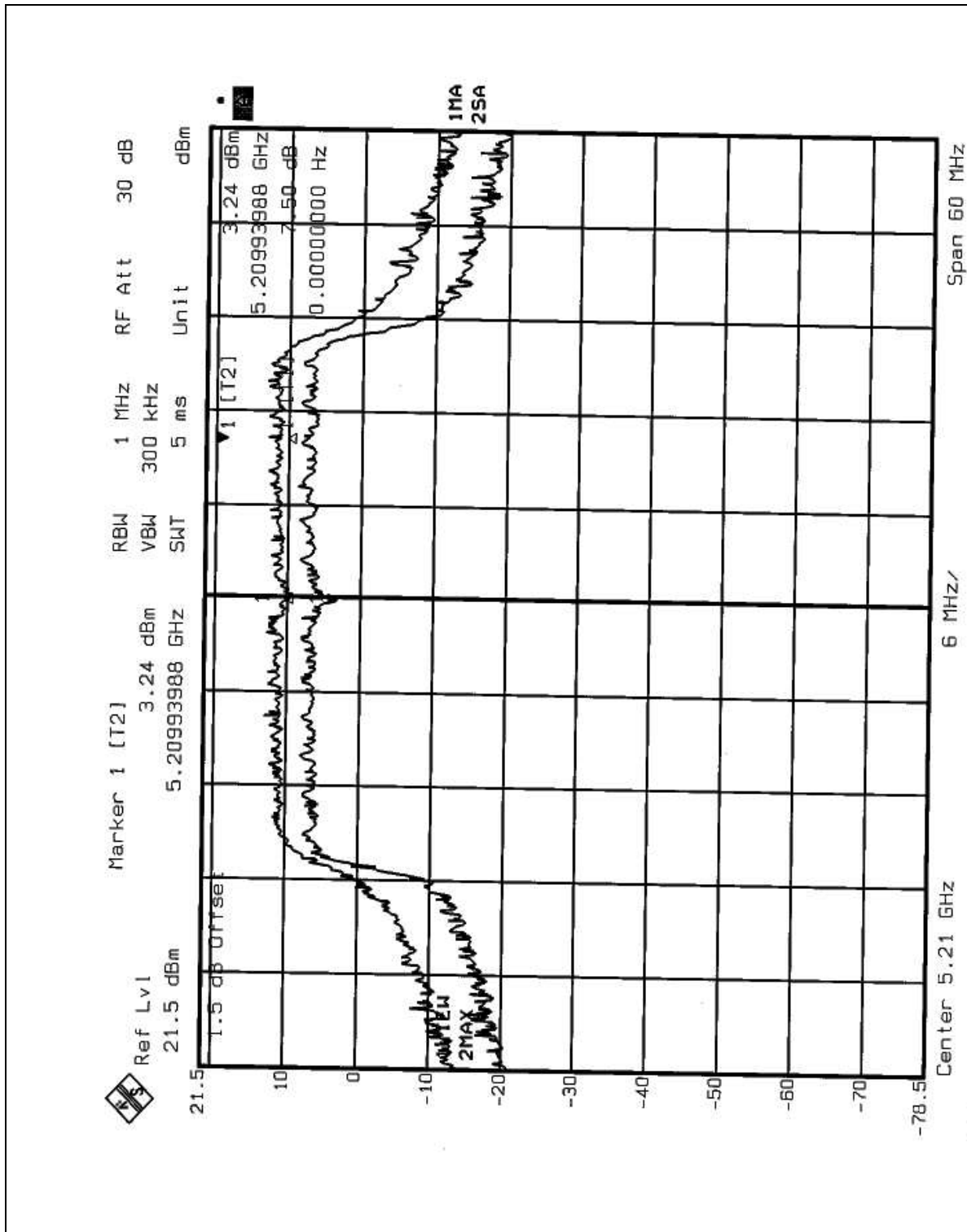
CHANNEL 12



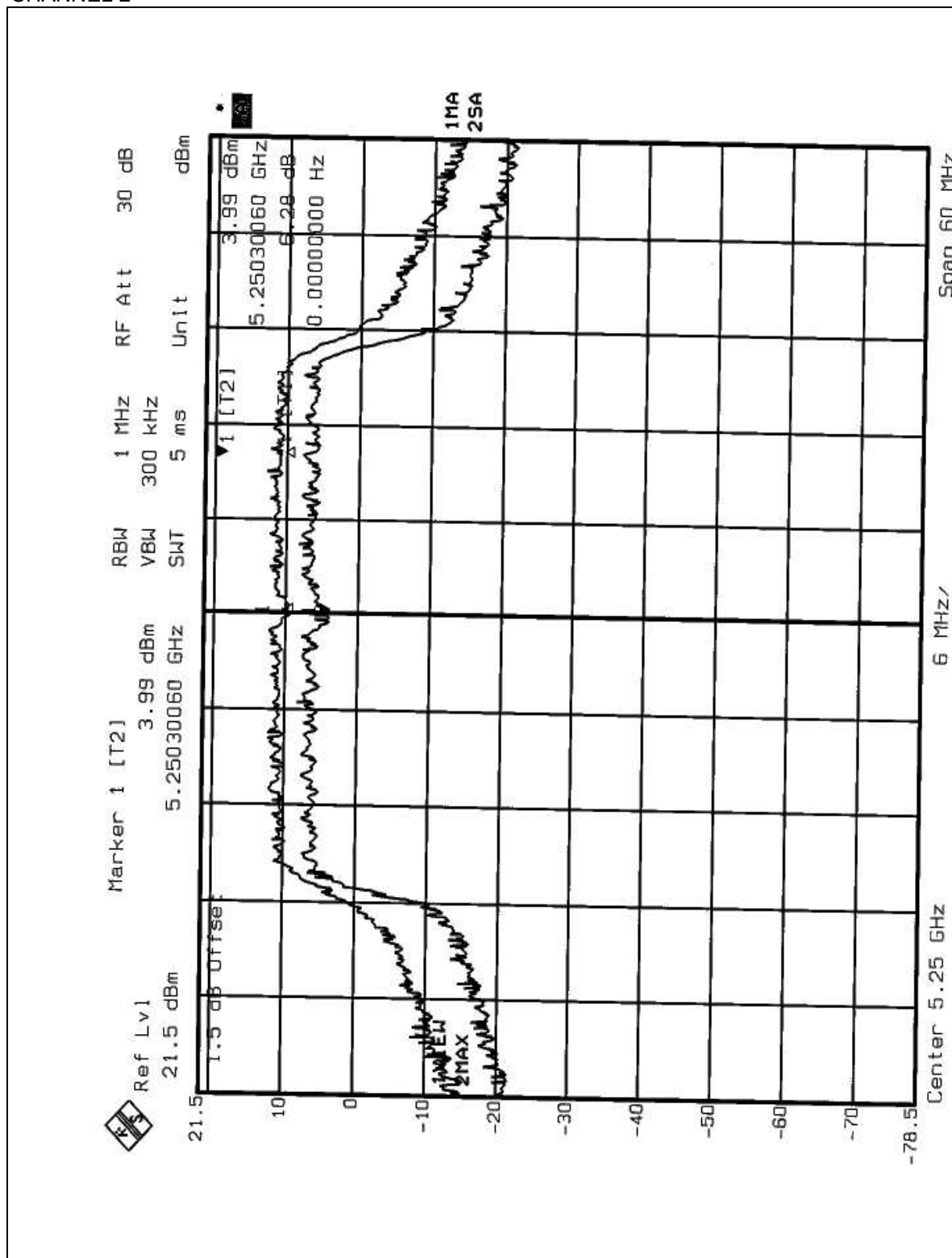
EUT	WLAN Mobile Adapter 2201	MODEL	WLAN Mobile Adapter 2201
MODE	Turbo	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	19deg. C, 68%RH, 1005 hPa	TESTED BY	Ansen Lei

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
1	5210	7.50	13	PASS
2	5250	6.28	13	PASS
3	5290	7.44	13	PASS
4	5760	6.55	13	PASS
5	5800	5.89	13	PASS

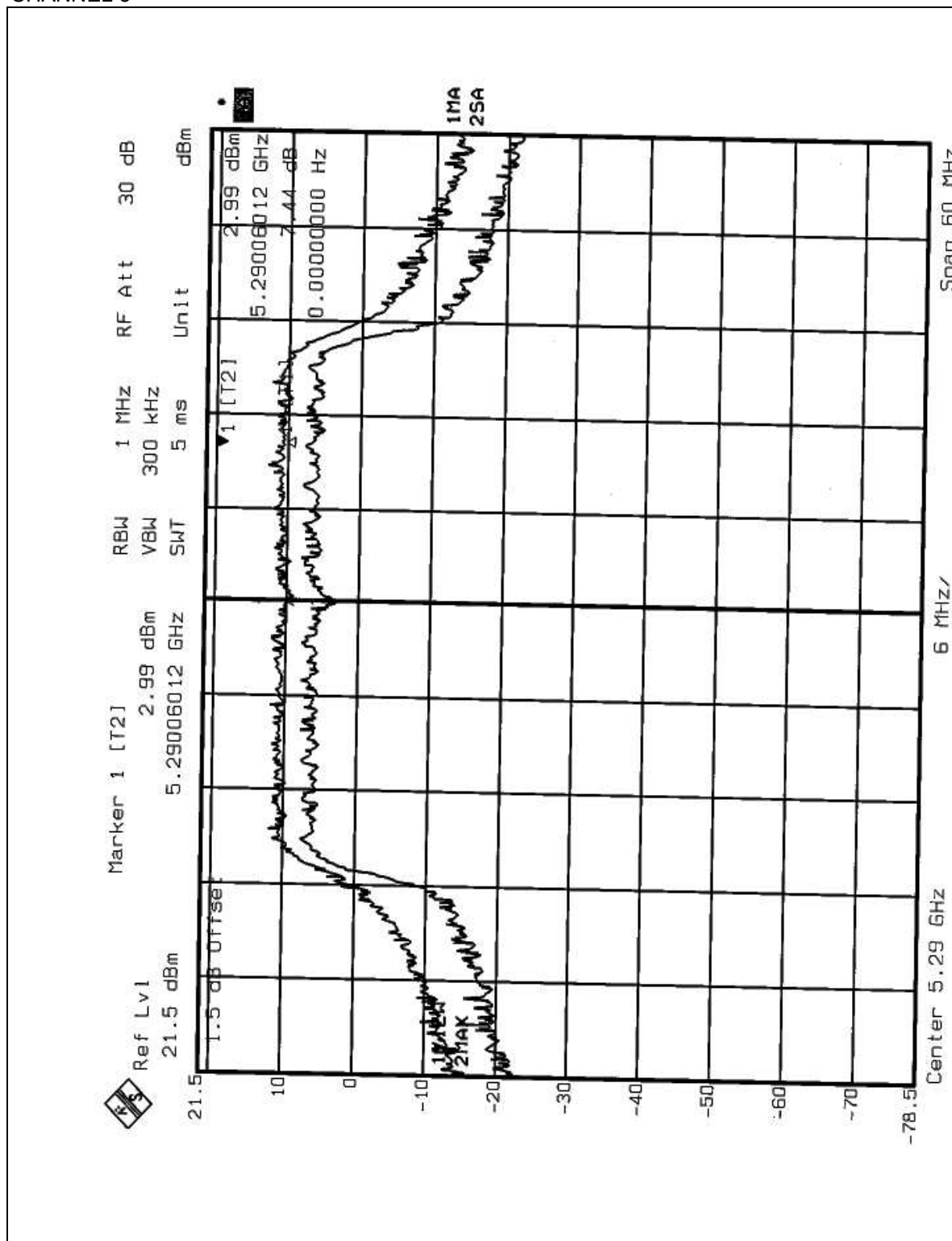
CHANNEL 1



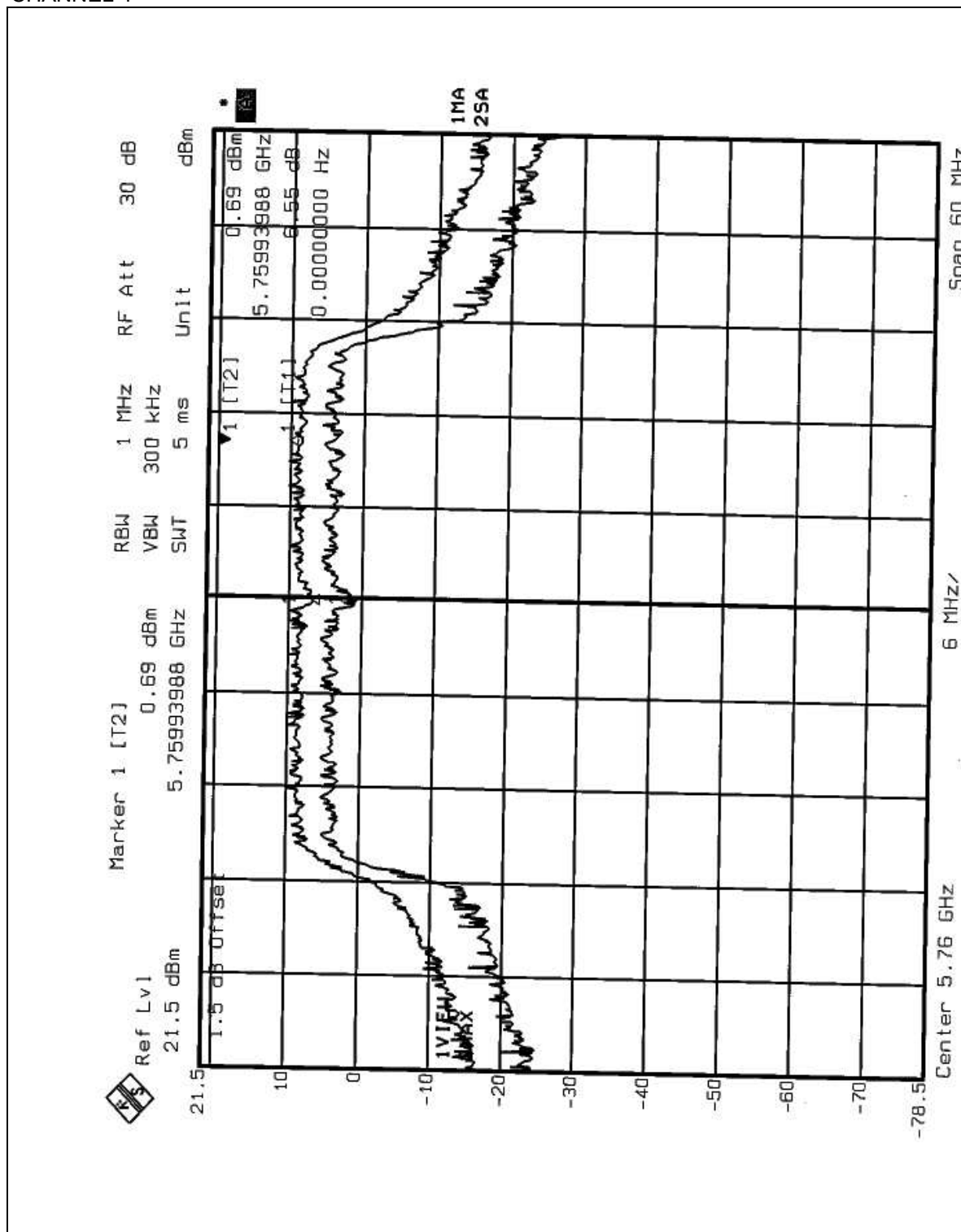
CHANNEL 2



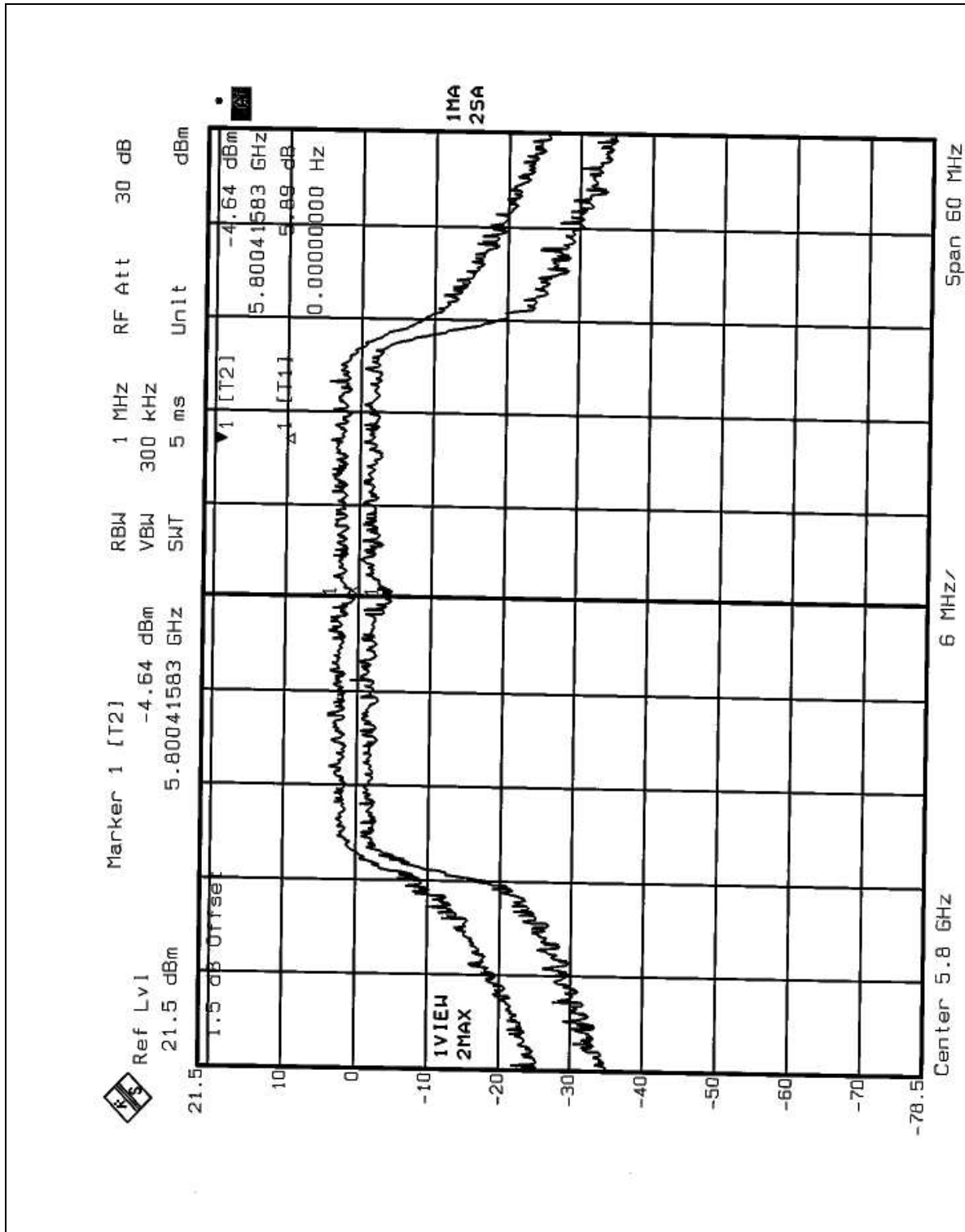
CHANNEL 3



CHANNEL 4



CHANNEL 5



5.5 PEAK POWER SPECTRAL DENSITY MEASUREMENT

5.5.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

Frequency Band	Limit
5.15 – 5.25 GHz	4dBm
5.25 – 5.35 GHz	11dBm
5.725 – 5.825 GHz	17dBm

5.5.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
SPECTRUM ANALYZER	FSEK30	100049	July 24, 2003

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

5.5.3 TEST PROCEDURES

1. The transmitter output was connected to the spectrum analyzer.
2. Set RBW=1MHz, VBW=3MHz. The PPSD is the highest level found across the emission in any 1MHz band.

5.5.4 DEVIATION FROM TEST STANDARD

No deviation

5.5.5 TEST SETUP



5.5.6 EUT OPERATING CONDITIONS

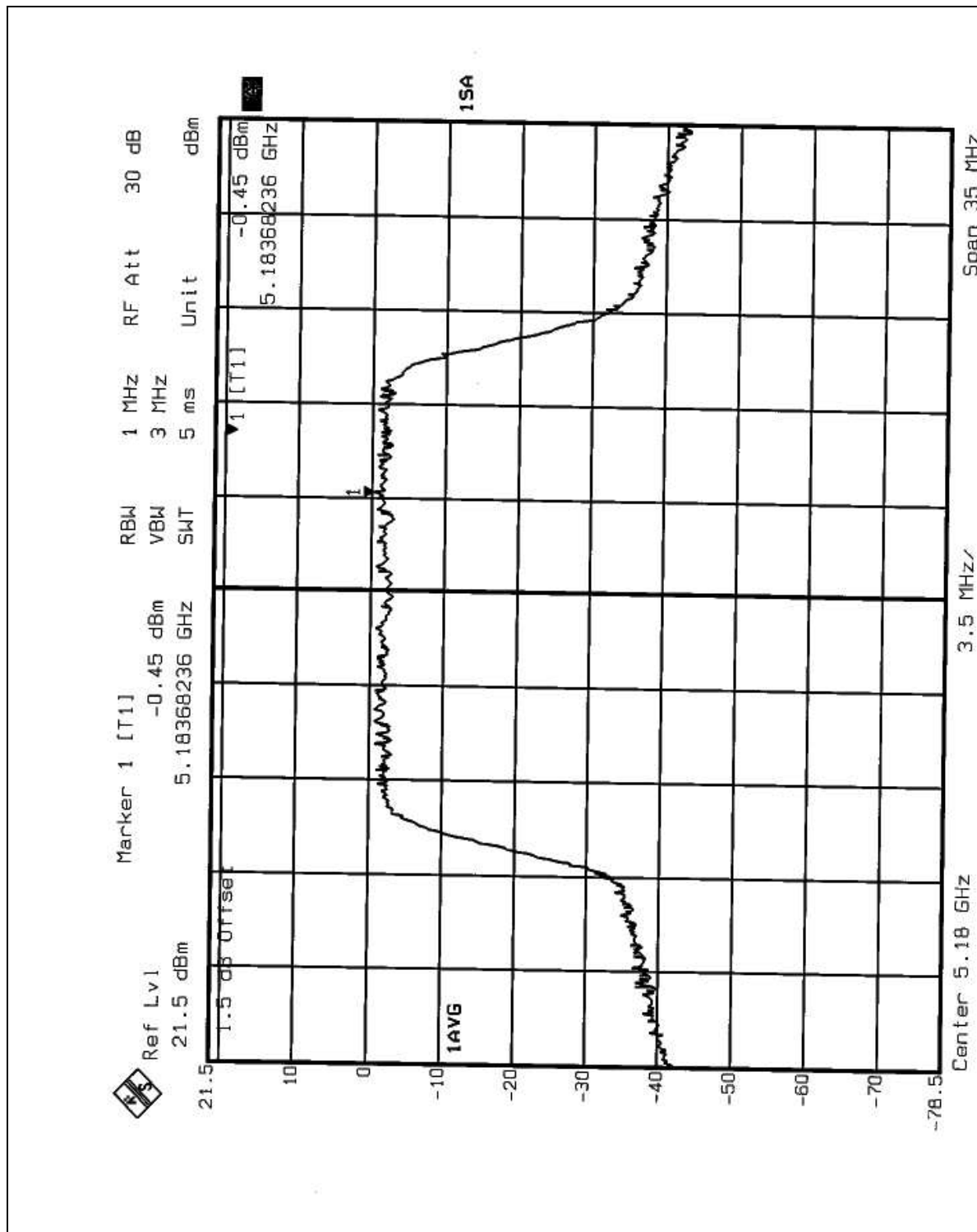
Same as 5.3.6

5.5.7 TEST RESULTS

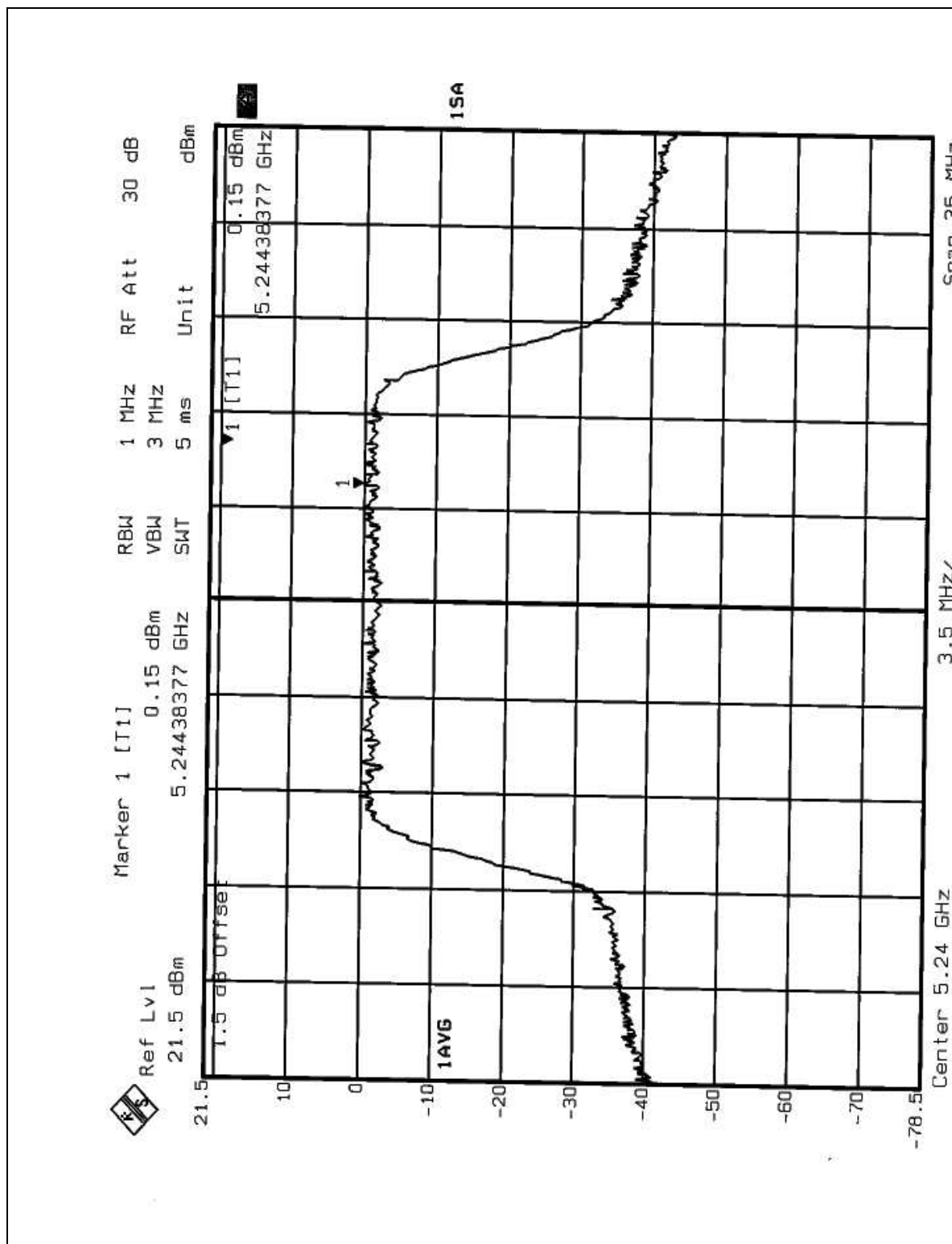
EUT	WLAN Mobile Adapter 2201	MODEL	WLAN Mobile Adapter 2201
MODE	Normal	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	19deg. C, 68%RH, 1005 hPa	TESTED BY	Ansen Lei

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	5180	-0.45	4	PASS
4	5240	0.15	4	PASS
5	5260	4.37	11	PASS
8	5320	1.83	11	PASS
9	5745	1.30	17	PASS
12	5805	-0.88	17	PASS

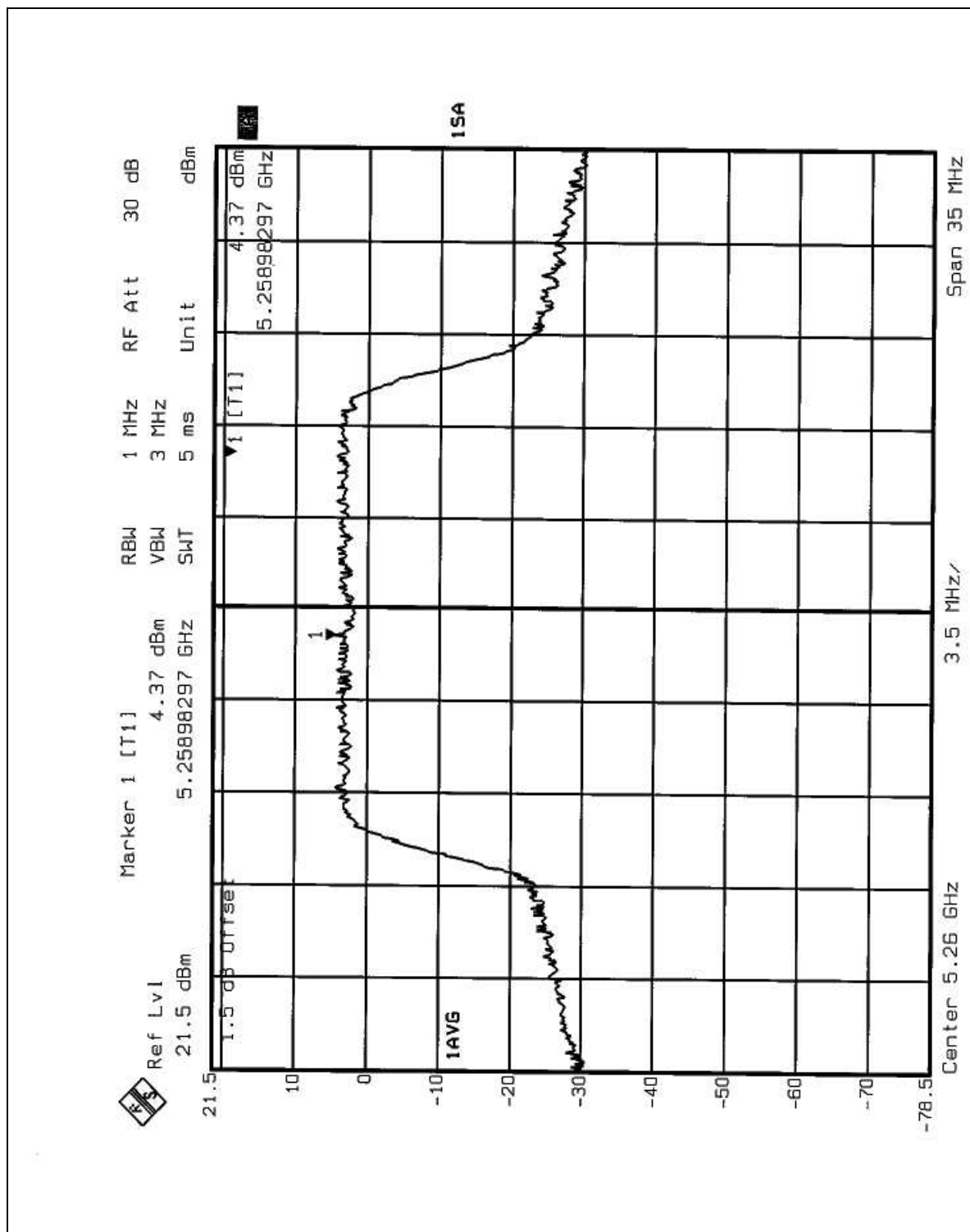
CHANNEL 1



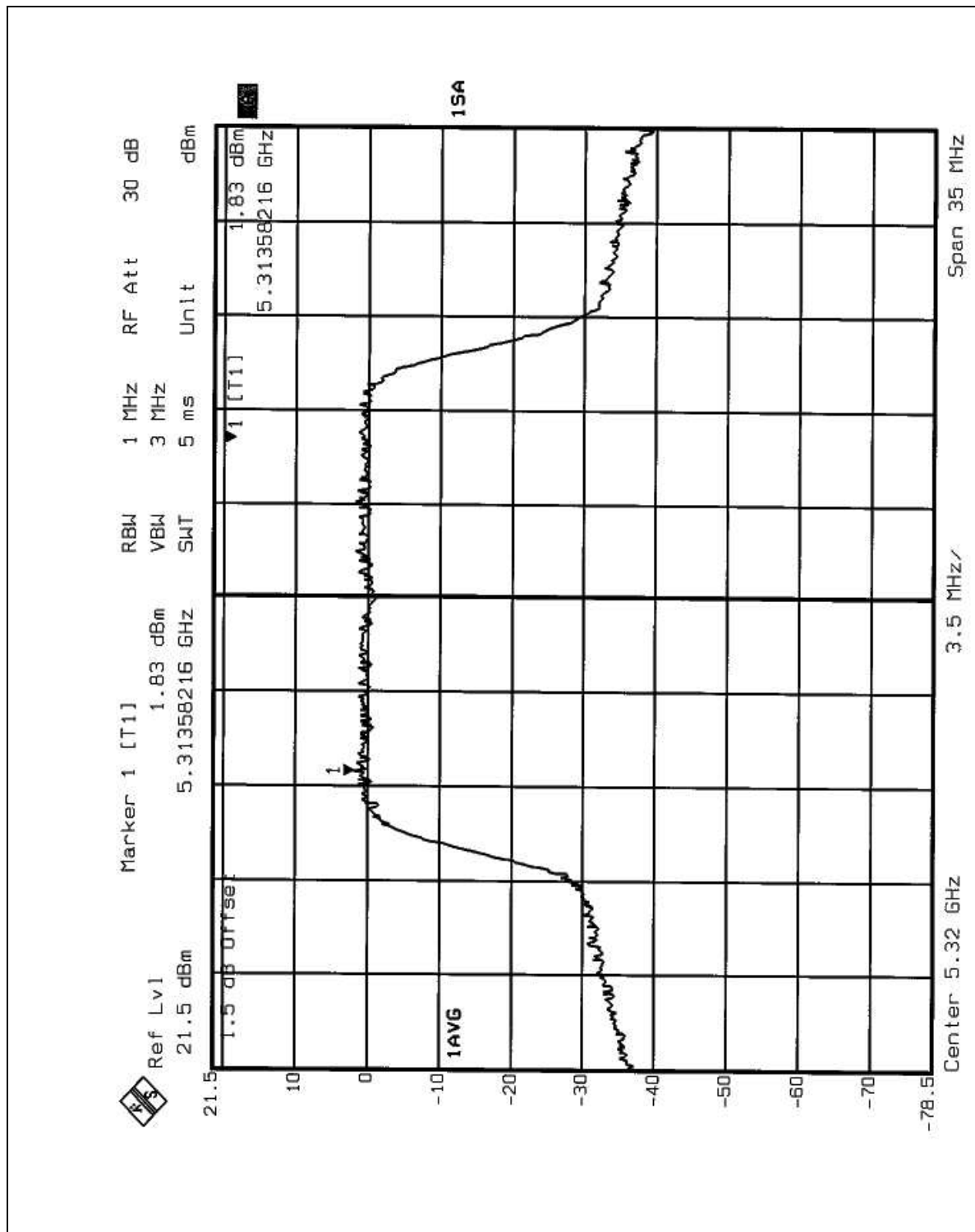
CHANNEL 4



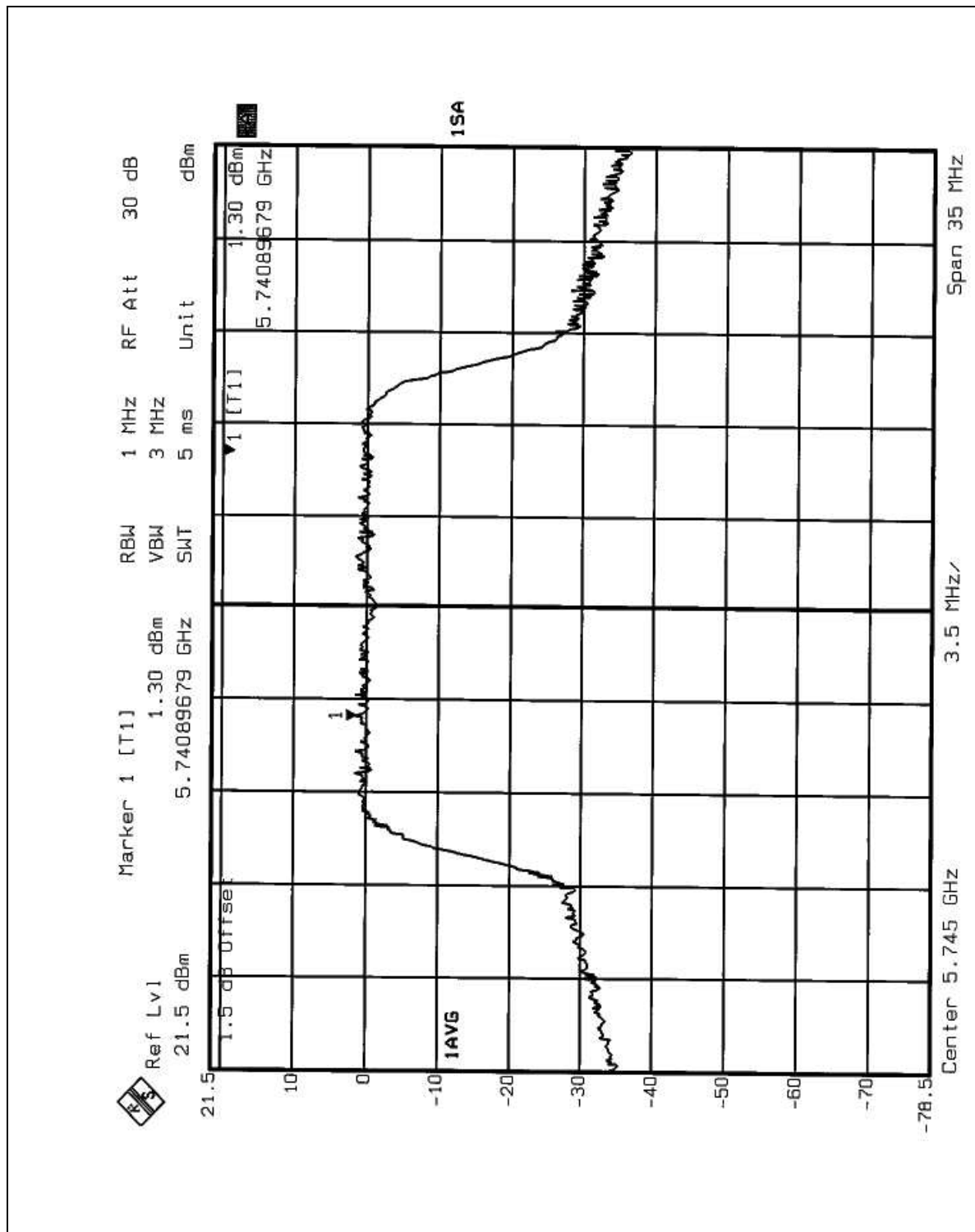
CHANNEL 5



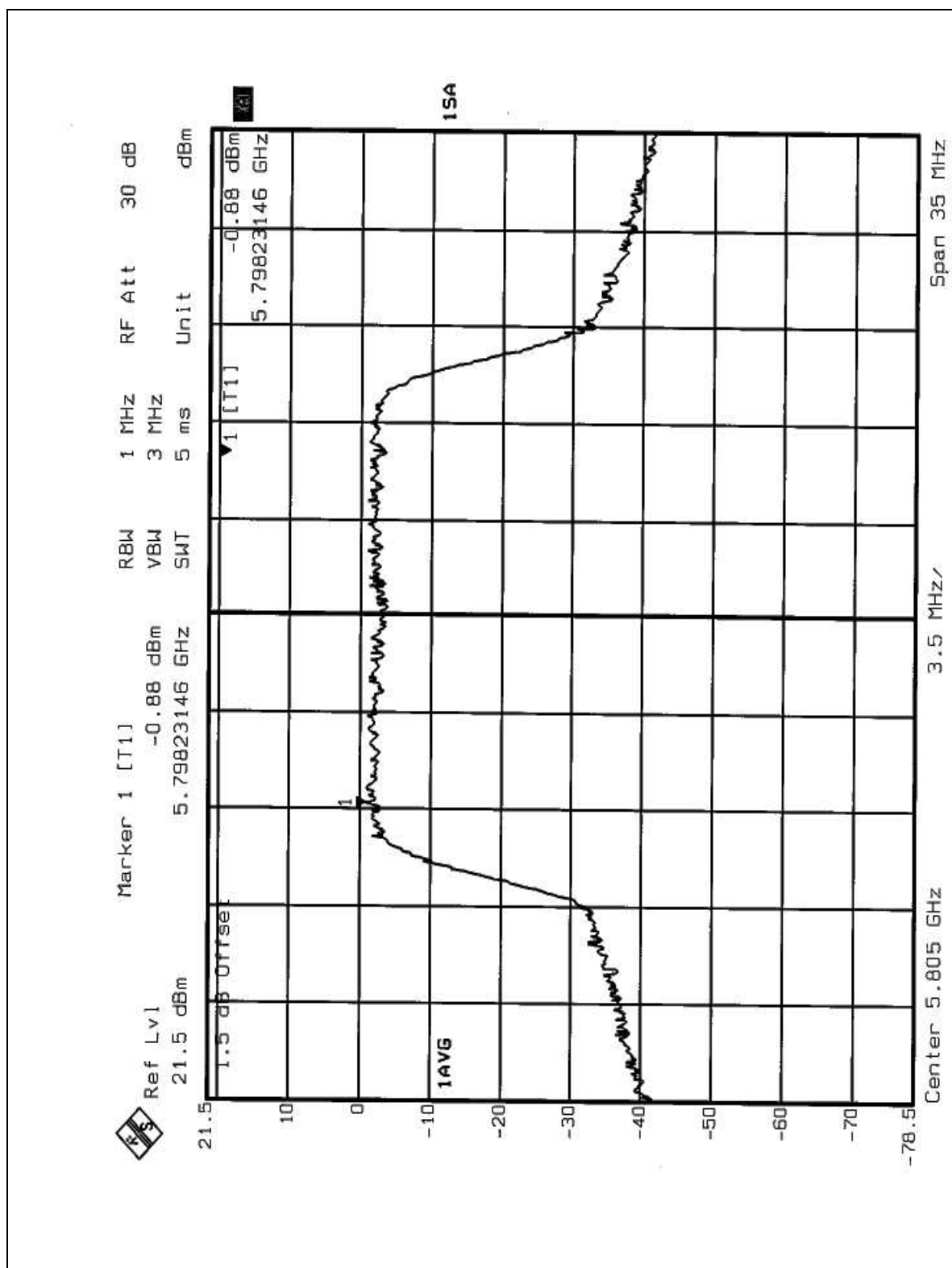
CHANNEL 8



CHANNEL 9



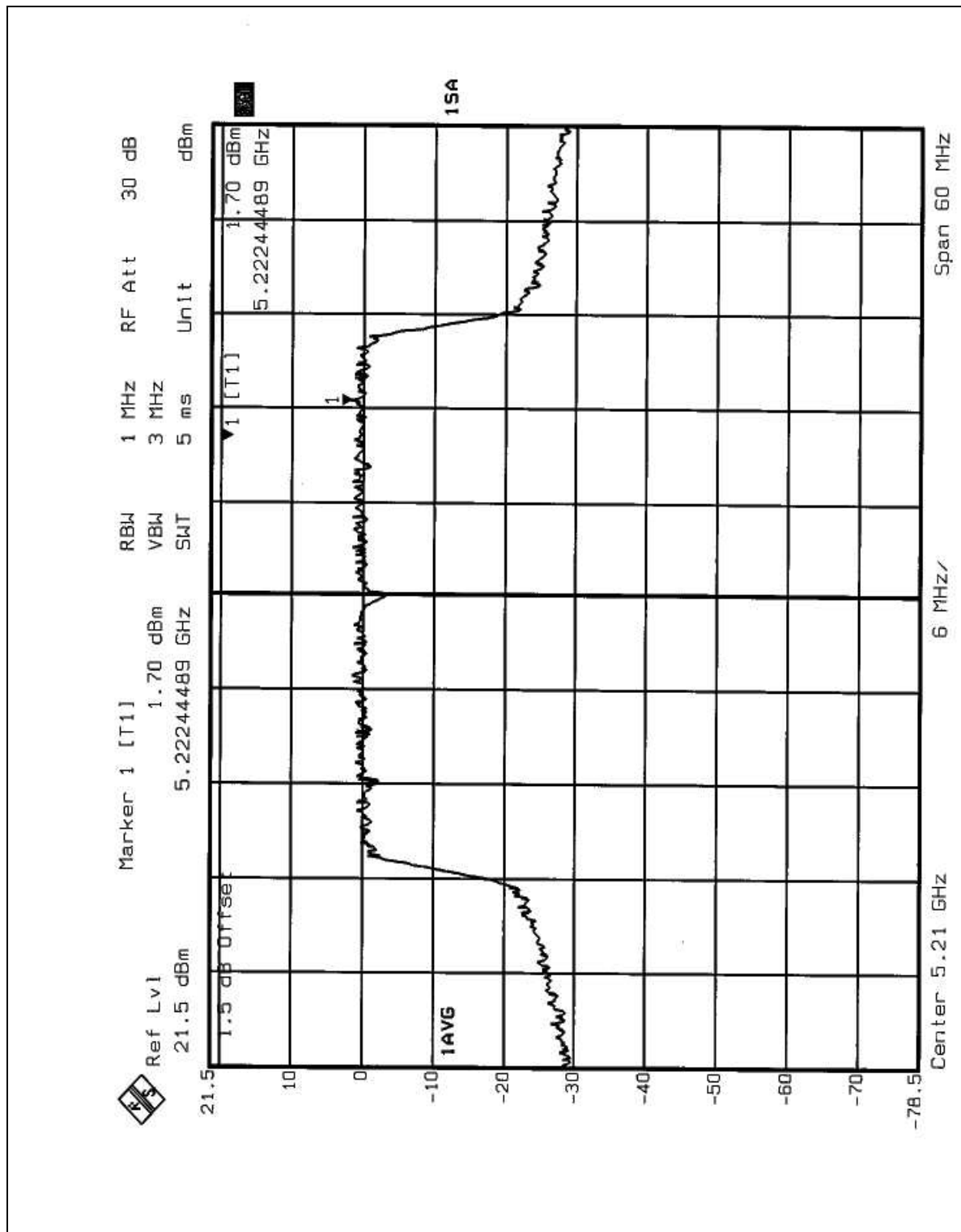
CHANNEL 12



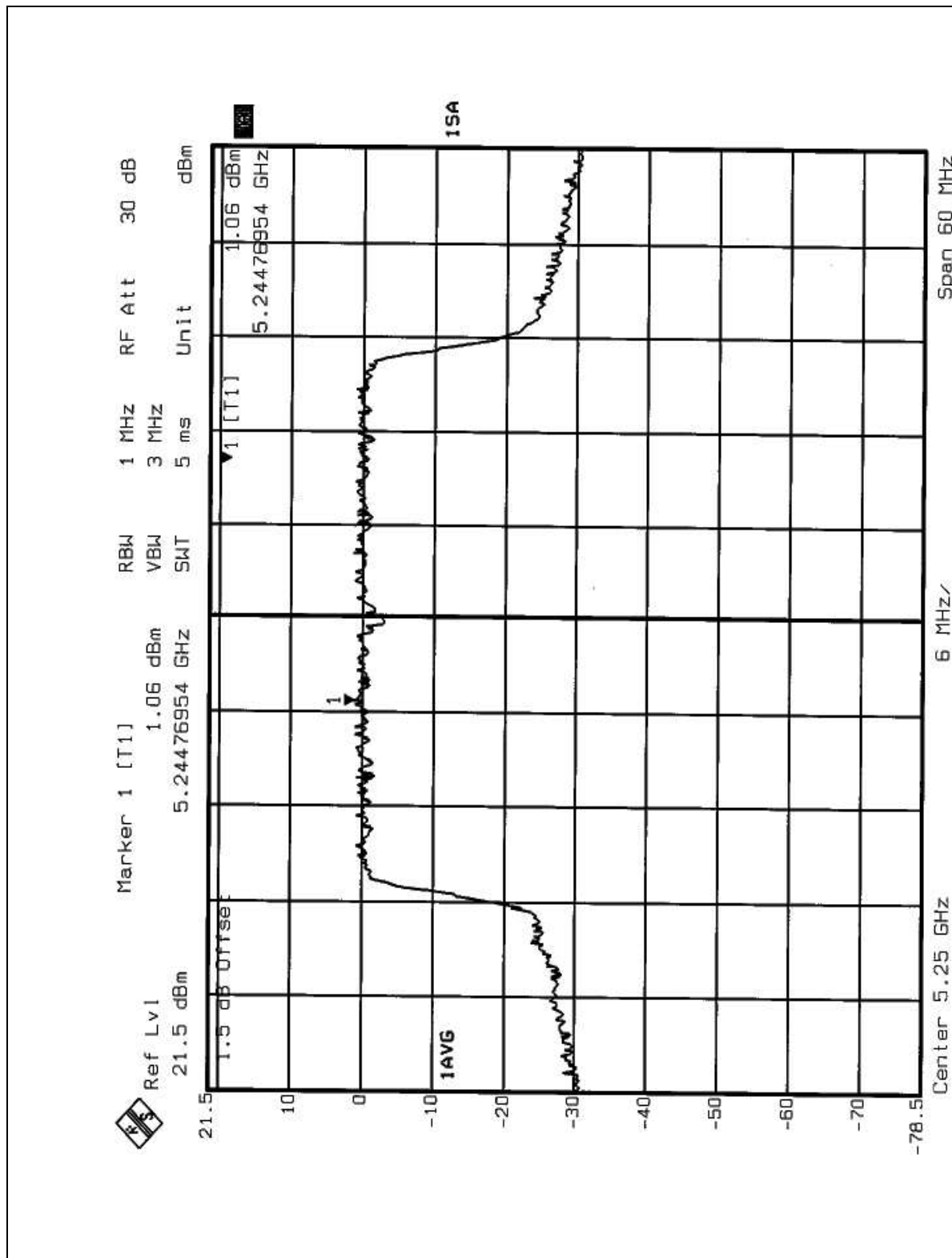
EUT	WLAN Mobile Adapter 2201	MODEL	WLAN Mobile Adapter 2201
MODE	Turbo	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	19deg. C, 68%RH, 1005 hPa	TESTED BY	Ansen Lei

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	5210	1.70	4	PASS
2	5250	1.06	4	PASS
3	5290	1.57	11	PASS
4	5760	-0.64	17	PASS
5	5800	-6.71	17	PASS

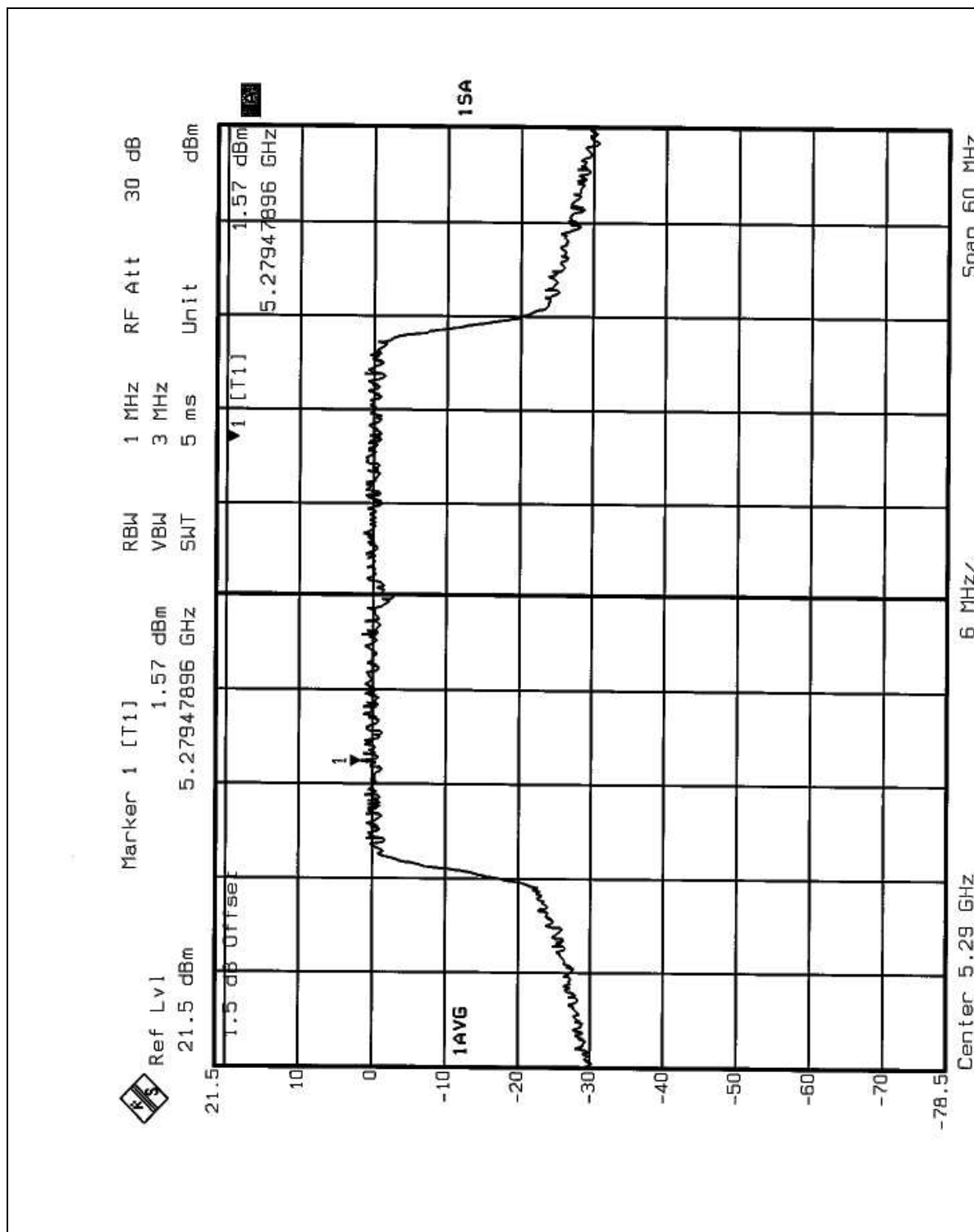
CHANNEL 1



CHANNEL 2

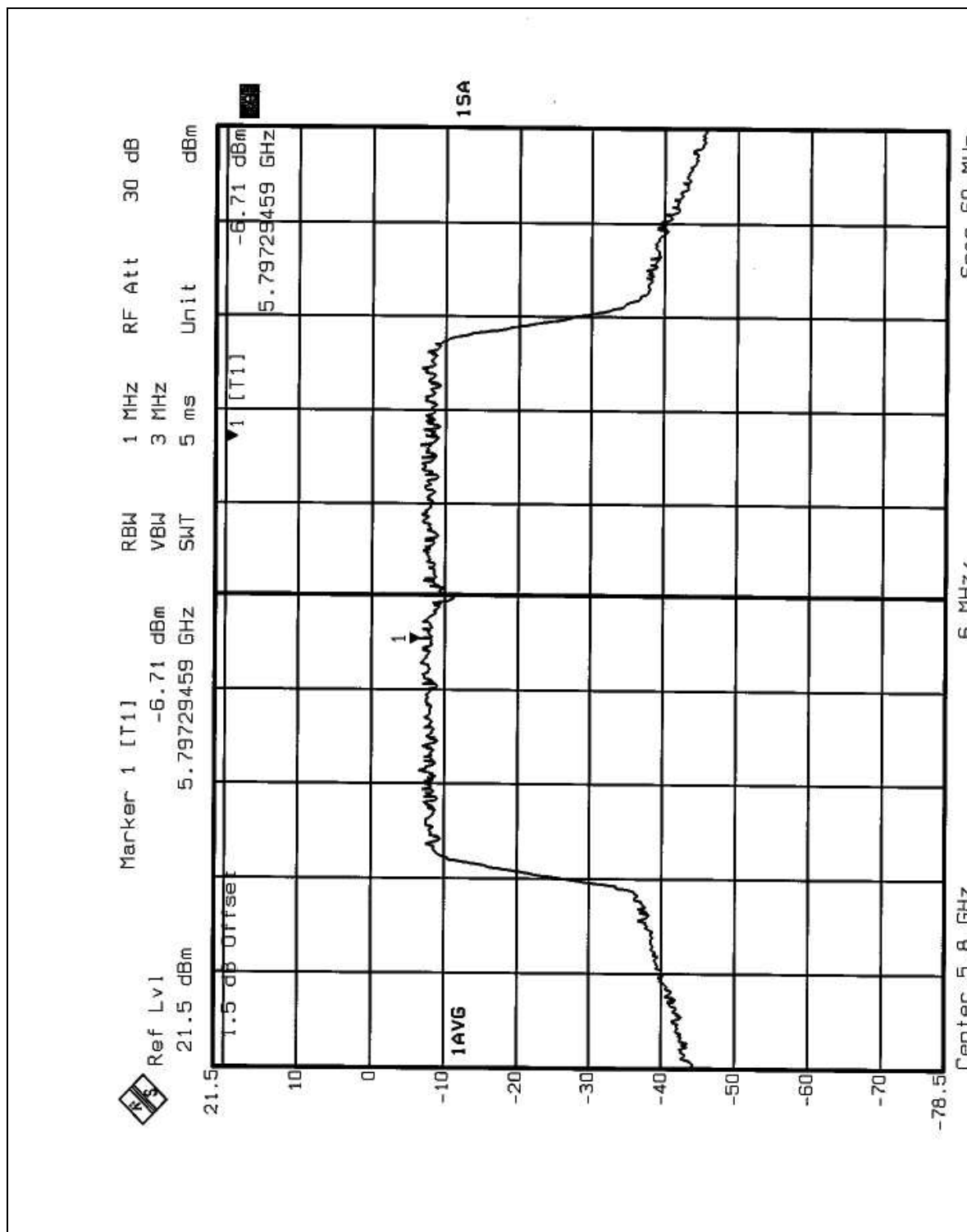


CHANNEL 3



The image shows a spectrum analyzer display with a grid. The vertical axis (Y-axis) represents power in dBm, ranging from -78.5 to 21.5. The horizontal axis (X-axis) represents frequency in GHz, with a center frequency of 5.76 GHz and a span of 60 MHz. A signal trace is visible, showing a peak at 5.76450902 GHz with a power level of -0.64 dBm. The trace is labeled '1' and '1AVG'. The display also shows various settings: RBW (Resolution Bandwidth) is 1 MHz, VBW (Video Bandwidth) is 3 MHz, and SMT (Spectrum Measurement Type) is 5 ms. The unit is dBm. The display is titled 'Marker 1 [T1]' and 'Ref Lvl 21.5 dBm'. The center frequency is 5.76 GHz and the span is 60 MHz.

CHANNEL 5



5.6 FREQUENCY STABILITY

5.6.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

The frequency tolerance of the carrier signal shall be maintained within +/- 0.02% of the operating frequency over a temperature variation of -30 degrees to 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.

5.6.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
ANRITSU SPECTRUM ANALYZER	MS2667C	M10281	Mar. 15, 2003
WIT STANDARD TEMPERATURE AND HUMIDITY CHAMBER	TH-4S-C	W901030	Jun. 24, 2003

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

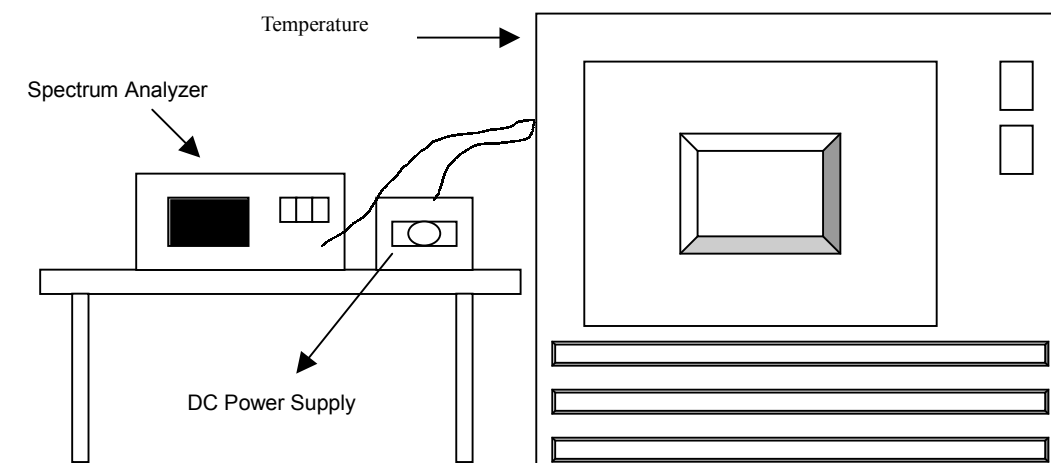
5.6.3 TEST PROCEDURE

1. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
2. Turn the EUT on and couple its output to a spectrum analyzer.
3. Turn the EUT off and set the chamber to the highest temperature specified.
4. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
5. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
6. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

5.6.4 DEVIATION FROM TEST STANDARD

No deviation

5.6.5 TEST SETUP



5.6.6 EUT OPERATING CONDITION

Same as Item 4.1.6

5.6.7 TEST RESULTS

Operating frequency: 5180MHz				Limit : $\pm 0.02\%$			
Temp. (°C)	Power supply (VDC)	2 minute		5 minute		10 minute	
		(MHz)	(%)	(MHz)	(%)	(MHz)	(%)
50	126.5	5179.9808	-0.0003707	5179.9815	-0.0003571	5179.9812	-0.0003629
	110.0	5179.9800	-0.0003861	5179.9817	-0.0003533	5179.9808	-0.0003707
	93.5	5179.9819	-0.0003494	5179.9824	-0.0003398	5179.9815	-0.0003571
40	126.5	5179.9808	-0.0003707	5179.9821	-0.0003456	5179.9827	-0.0003340
	110.0	5179.9817	-0.0003533	5179.9825	-0.0003378	5179.9833	-0.0003224
	93.5	5179.9823	-0.0003417	5179.9833	-0.0003224	5179.9835	-0.0003185
30	126.5	5179.9721	-0.0005386	5179.9741	-0.0005000	5179.9722	-0.0005367
	110.0	5179.9725	-0.0005309	5179.9845	-0.0002992	5179.9717	-0.0005463
	93.5	5179.9729	-0.0005232	5179.9742	-0.0004981	5179.9733	-0.0005154
20	126.5	5179.9730	-0.0005212	5179.9742	-0.0004981	5179.9725	-0.0005309
	110.0	5179.9733	-0.0005154	5179.9750	-0.0004826	5179.9825	-0.0003378
	93.5	5179.9731	-0.0005193	5179.9751	-0.0004807	5179.9725	-0.0005309
10	126.5	5179.9744	-0.0004942	5179.9740	-0.0005019	5179.9719	-0.0005425
	110.0	5179.9750	-0.0004826	5179.9742	-0.0004981	5179.9721	-0.0005386
	93.5	5179.9752	-0.0004788	5179.9745	-0.0004923	5179.9723	-0.0005347
0	126.5	5179.9802	-0.0003822	5179.9812	-0.0003629	5179.9791	-0.0004035
	110.0	5179.9800	-0.0003861	5179.9817	-0.0003533	5179.9792	-0.0004015
	93.5	5179.9794	-0.0003977	5179.9819	-0.0003494	5179.9798	-0.0003900
-10	126.5	5179.9841	-0.0003069	5179.9821	-0.0003456	5179.9831	-0.0003263
	110.0	5179.9842	-0.0003050	5179.9825	-0.0003378	5179.9834	-0.0003205
	93.5	5179.9846	-0.0002973	5179.9827	-0.0003340	5179.9834	-0.0003205
-20	126.5	5179.9830	-0.0003282	5179.9816	-0.0003552	5179.9823	-0.0003417
	110.0	5179.9833	-0.0003224	5179.9817	-0.0003533	5179.9825	-0.0003378
	93.5	5179.9835	-0.0003185	5179.9820	-0.0003475	5179.9829	-0.0003301
-30	126.5	5179.9821	-0.0003456	5179.9810	-0.0003668	5179.9821	-0.0003456
	110.0	5179.9825	-0.0003378	5179.9808	-0.0003707	5179.9817	-0.0003533
	93.5	5179.9828	-0.0003320	5179.9814	-0.0003591	5179.9820	-0.0003475

5.7 BAND EDGES MEASUREMENT

5.7.1 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
SPECTRUM ANALYZER	FSEK30	100049	July 24, 2003

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

5.7.2 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low loss cable. Set both RBW and VBW of spectrum analyzer to 1MHz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded.

5.7.3 EUT OPERATING CONDITION

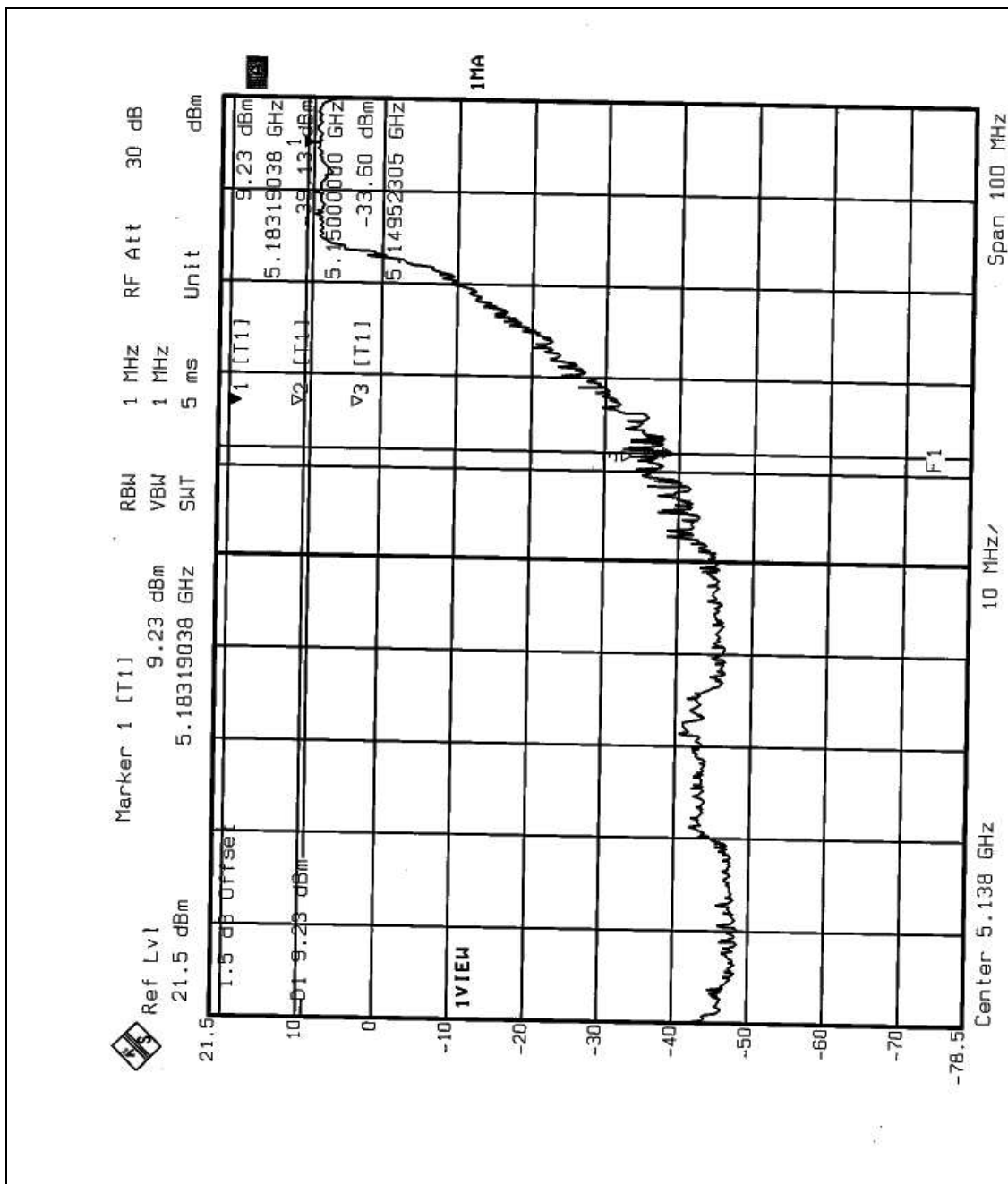
The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

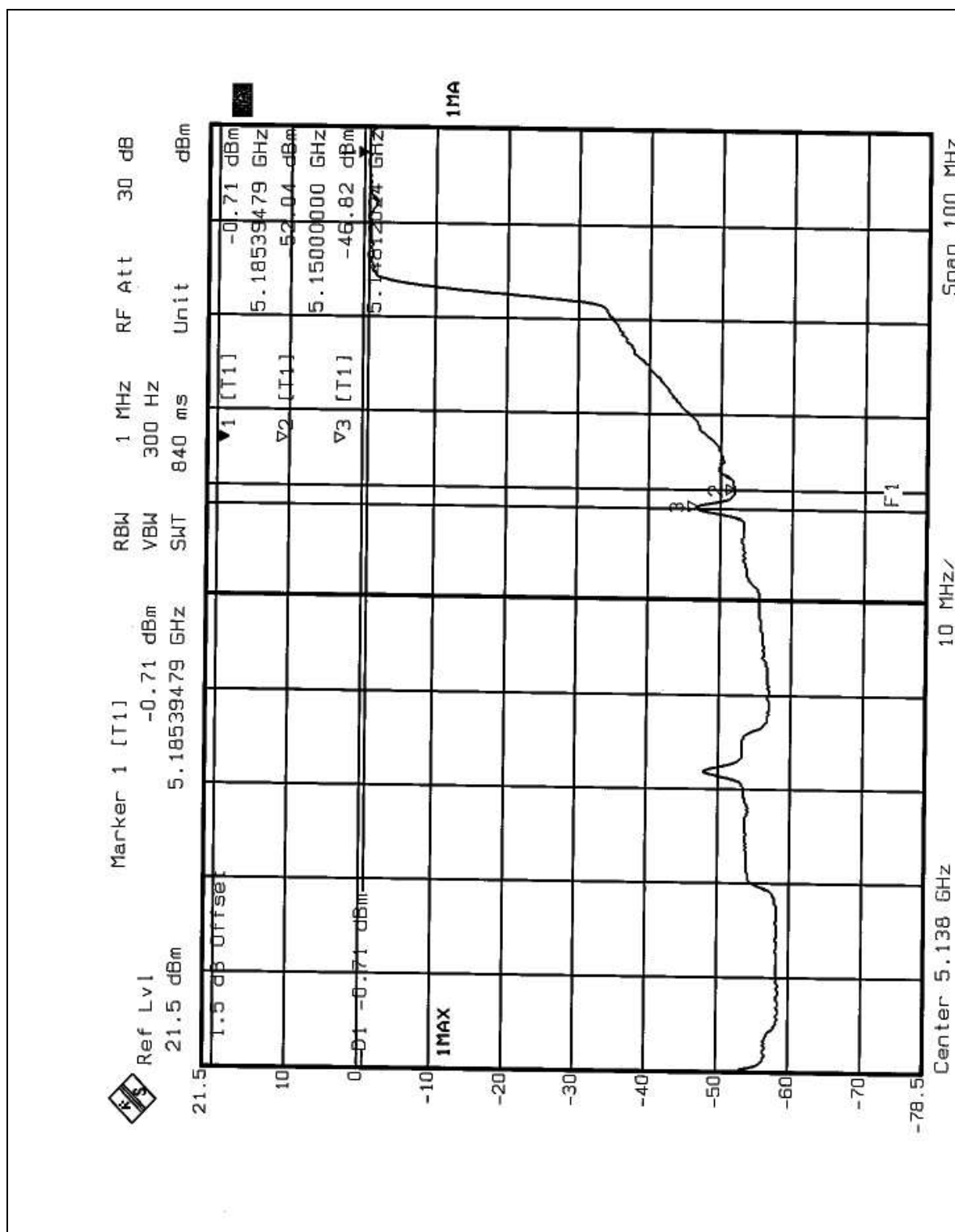
5.7.4 TEST RESULTS

For signals in the restricted bands above and below the 5.15 to 5.35 GHz allocated band a measurement was made of the amplitude of the spurious emissions with respect to the intentional signals. The relative amplitude, in dBc, was applied to the average and peak field strength of the intentional signal made on the OATS to calculate the field strength of the unintentional signals.

The spectrum plots (Peak RBW=VBW=1MHz; Average RBW=1MHz, VBW=300Hz) are attached on the following 8 pages.

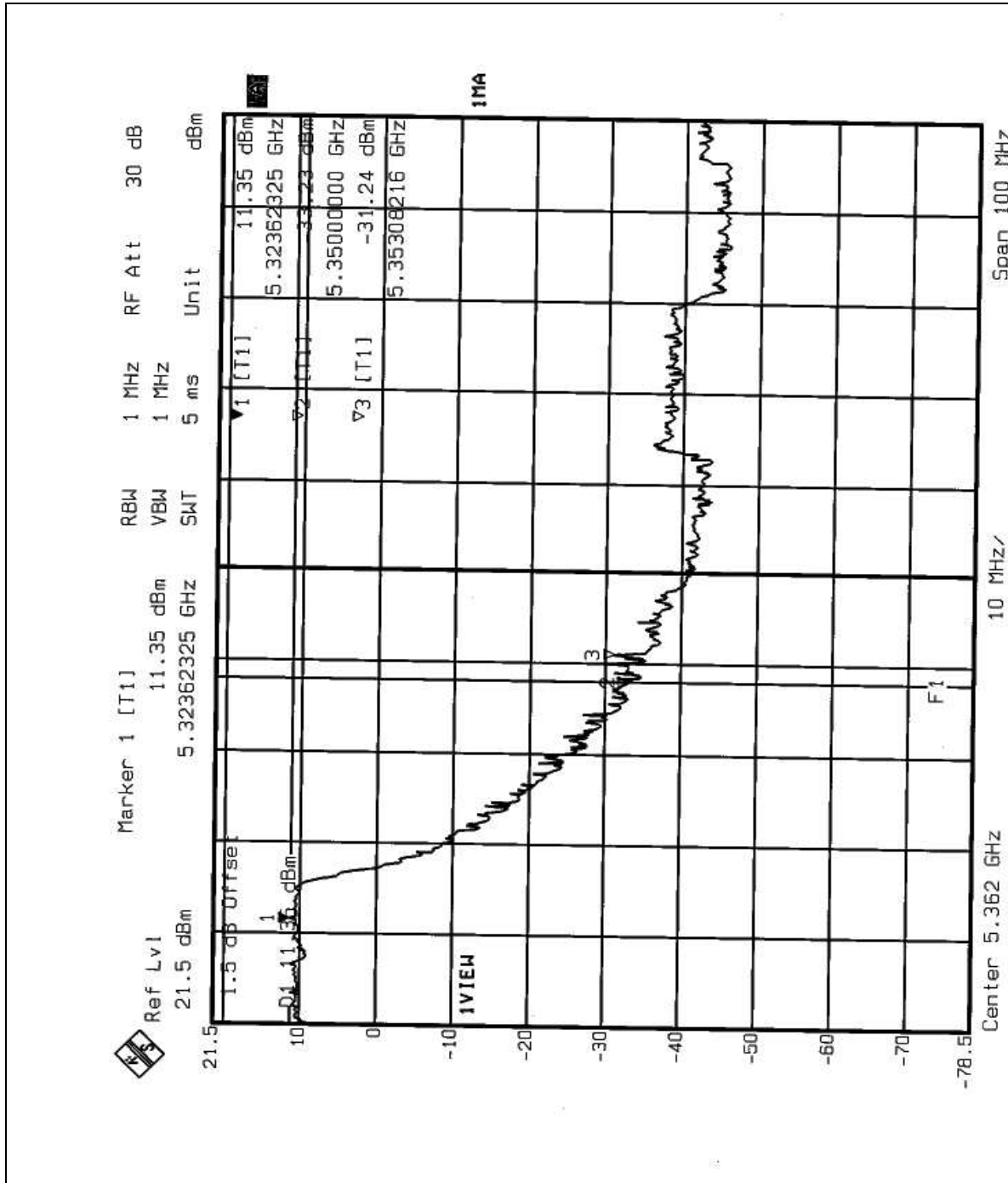
The band edge emission plot on the following 2 pages shows 42.83dBc (Peak) / 46.11dBc (Average) between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 1 (normal mode) is 99.80dBuV/m, so the maximum field strength in restrict band is 99.80-46.11=53.69dBuV/m which is under 54dBuV/m limit.

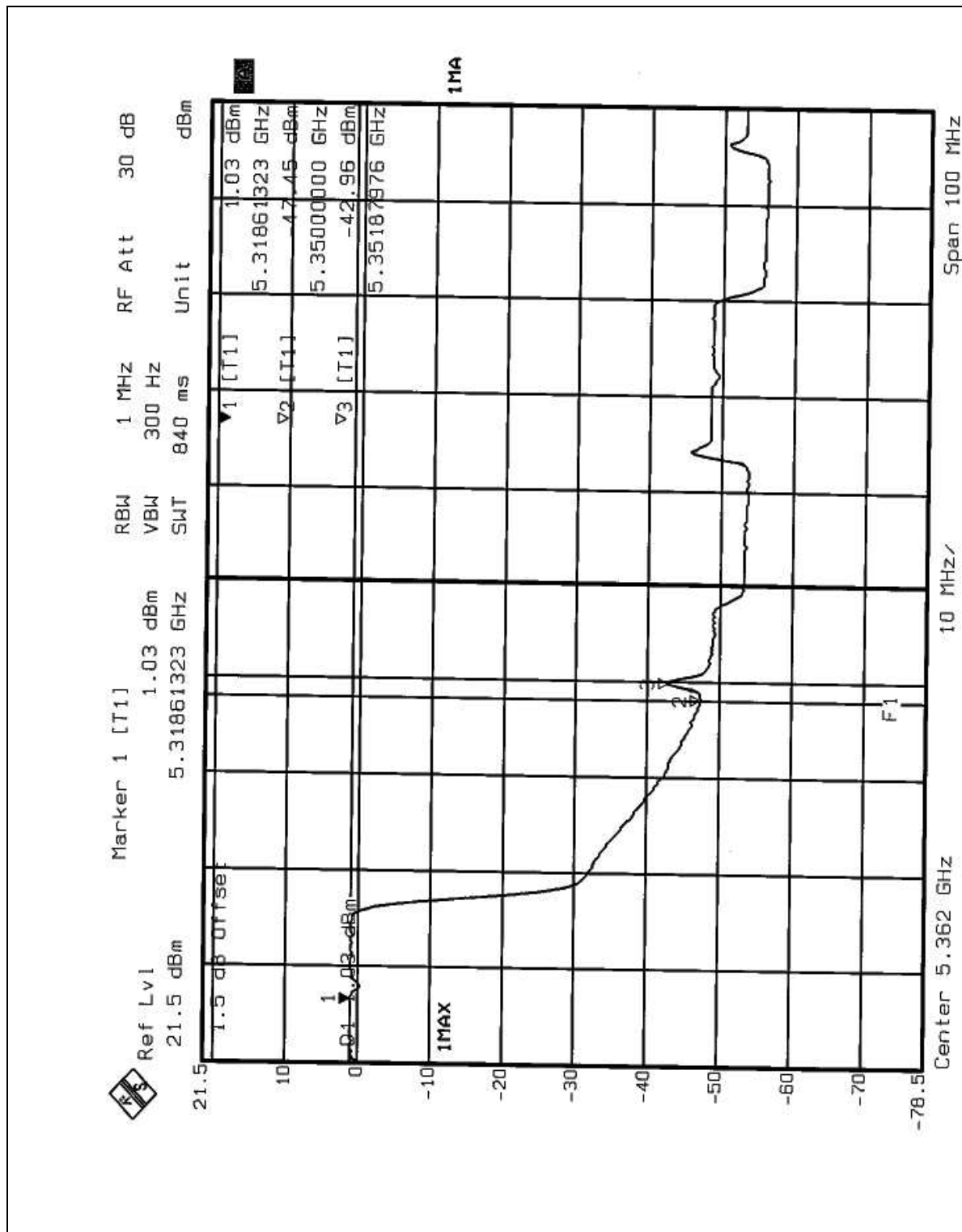




Normal Mode: Channel 8 (5320 MHz)

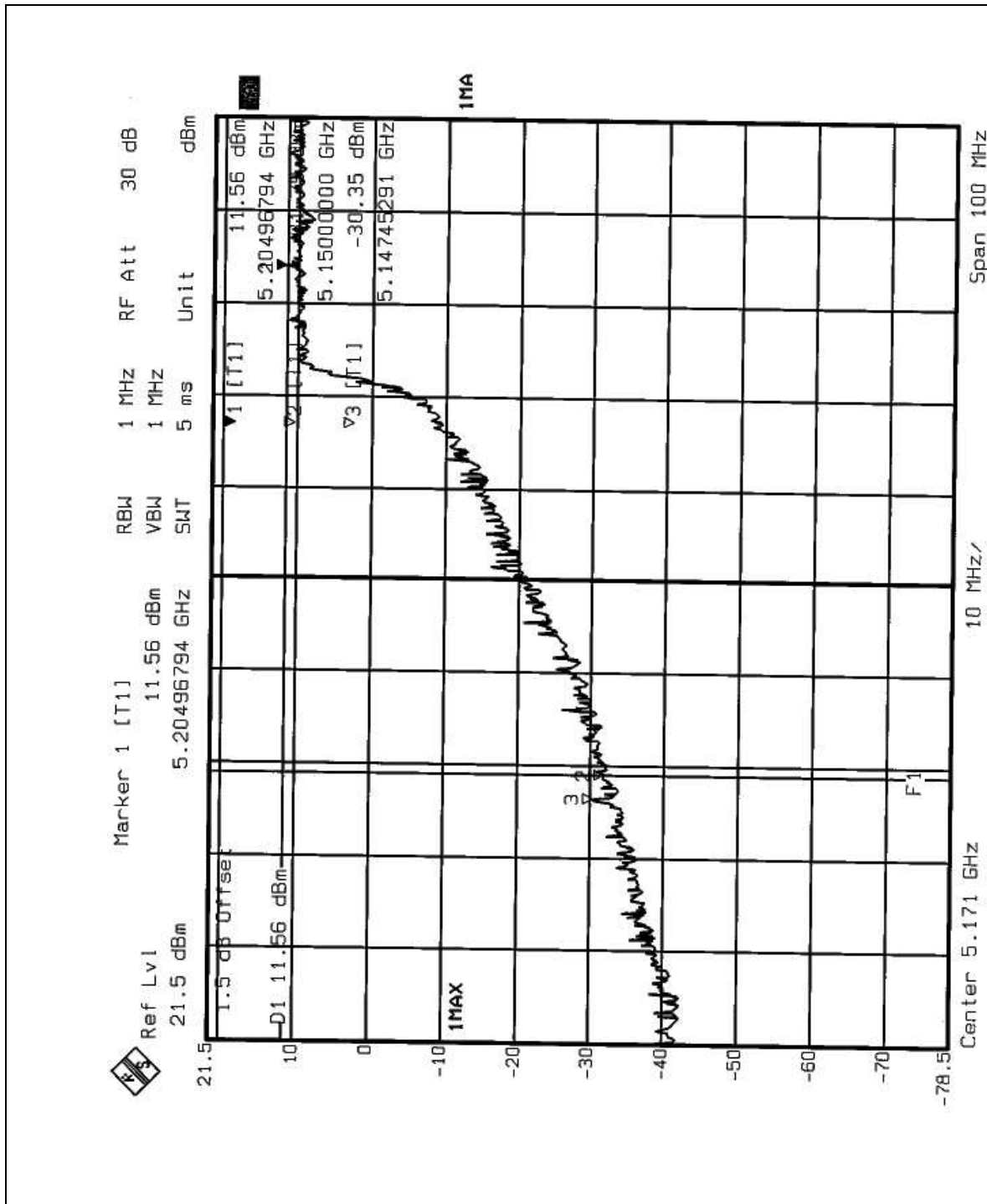
The band edge emission plot on the following 2 pages shows 42.59dBc (Peak) / 43.99dBc (Average) between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 8 (normal mode) is 97.50dBuV/m, so the maximum field strength in restrict band is $97.50 - 43.99 = 53.51$ dBuV/m which is under 54dBuV/m limit.

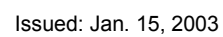




Turbo Mode: Channel 1 (5210 MHz)

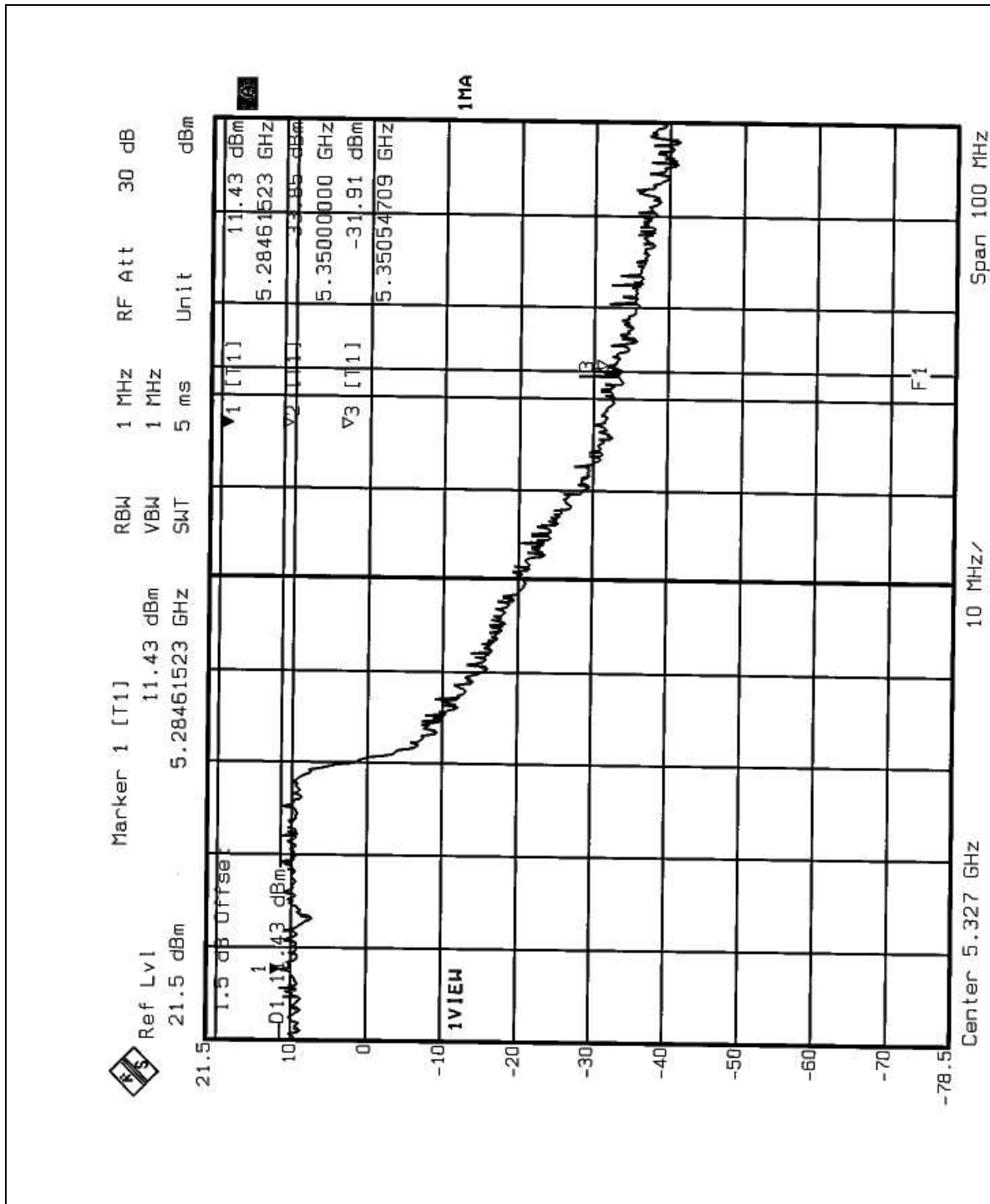
The band edge emission plot on the following 2 pages shows 41.91dBc (Peak) / 45.10dBc (Average) between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 1 (normal mode) is 97.60dBuV/m, so the maximum field strength in restrict band is $97.60 - 45.10 = 52.50$ dBuV/m which is under 54dBuV/m limit.

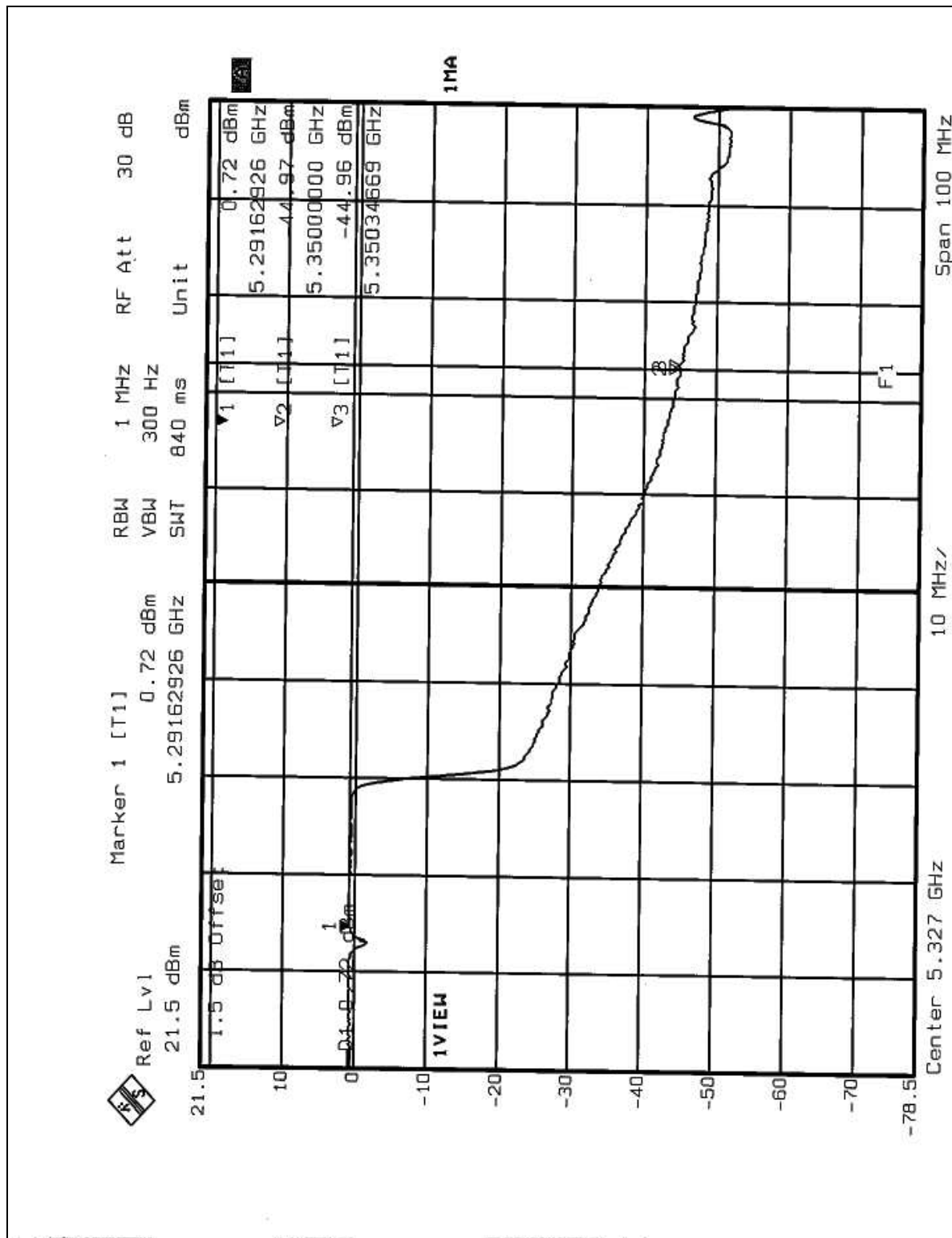




Turbo Mode: Channel 3 (5290 MHz)

The band edge emission plot on the following 2 pages shows 43.34dBc (Peak) / 45.68dBc (Average) between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 3 (normal mode) is 97.10dBuV/m, so the maximum field strength in restrict band is $97.10 - 45.68 = 51.42$ dBuV/m which is under 54dBuV/m limit.







5.8 ANTENNA REQUIREMENT

5.8.1 STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.407(a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

5.8.2 ANTENNA CONNECTED CONSTRUCTION

The antenna type used in this product is PIFA without antenna connector. The maximum Gain of the antenna is 2dBi.

6. PHOTOGRAPHS OF THE TEST CONFIGURATION

CONDUCTED EMISSION TEST



RADIATED EMISSION TEST





7. INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., were founded in 1988 to provide our best service in EMC and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025, Guide 25 or EN 45001:

USA	FCC, NVLAP, UL
Germany	TUV Rheinland
Japan	VCCI
New Zealand	MoC
Norway	NEMKO
R.O.C.	BSMI, DGT, CNLA

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site:

www.adt.com.tw/index.5/phtml.

If you have any comments, please feel free to contact us at the following:

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Fax: 886-2-26052943

Hsin Chu EMC Lab:

Tel: 886-35-935343

Fax: 886-35-935342

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Fax: 886-2-26093184

Lin Kou RF&Telecom Lab

Tel: 886-3-3270910

Fax: 886-3-3270892

Email: service@mail.adt.com.tw

Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also.