



### 5.3 PEAK TRANSMIT POWER MEASUREMENT

#### 5.3.1 LIMITS OF PEAK TRANSMIT POWER MEASUREMENT

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

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

#### 5.3.2 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.

### 5.3.3 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 100kHz.
4. Using the spectrum analyzer's band 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

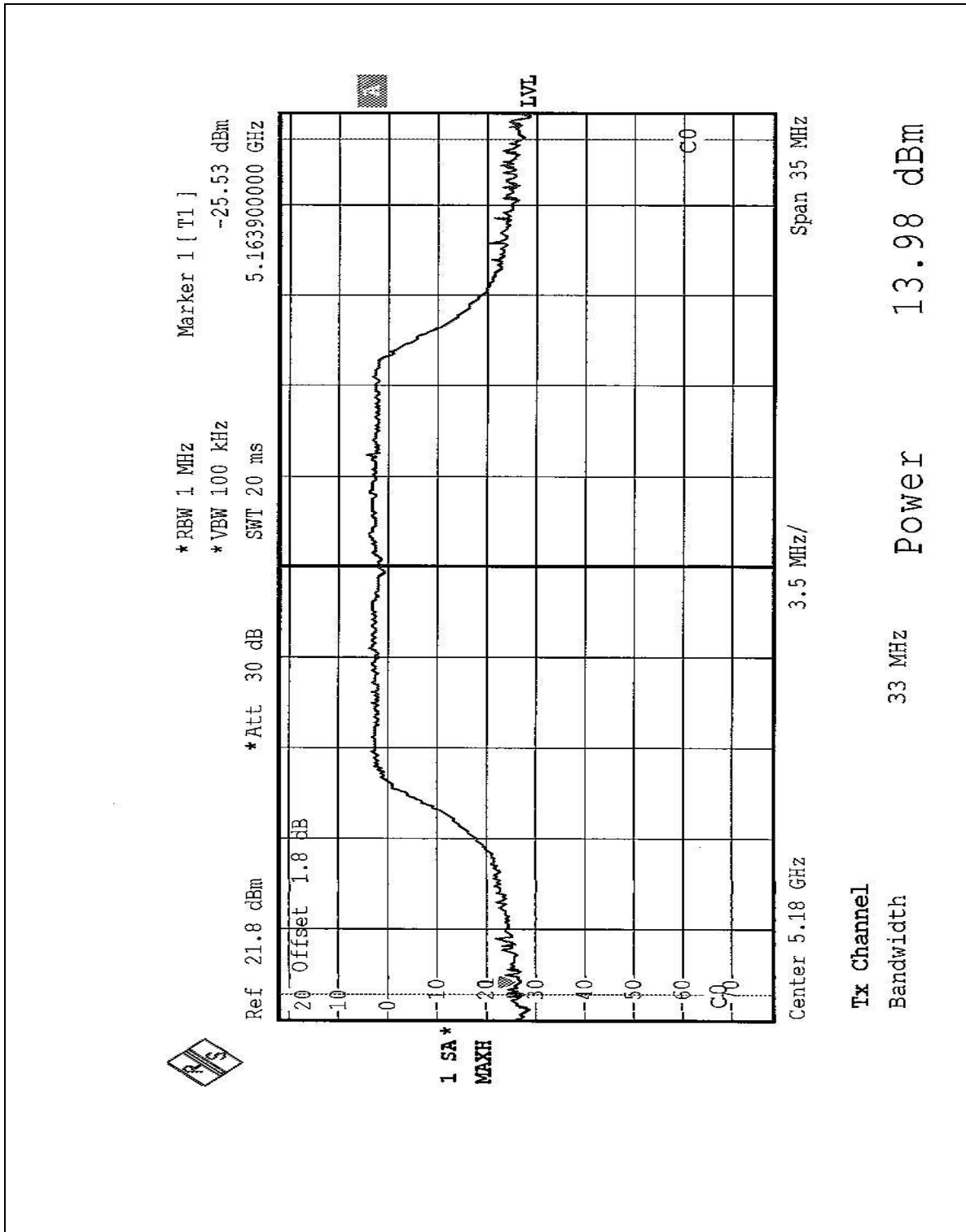
<b>EUT</b>	Dual-Band Wireless A+G Broadband Router	<b>MODEL</b>	WRT55AG
<b>MODE</b>	Normal	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz
<b>ENVIRONMENTAL CONDITIONS</b>	24deg. C, 63%RH, 1005hPa	<b>TESTED BY</b>	Steven Lu

<b>CHANNEL</b>	<b>CHANNEL FREQUENCY (MHz)</b>	<b>PEAK POWER OUTPUT (dBm)</b>	<b>PEAK POWER LIMIT (dBm)</b>	<b>26dBc Occupied Bandwidth (MHz)</b>	<b>PASS/FAIL</b>
1	5180	13.98	17.00	33.12	PASS
4	5240	13.03	17.00	33.12	PASS
5	5260	15.22	24.00	35.12	PASS
8	5320	13.25	24.00	32.96	PASS

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

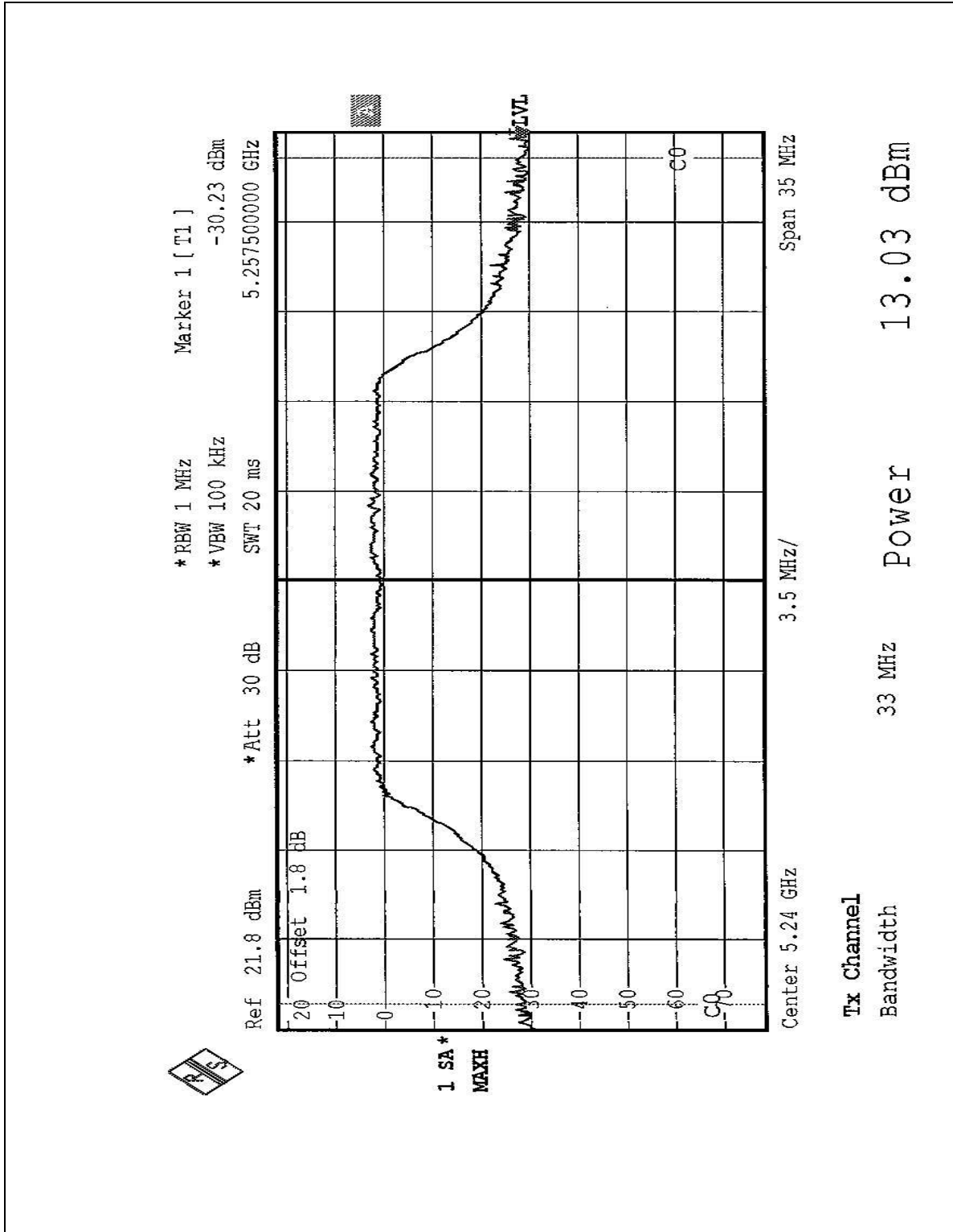


CHANNEL 1



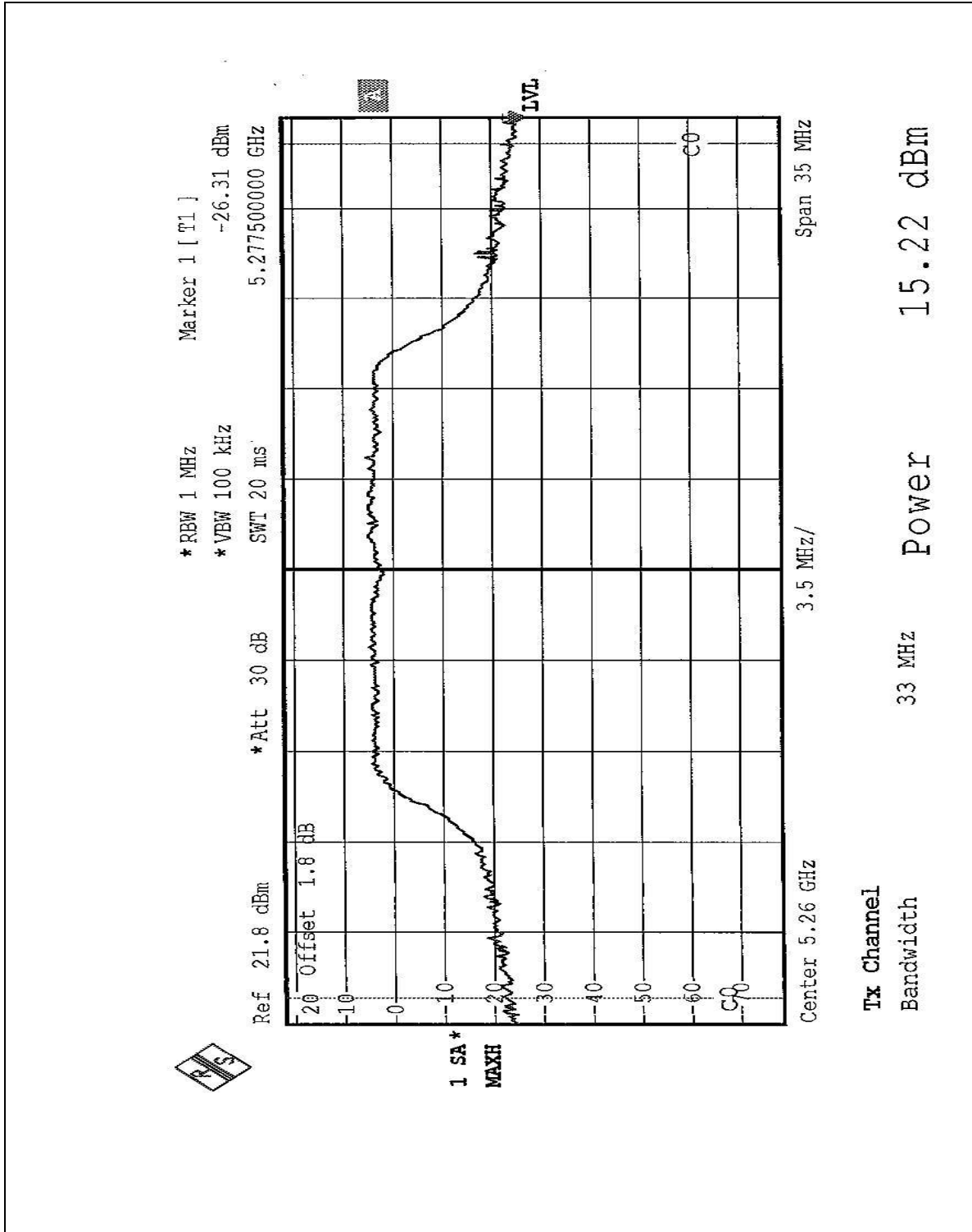


CHANNEL 4



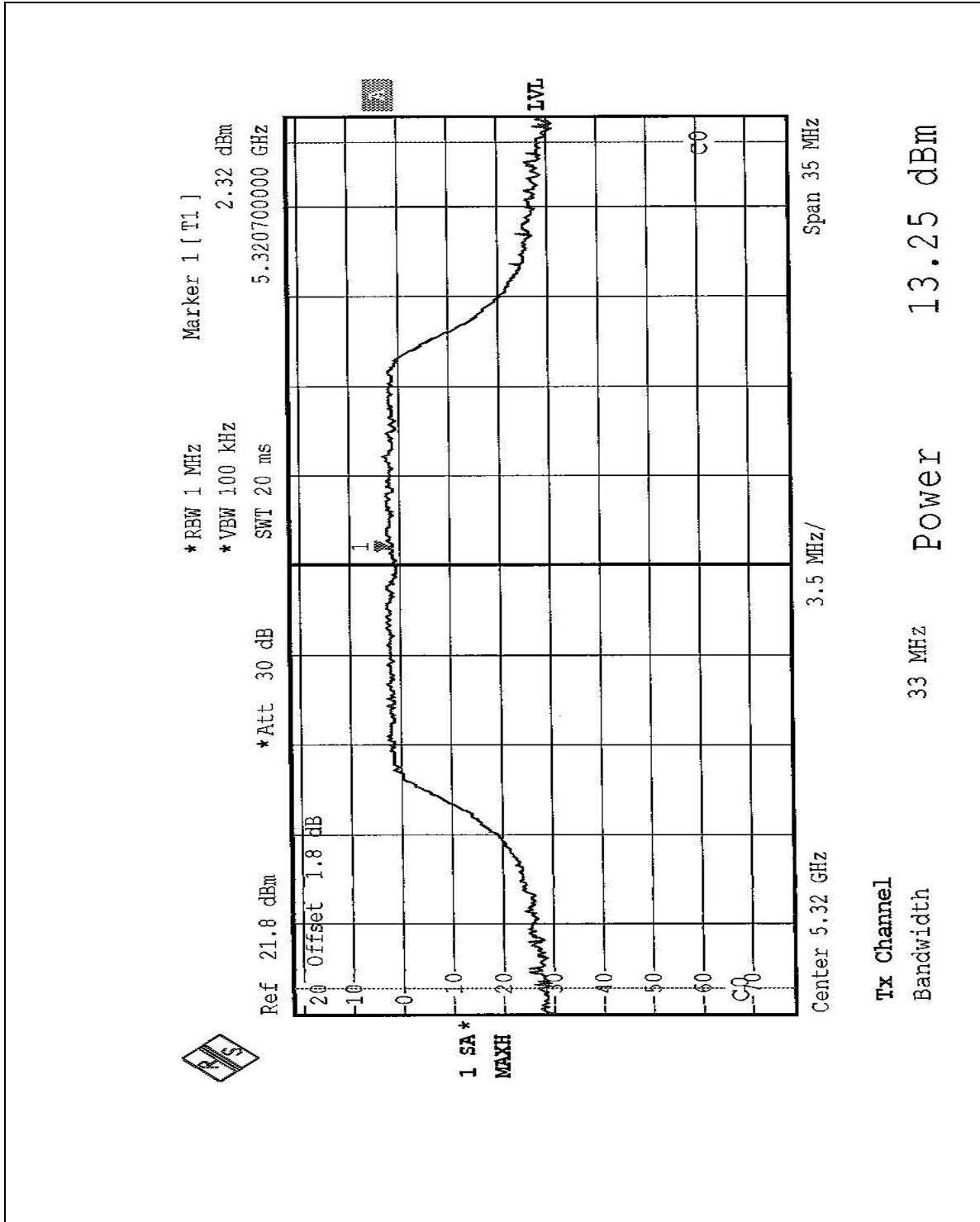


CHANNEL 5



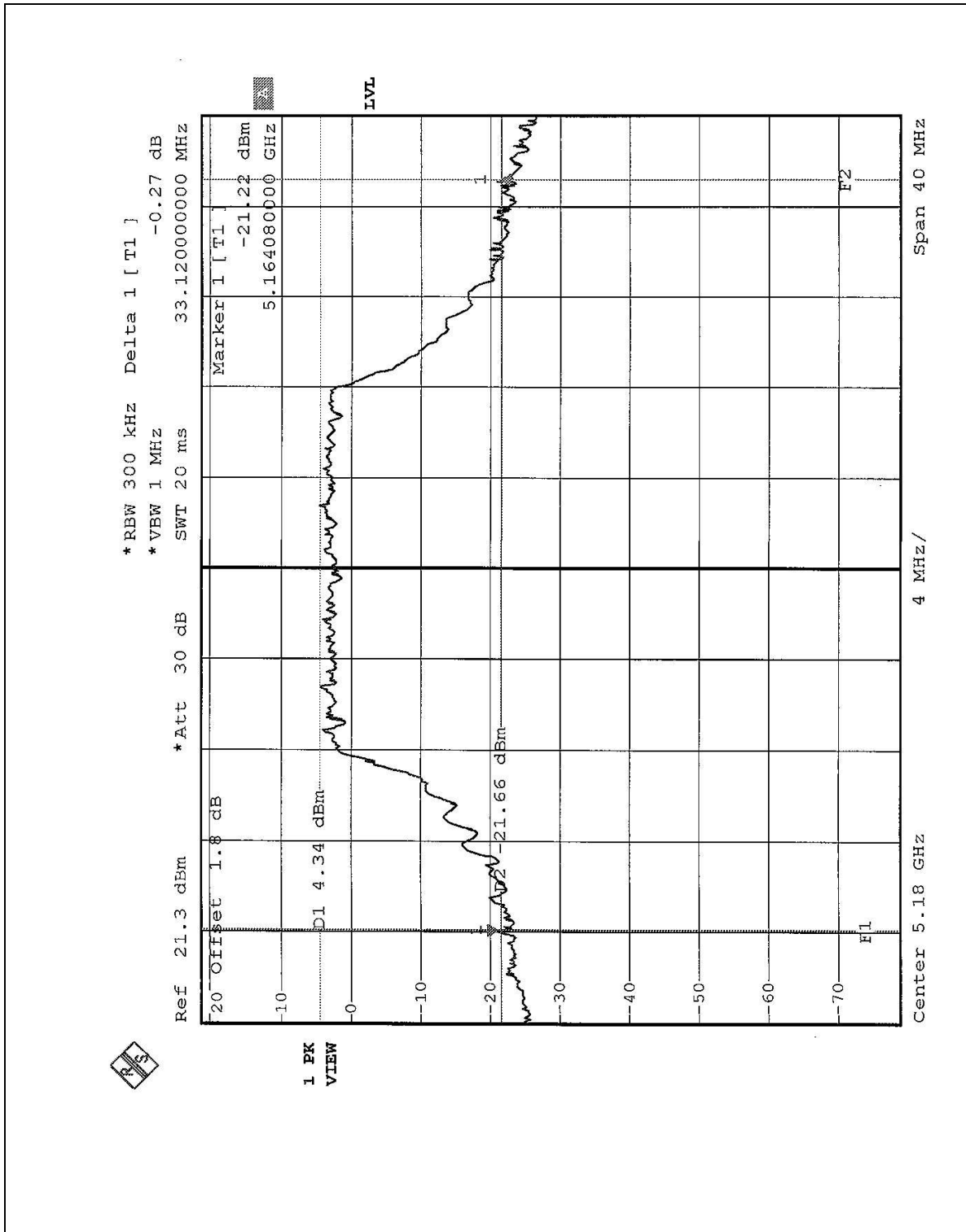


CHANNEL 8





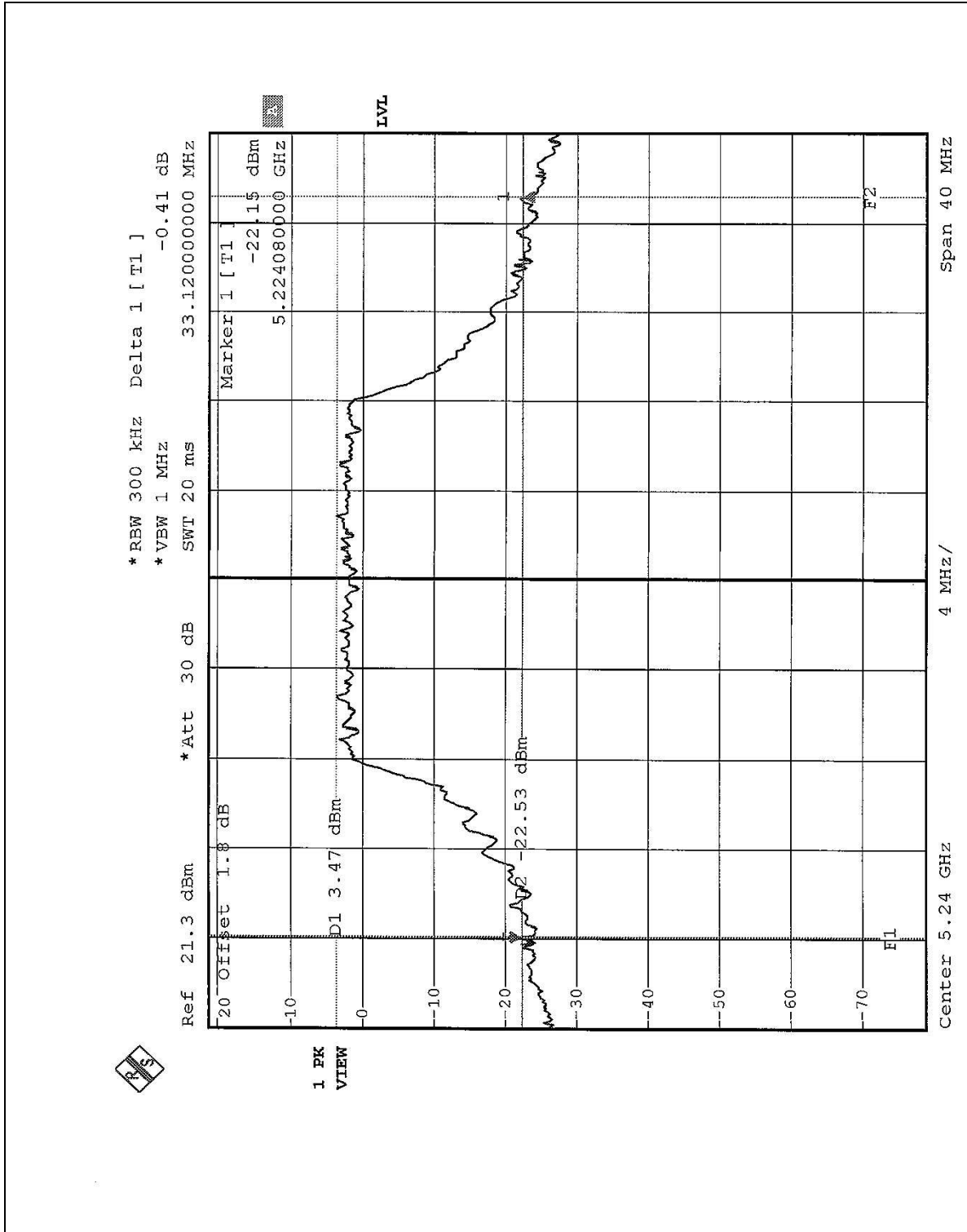
CHANNEL 1





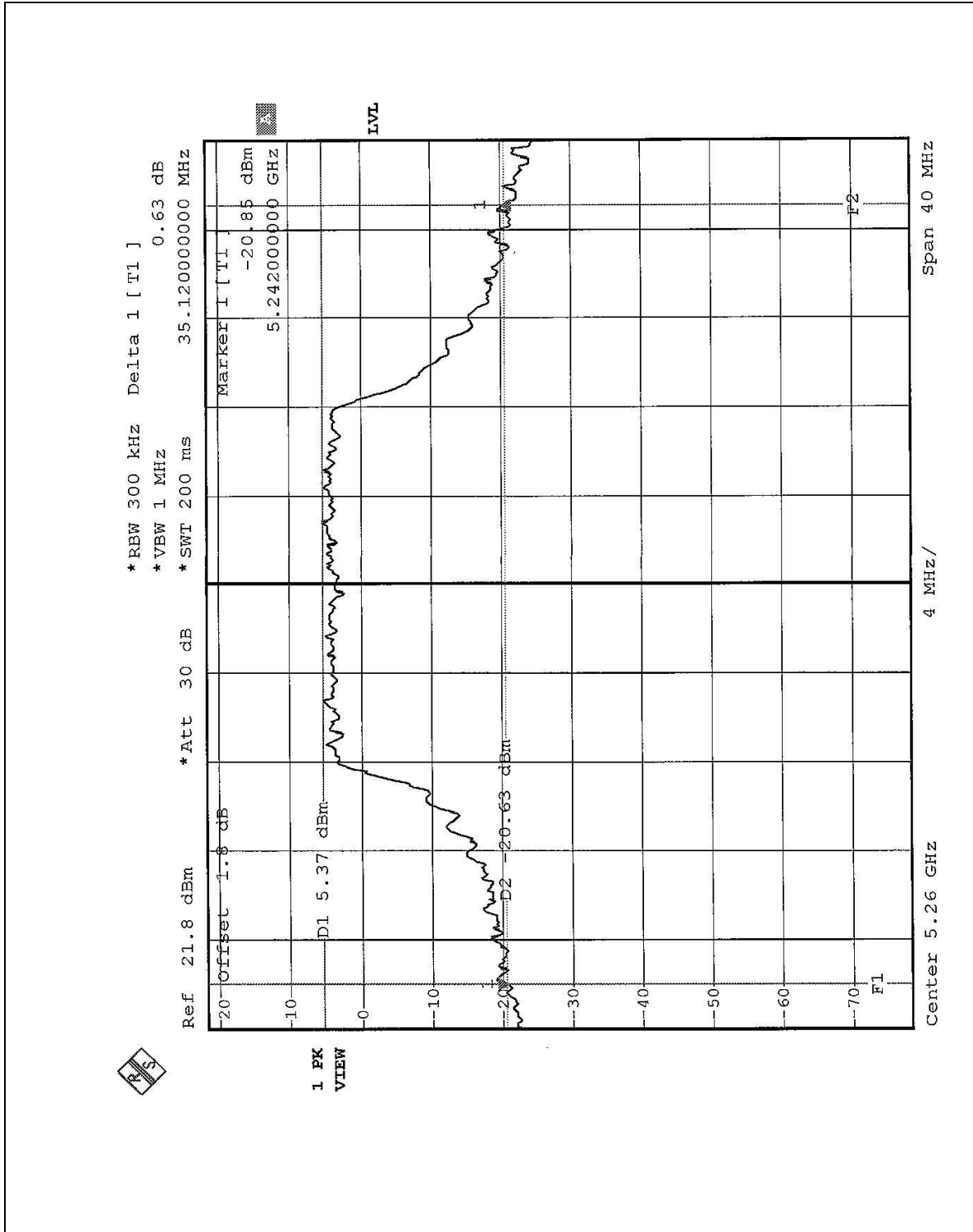


CHANNEL 4



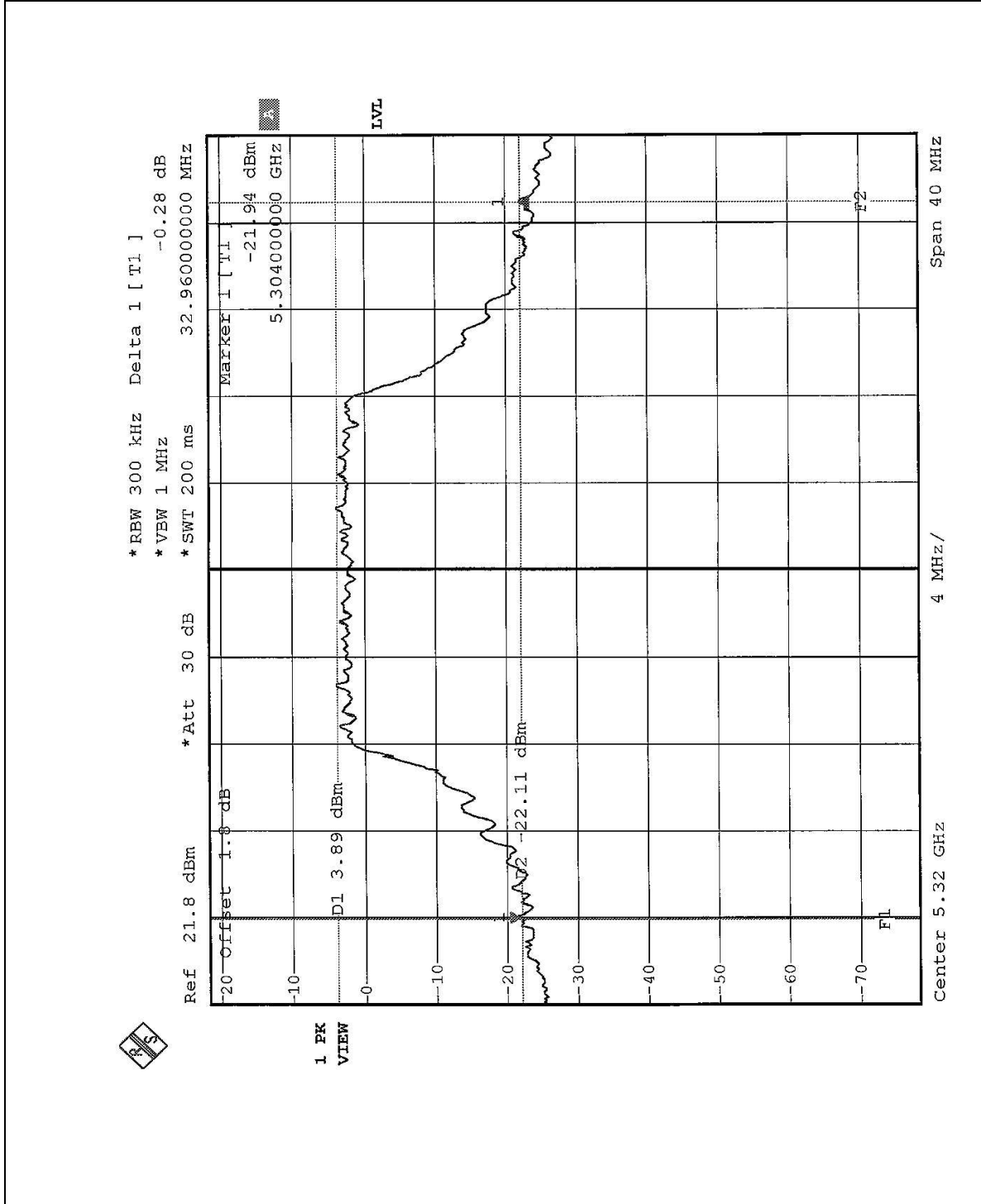


CHANNEL 5





CHANNEL 8





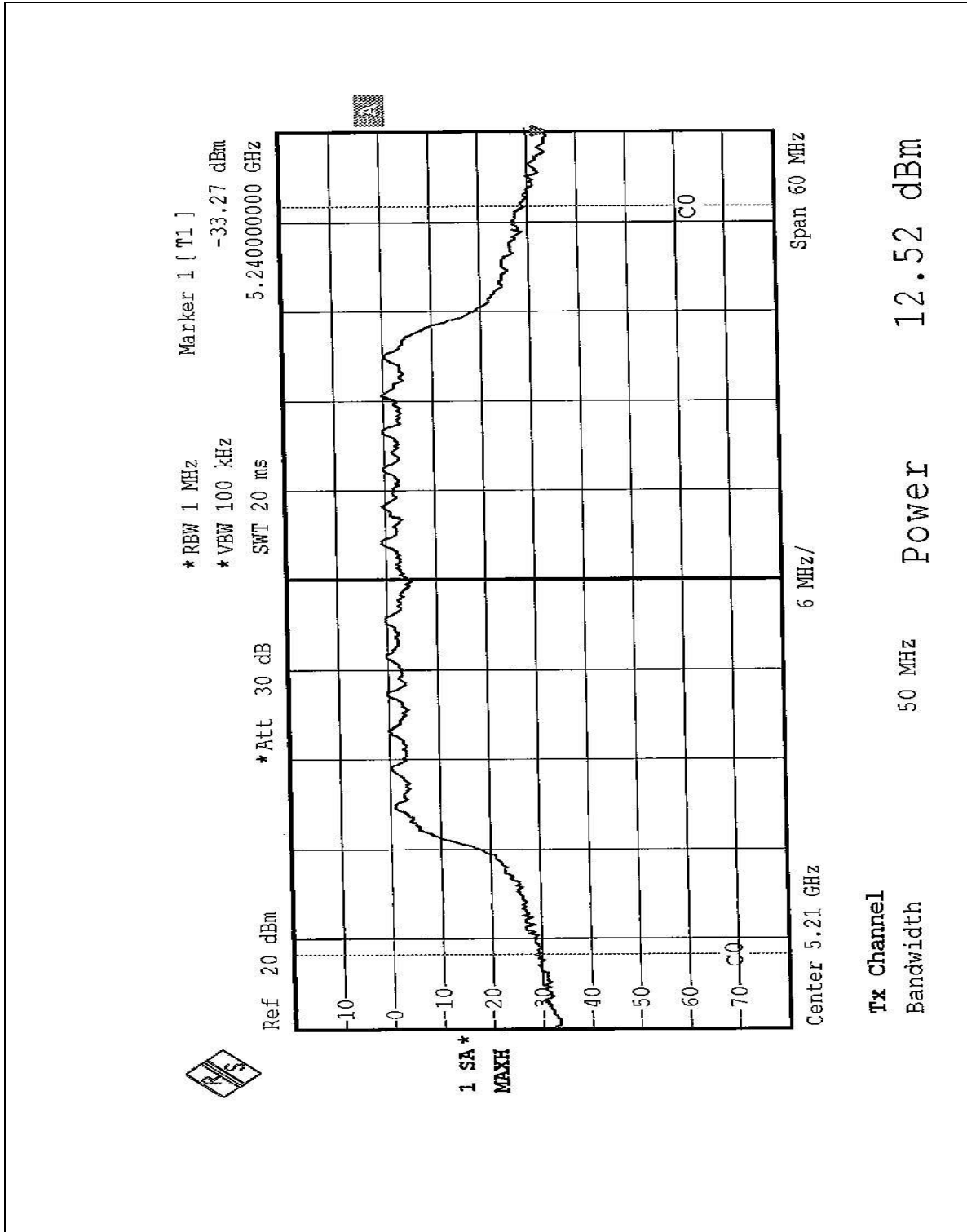
<b>EUT</b>	Dual-Band Wireless A+G Broadband Router	<b>MODEL</b>	WRT55AG
<b>MODE</b>	Turbo	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz
<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 64%RH, 1005hPa	<b>TESTED BY</b>	Steven Lu

<b>CHANNEL</b>	<b>CHANNEL FREQUENCY (MHz)</b>	<b>PEAK POWER OUTPUT (dBm)</b>	<b>PEAK POWER LIMIT (dBm)</b>	<b>26dBc Occupied Bandwidth (MHz)</b>	<b>PASS/FAIL</b>
1	5210	12.52	17.00	49.44	PASS
2	5250	11.80	17.00	49.32	PASS
3	5290	10.96	24.00	48.00	PASS

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

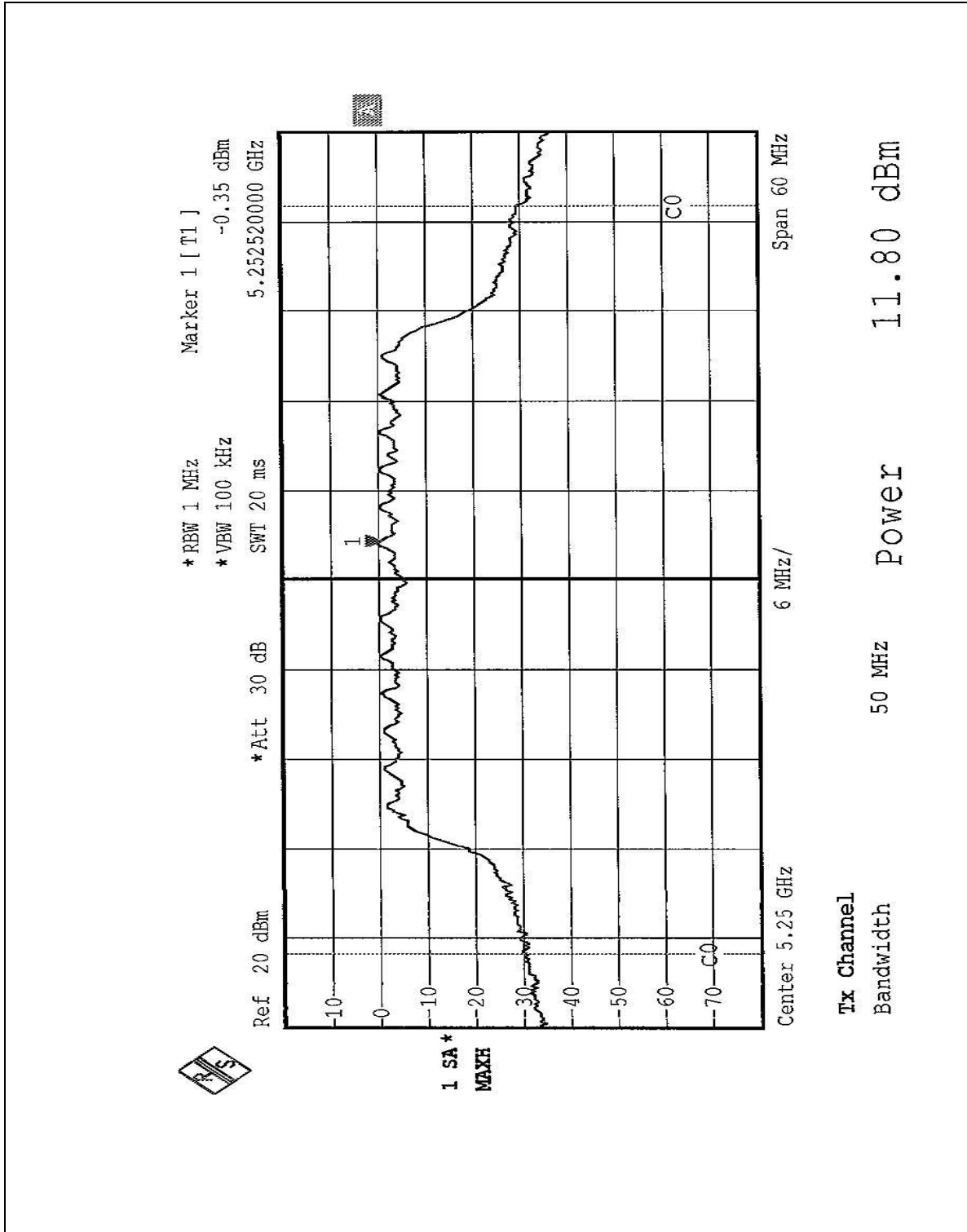


CHANNEL 1



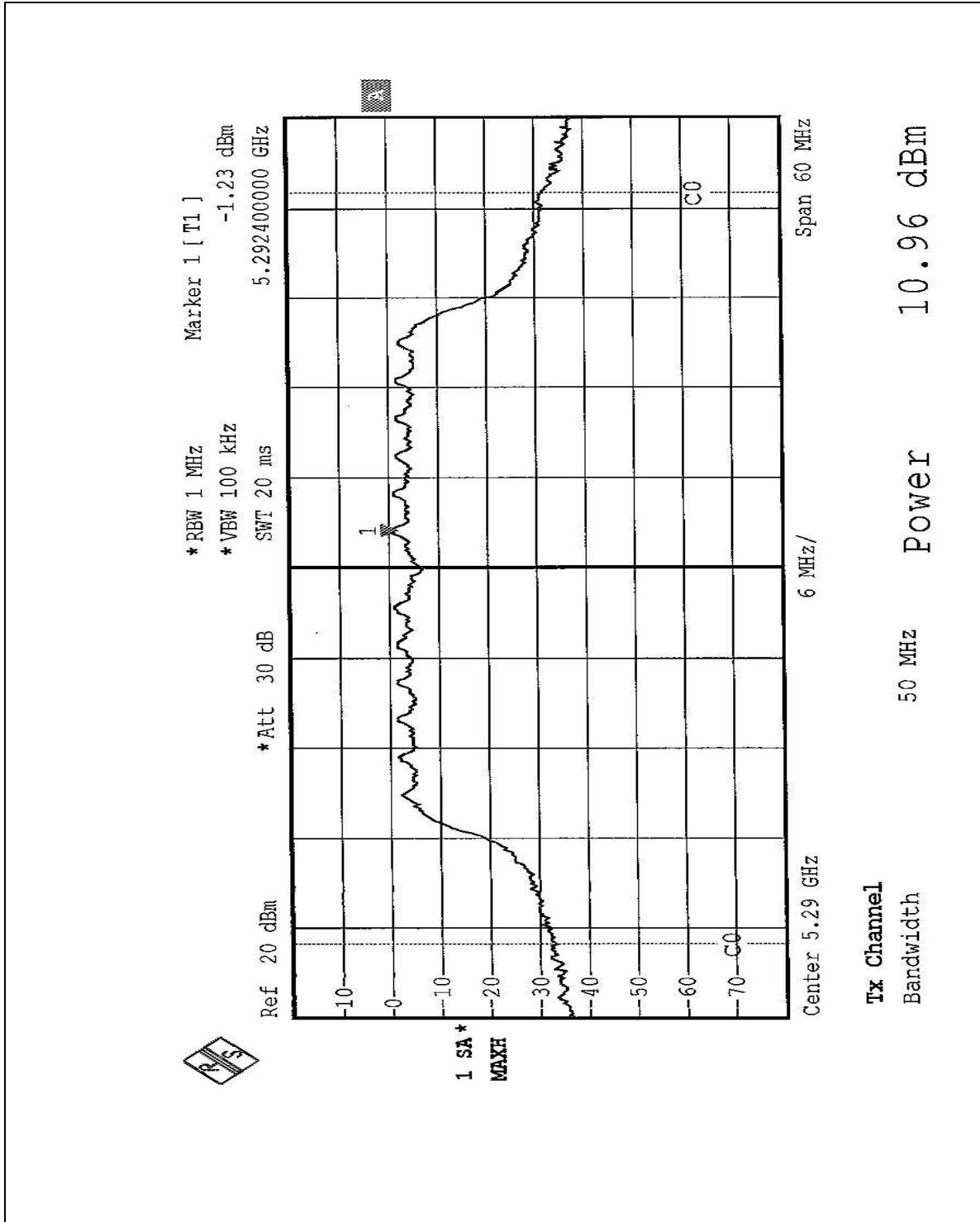


CHANNEL 2



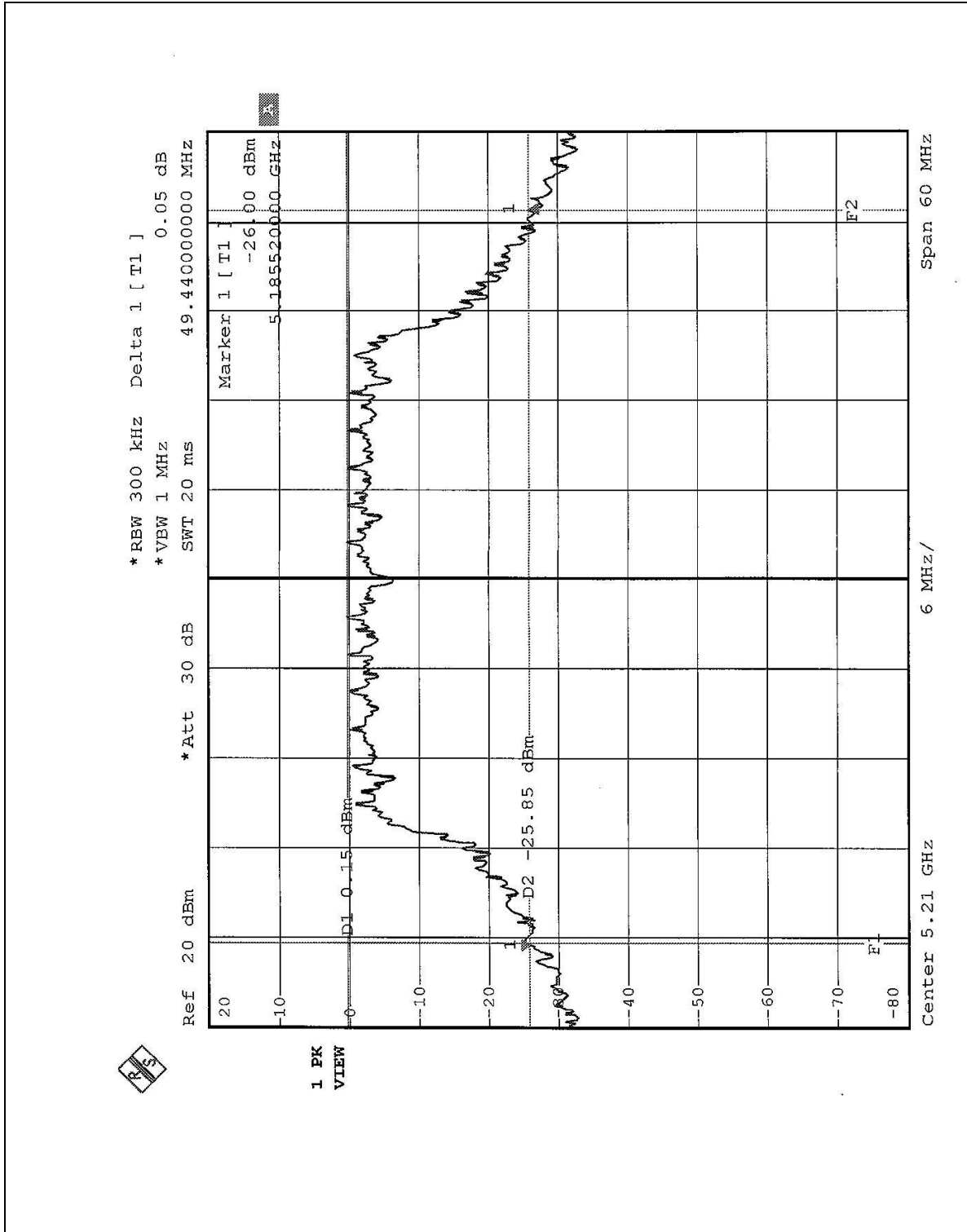


CHANNEL 3





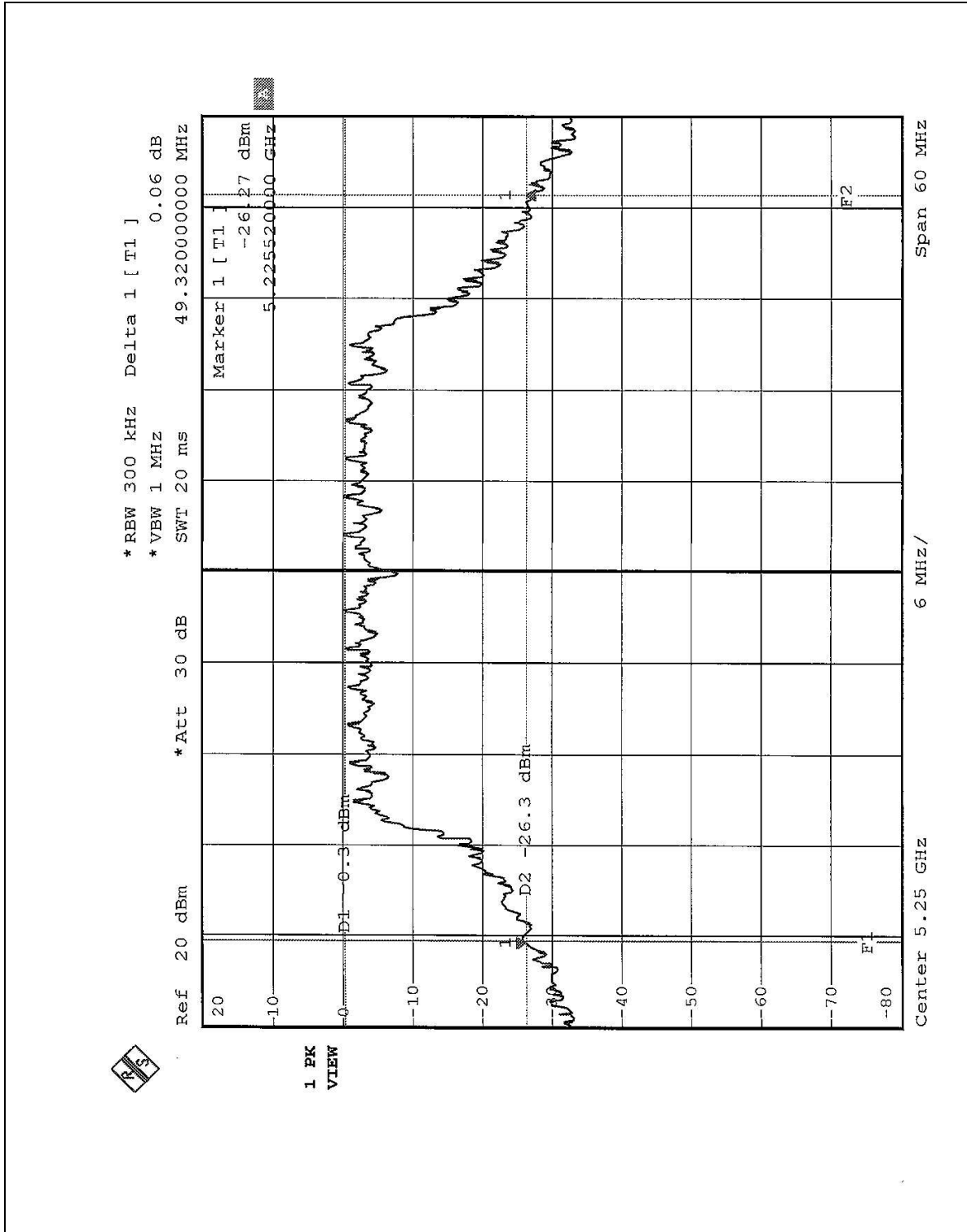
CHANNEL 1





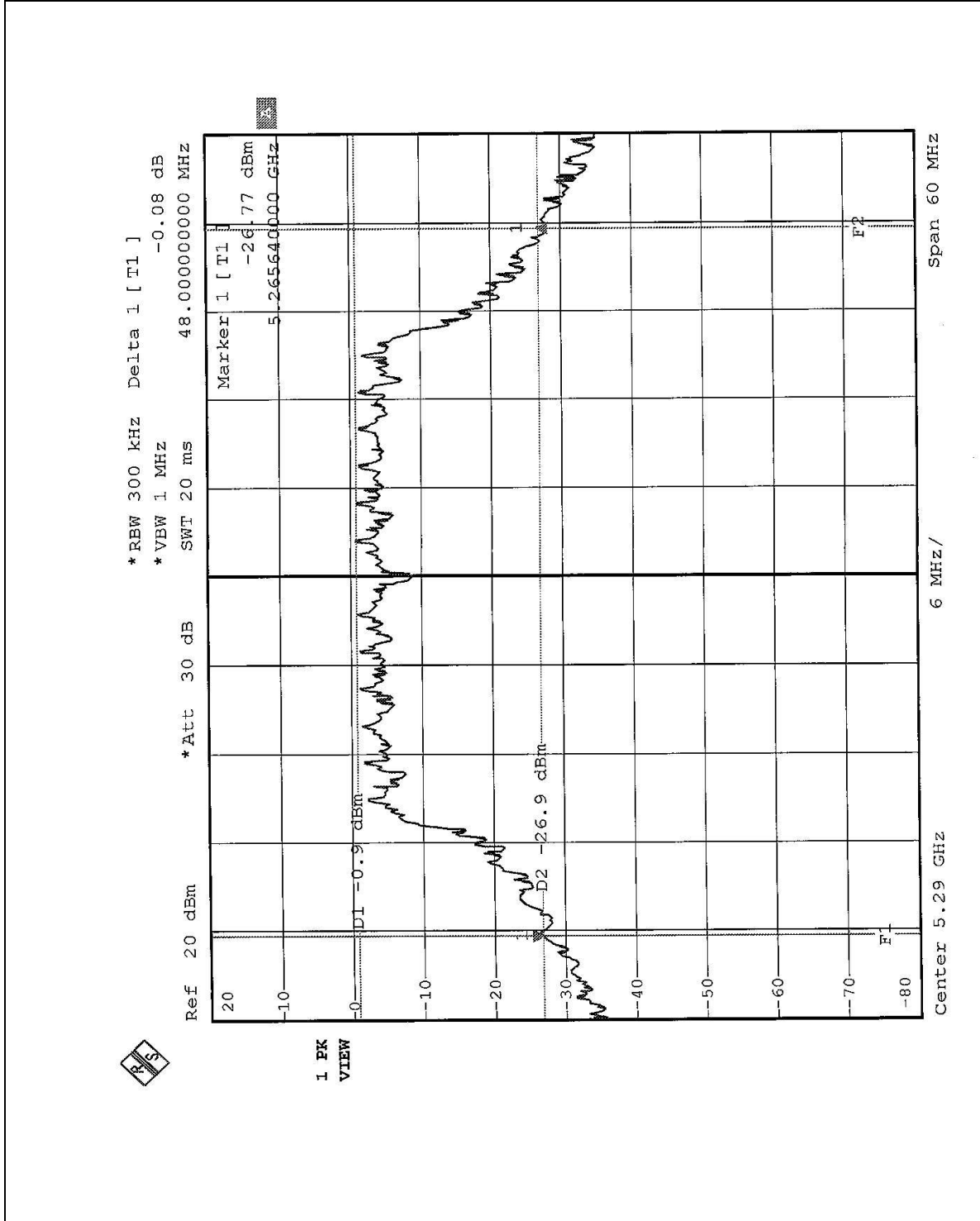


CHANNEL 2





CHANNEL 3





## 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=100KHz).
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.



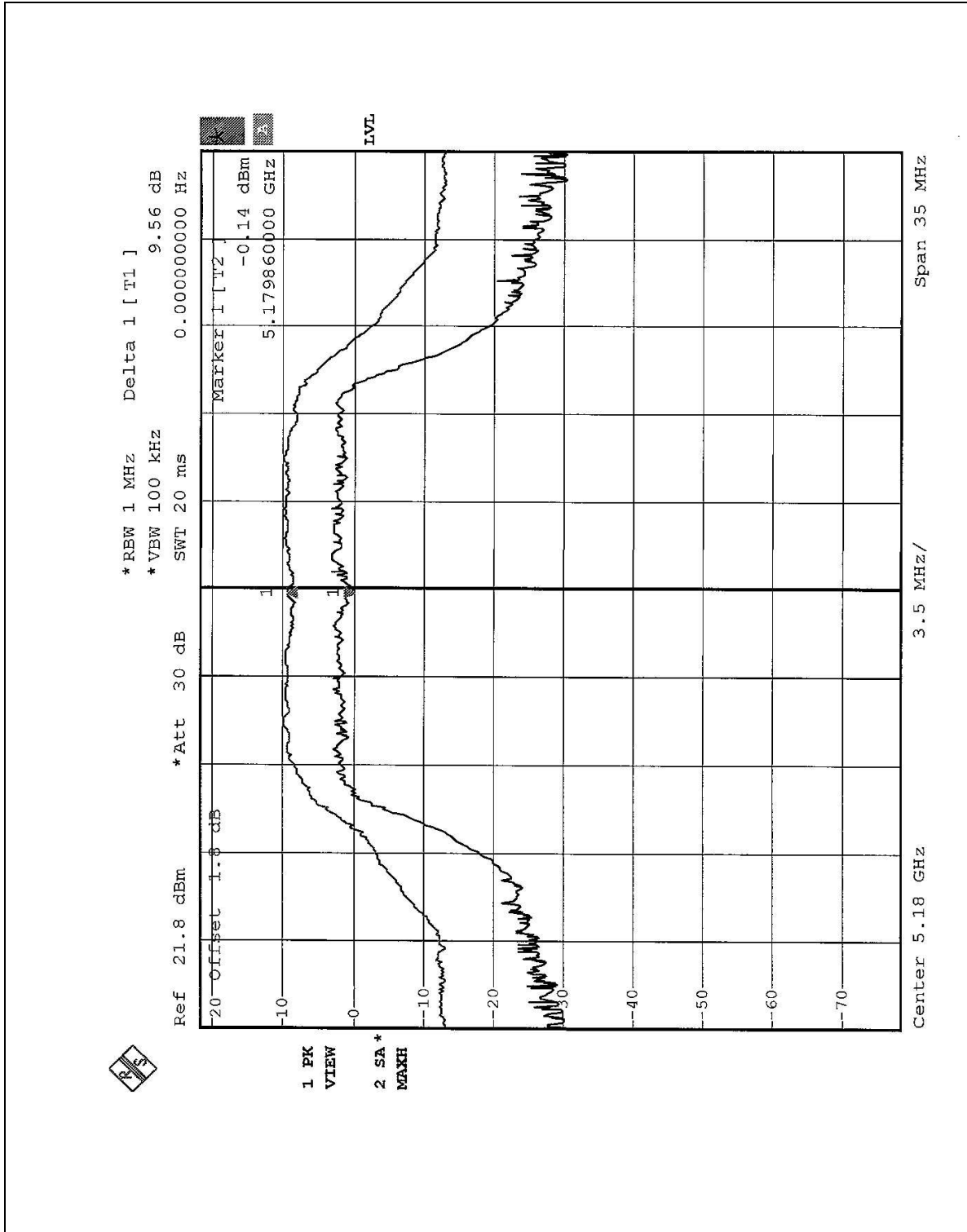
## 5.4.7 TEST RESULTS

<b>EUT</b>	Dual-Band Wireless A+G Broadband Router	<b>MODEL</b>	WRT55AG
<b>MODE</b>	Normal	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz
<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 64%RH, 1005hPa	<b>TESTED BY</b>	Steven Lu

<b>CHANNEL</b>	<b>CHANNEL FREQUENCY (MHz)</b>	<b>PEAK POWER EXCURSION (dB)</b>	<b>PEAK to AVERAGE EXCURSION LIMIT (dB)</b>	<b>PASS/FAIL</b>
1	5180	9.56	13	PASS
4	5240	8.85	13	PASS
5	5260	8.01	13	PASS
8	5320	9.09	13	PASS

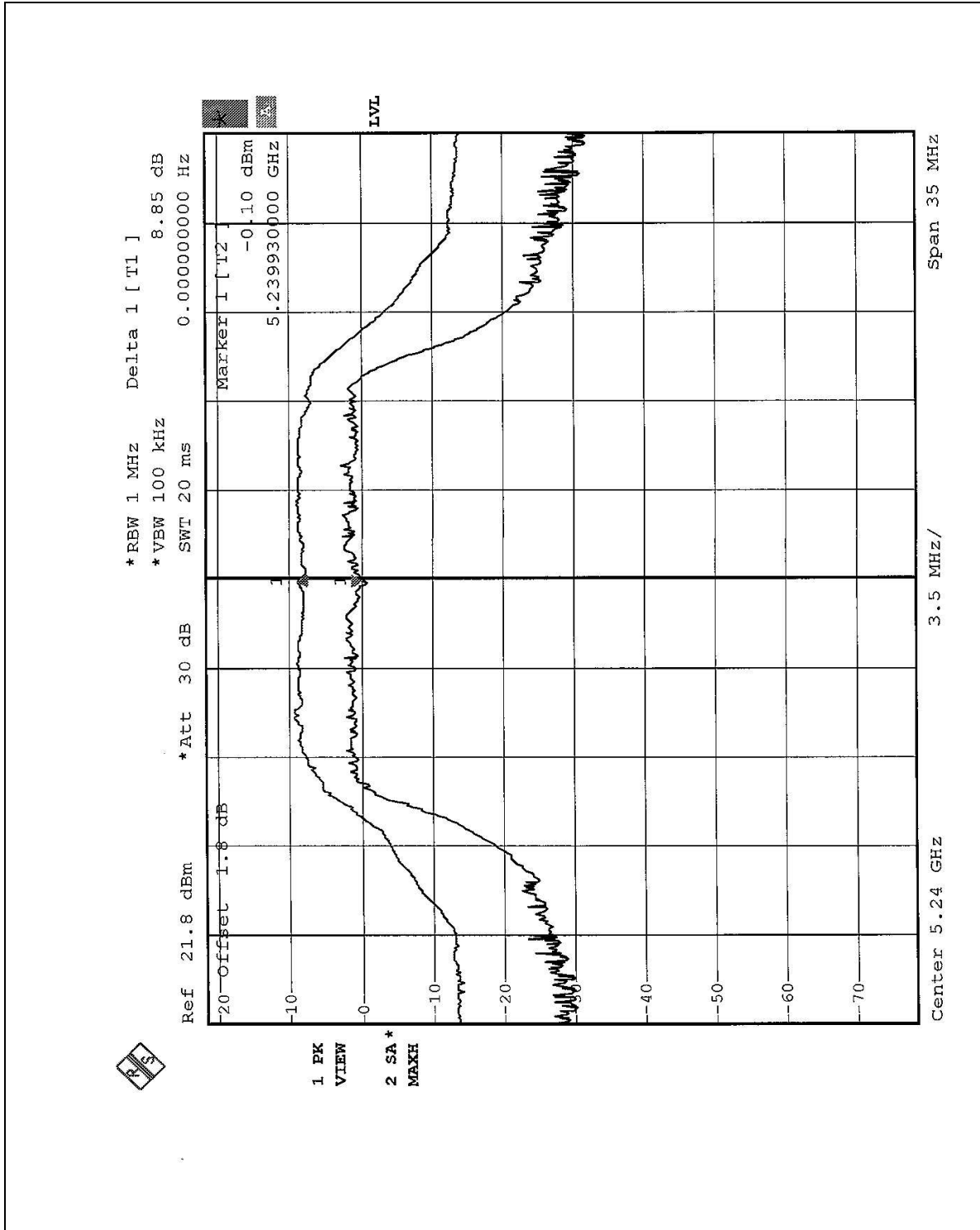


CHANNEL 1



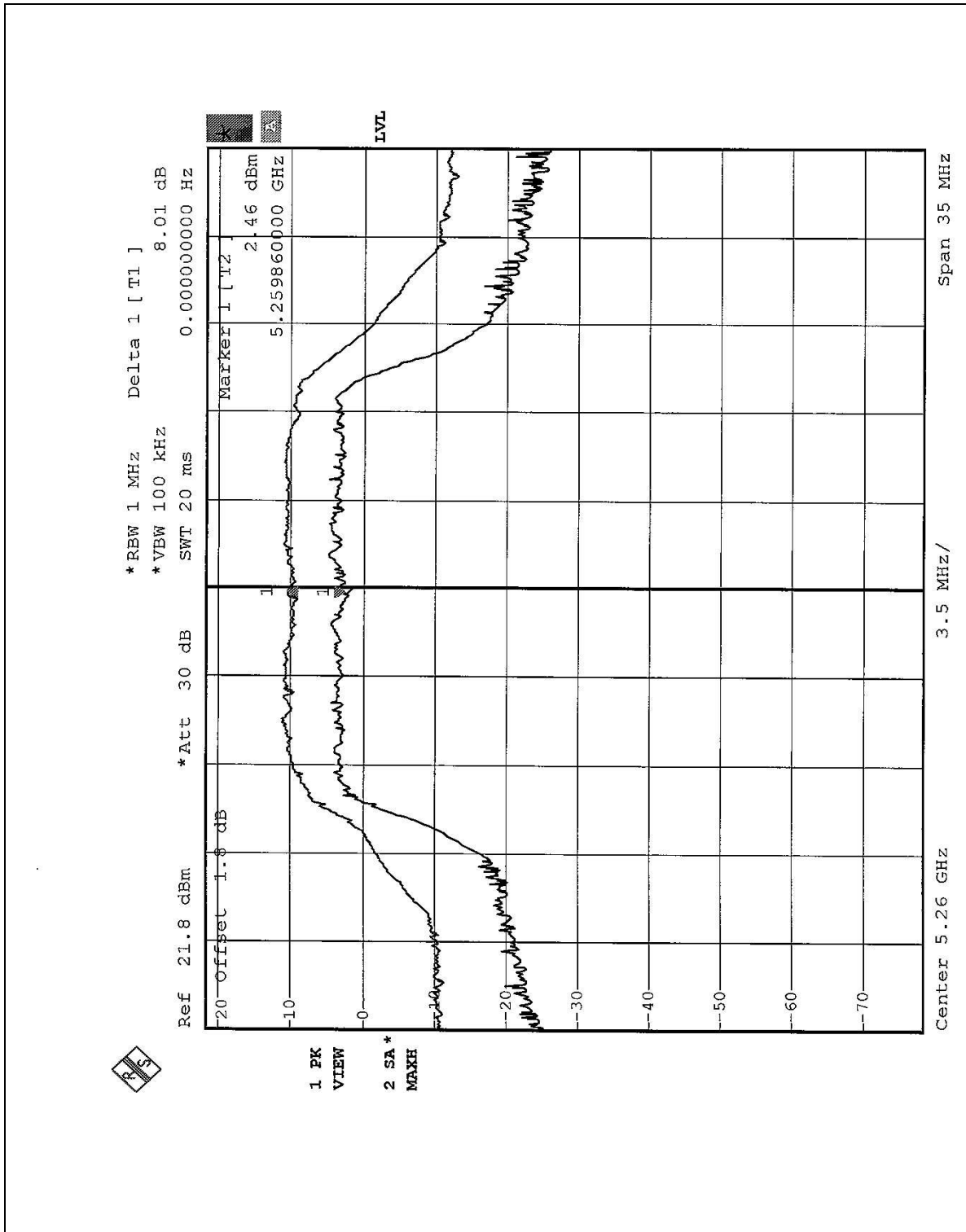


CHANNEL 4





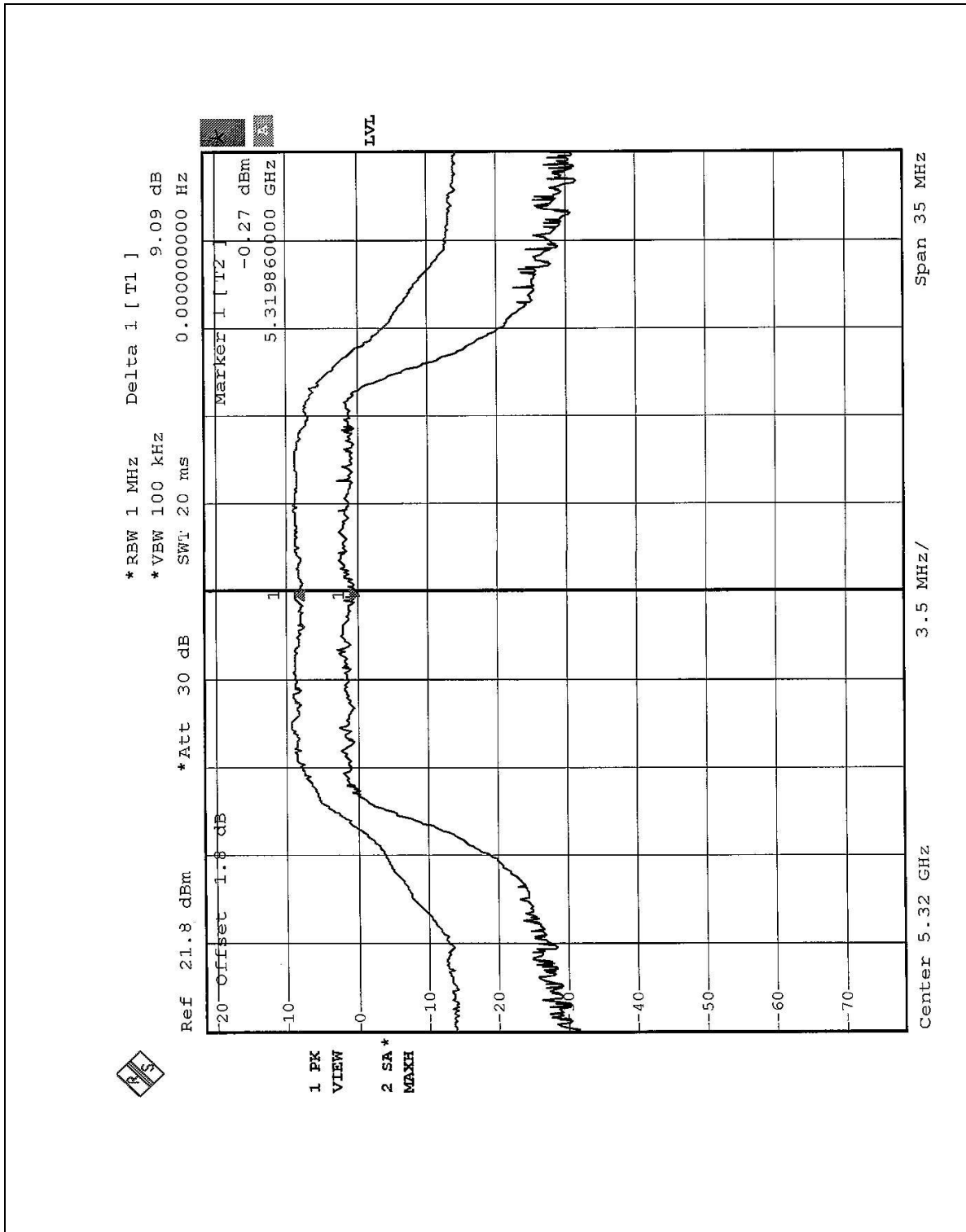
CHANNEL 5







CHANNEL 8



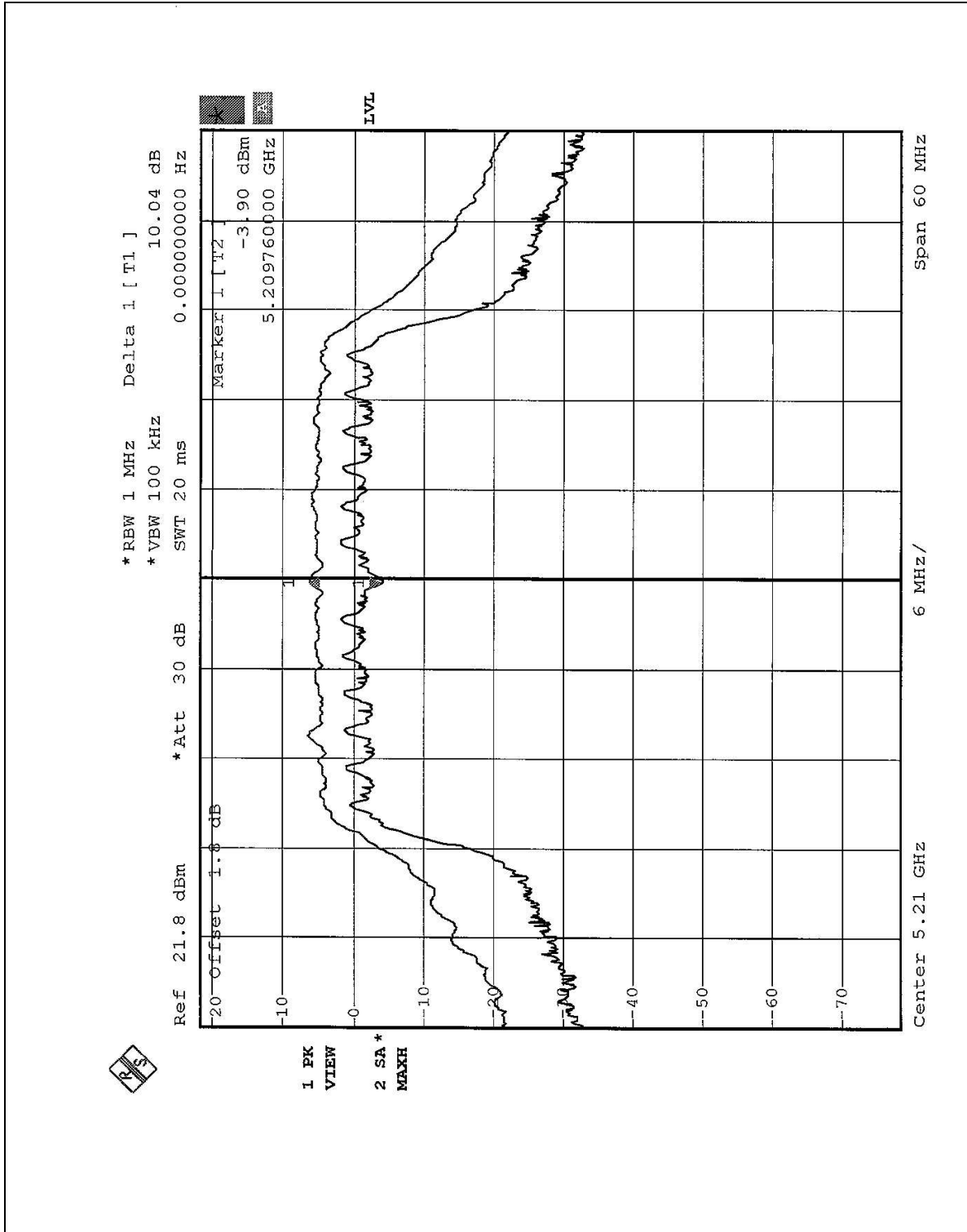


<b>EUT</b>	Dual-Band Wireless A+G Broadband Router	<b>MODEL</b>	WRT55AG
<b>MODE</b>	Turbo	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz
<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 64%RH, 1005hPa	<b>TESTED BY</b>	Steven Lu

<b>CHANNEL</b>	<b>CHANNEL FREQUENCY (MHz)</b>	<b>PEAK POWER EXCURSION (dB)</b>	<b>PEAK to AVERAGE EXCURSION LIMIT (dB)</b>	<b>PASS/FAIL</b>
1	5210	10.04	13	PASS
2	5250	10.90	13	PASS
3	5290	10.96	13	PASS

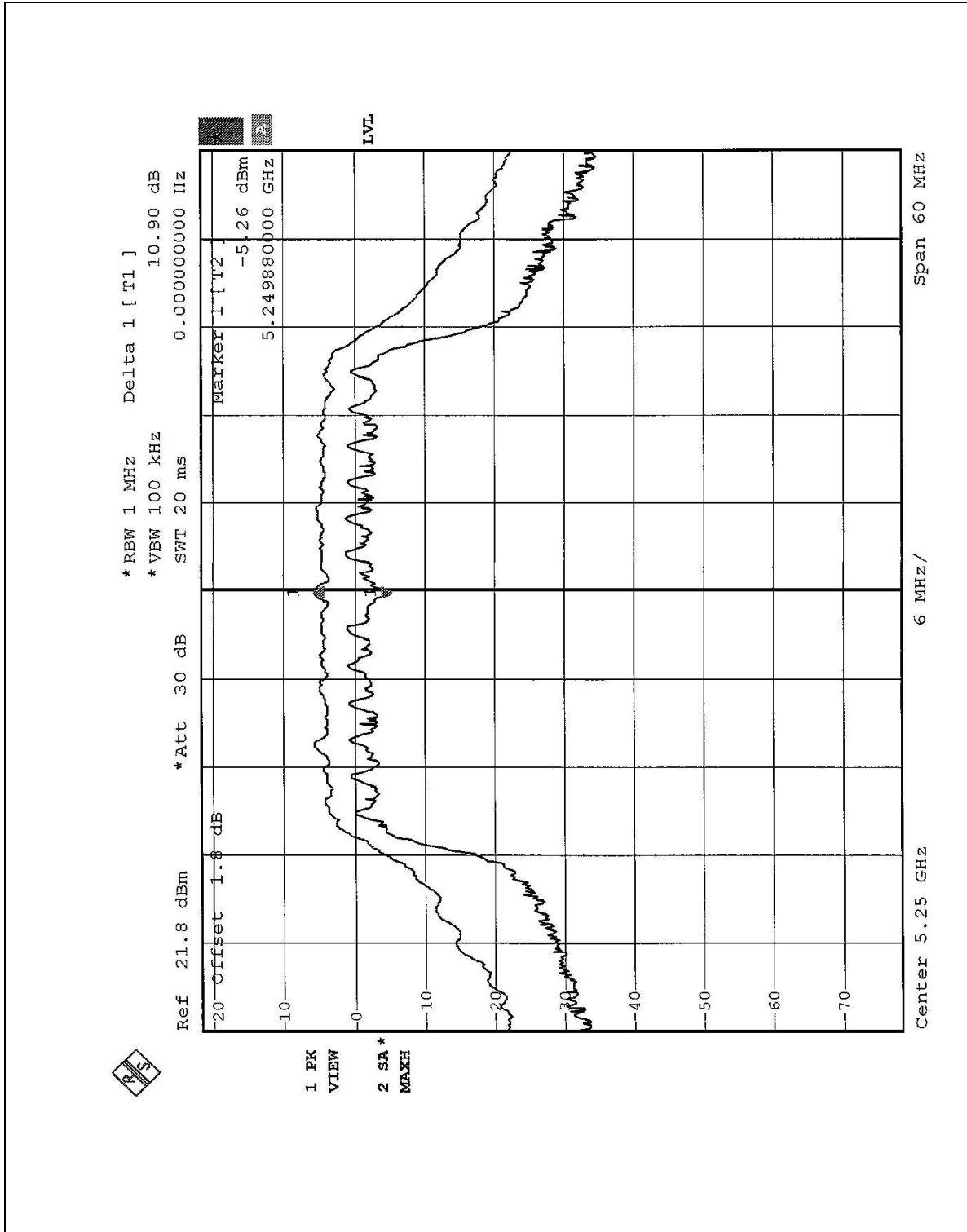


CHANNEL 1





CHANNEL 2





CHANNEL 3

