



<b>EUT</b>	Flanker Pro Dual Radio AP	<b>MODEL</b>	AP-AG-AT-02
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg.C, 58%RH, 982 hPa
<b>TEST MODE</b>	Normal	<b>TEST BY</b>	Eric Lee

## Antenna 5 (Gain 17dBi)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
9	5745	18.89	19	PASS
11	5785	17.05	19	PASS
13	5825	15.10	19	PASS

## Antenna 6 (Gain 28.2dBi)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
9	5745	17.28	30	PASS
11	5785	17.30	30	PASS
13	5825	17.14	30	PASS

## Antenna 7 + 7 dB Pad (Gain 26.4dBi)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
9	5745	18.87	30	PASS
11	5785	17.11	30	PASS
13	5825	17.00	30	PASS

## Antenna 8 (Gain 13dBi)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
9	5745	20.28	23	PASS
11	5785	19.00	23	PASS
13	5825	17.20	23	PASS



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<b>TEST MODE</b>	Turbo	<b>TEST BY</b>	Eric Lee

## Antenna 1 (Gain 3.5dBi)

<b>CHANNEL</b>	<b>CHANNEL FREQUENCY (MHz)</b>	<b>PEAK POWER OUTPUT (dBm)</b>	<b>PEAK POWER LIMIT (dBm)</b>	<b>PASS/FAIL</b>
4	5760	22.31	30	PASS
5	5800	22.28	30	PASS

## Antenna 2 (Gain 3dBi)

<b>CHANNEL</b>	<b>CHANNEL FREQUENCY (MHz)</b>	<b>PEAK POWER OUTPUT (dBm)</b>	<b>PEAK POWER LIMIT (dBm)</b>	<b>PASS/FAIL</b>
4	5760	22.31	30	PASS
5	5800	22.28	30	PASS

## Antenna 3 (Gain 4dBi)

<b>CHANNEL</b>	<b>CHANNEL FREQUENCY (MHz)</b>	<b>PEAK POWER OUTPUT (dBm)</b>	<b>PEAK POWER LIMIT (dBm)</b>	<b>PASS/FAIL</b>
4	5760	23.28	30	PASS
5	5800	22.65	30	PASS



<b>EUT</b>	Flanker Pro Dual Radio AP	<b>MODEL</b>	AP-AG-AT-02
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz	<b>ENVIRONMENTAL CONDITIONS</b>	28deg.C, 56%RH, 982 hPa
<b>TEST MODE</b>	Turbo	<b>TEST BY</b>	Eric Lee

## Antenna 5 (Gain 17dBi)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
4	5760	18.04	19	PASS
5	5800	17.04	19	PASS

## Antenna 6 (Gain 28.2dBi)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
4	5760	20.34	30	PASS
5	5800	20.87	30	PASS

## Antenna 7 + 7 dB Pad (Gain 26.4dBi)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
4	5760	20.74	30	PASS
5	5800	20.25	30	PASS

## Antenna 8 (Gain 13dBi)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
4	5760	21.01	23	PASS
5	5800	21.32	23	PASS



### 5.9.7 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

### 5.9.8 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP	1093.4495.30	Dec. 19, 2004

**NOTE:**

- 1.The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81.
- 2.The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.



### 5.9.9 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3 kHz RBW and 30 kHz VBW, set sweep time = span/3 kHz. The power spectral density was measured and recorded.

The sweep time is allowed to be longer than span/3 kHz for a full response of the mixer in the spectrum analyzer.

### 5.9.10 DEVIATION FROM TEST STANDARD

No deviation

### 5.9.11 TEST SETUP



### 5.9.12 EUT OPERATING CONDITION

Same as Item 4.3.6



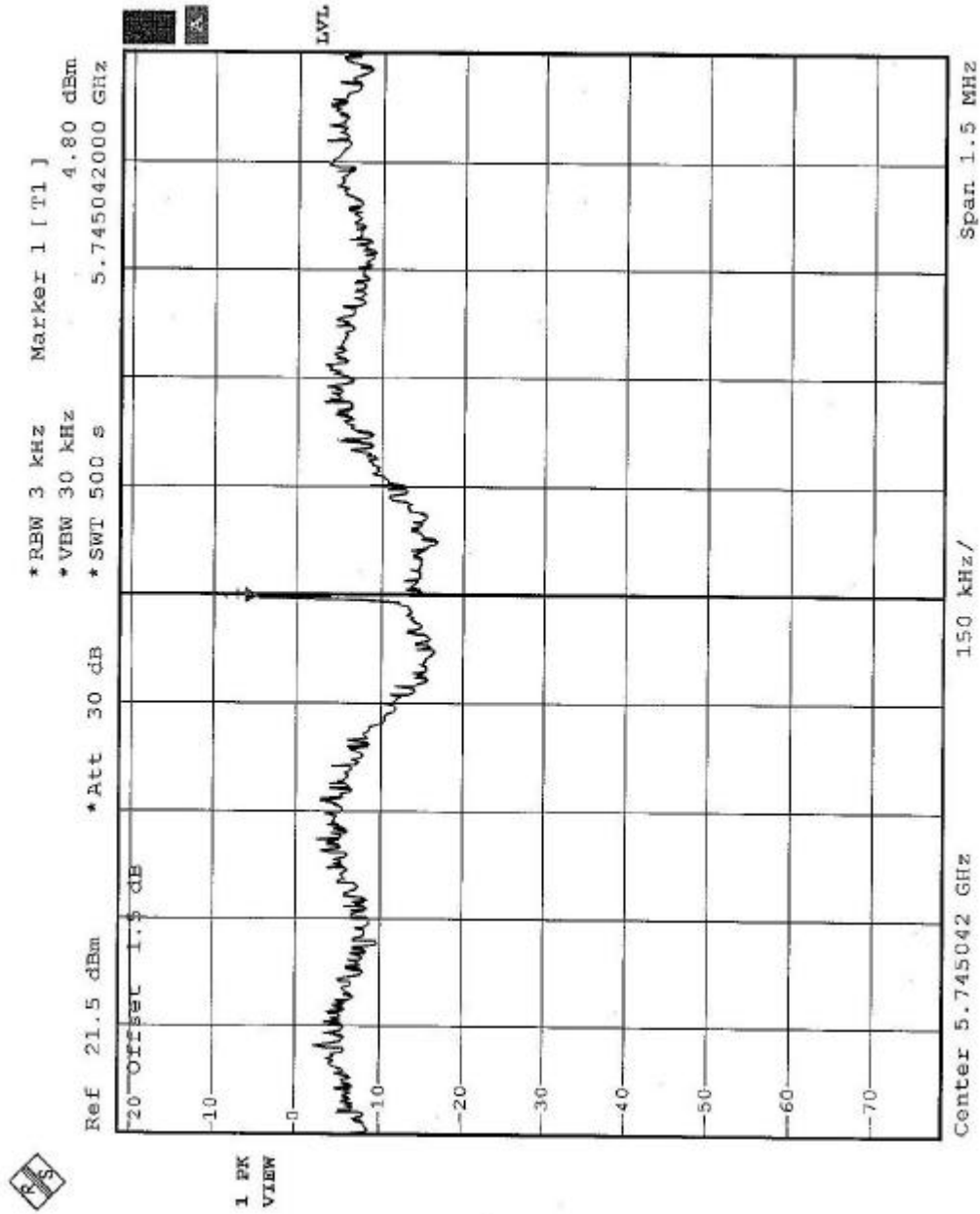
## 5.9.13 TEST RESULTS

<b>EUT</b>	Flanker Pro Dual Radio AP	<b>MODEL</b>	AP-AG-AT-02
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz	<b>ENVIRONMENTAL CONDITIONS</b>	51deg. C, 58%RH, 982 hPa
<b>TEST MODE</b>	Normal	<b>TEST BY</b>	Eric Lee

<b>CHANNEL NUMBER</b>	<b>CHANNEL FREQUENCY (MHz )</b>	<b>RF POWER LEVEL IN 3 kHz BW (dBm)</b>	<b>MAXIMUM LIMIT (dBm)</b>	<b>PASS/FAIL</b>
9	5745	4.80	8	PASS
11	5785	5.58	8	PASS
13	5825	-2.10	8	PASS

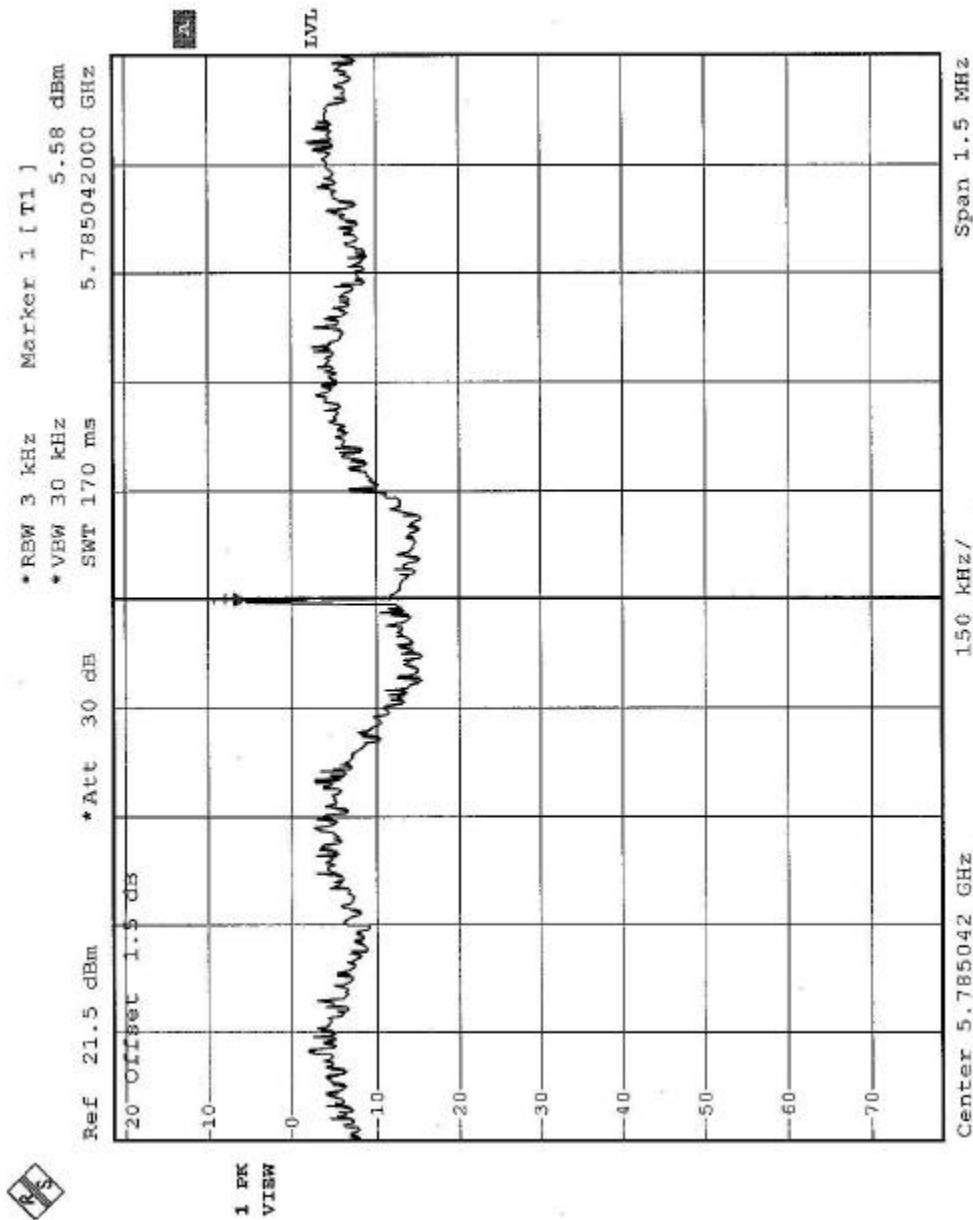


CH9





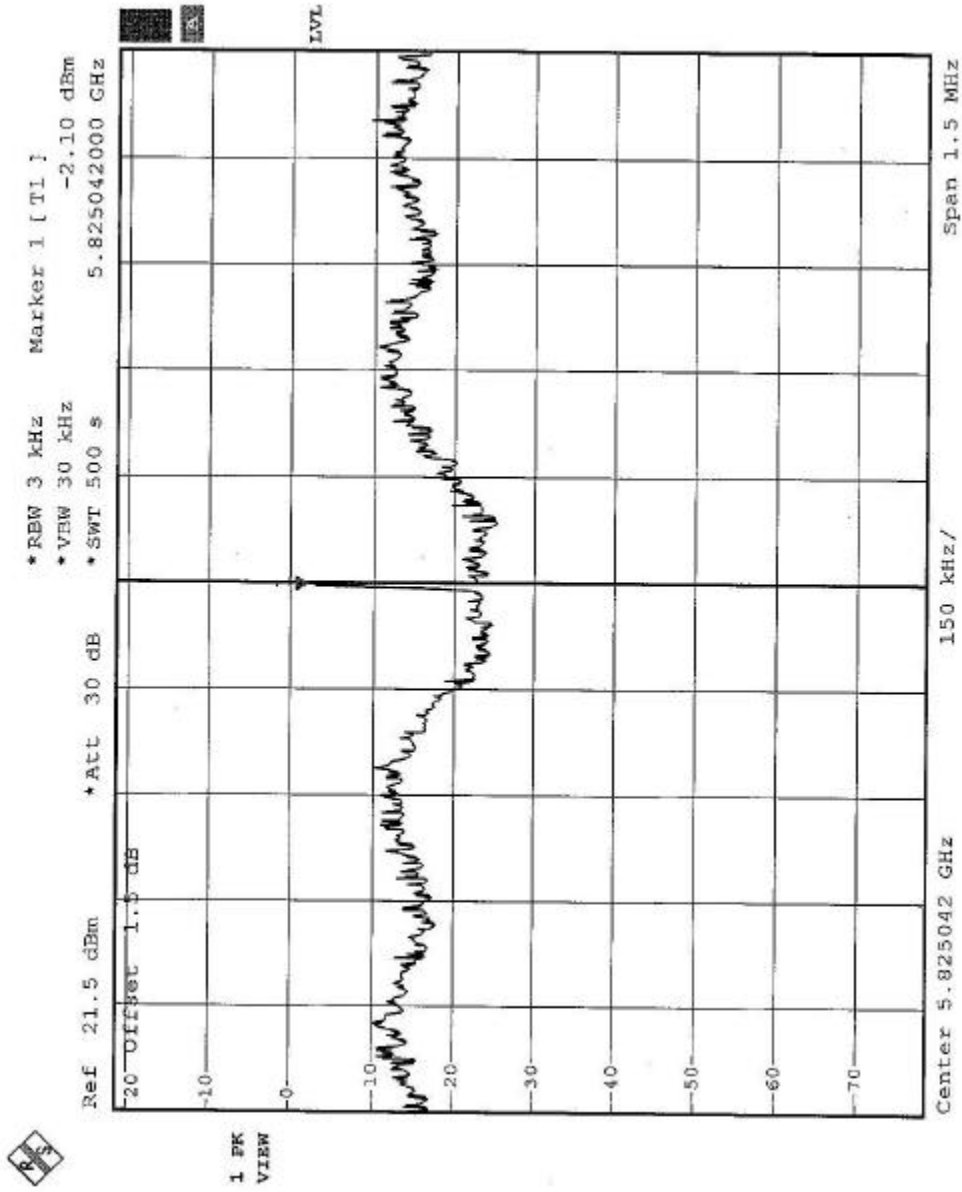
CH11







CH13



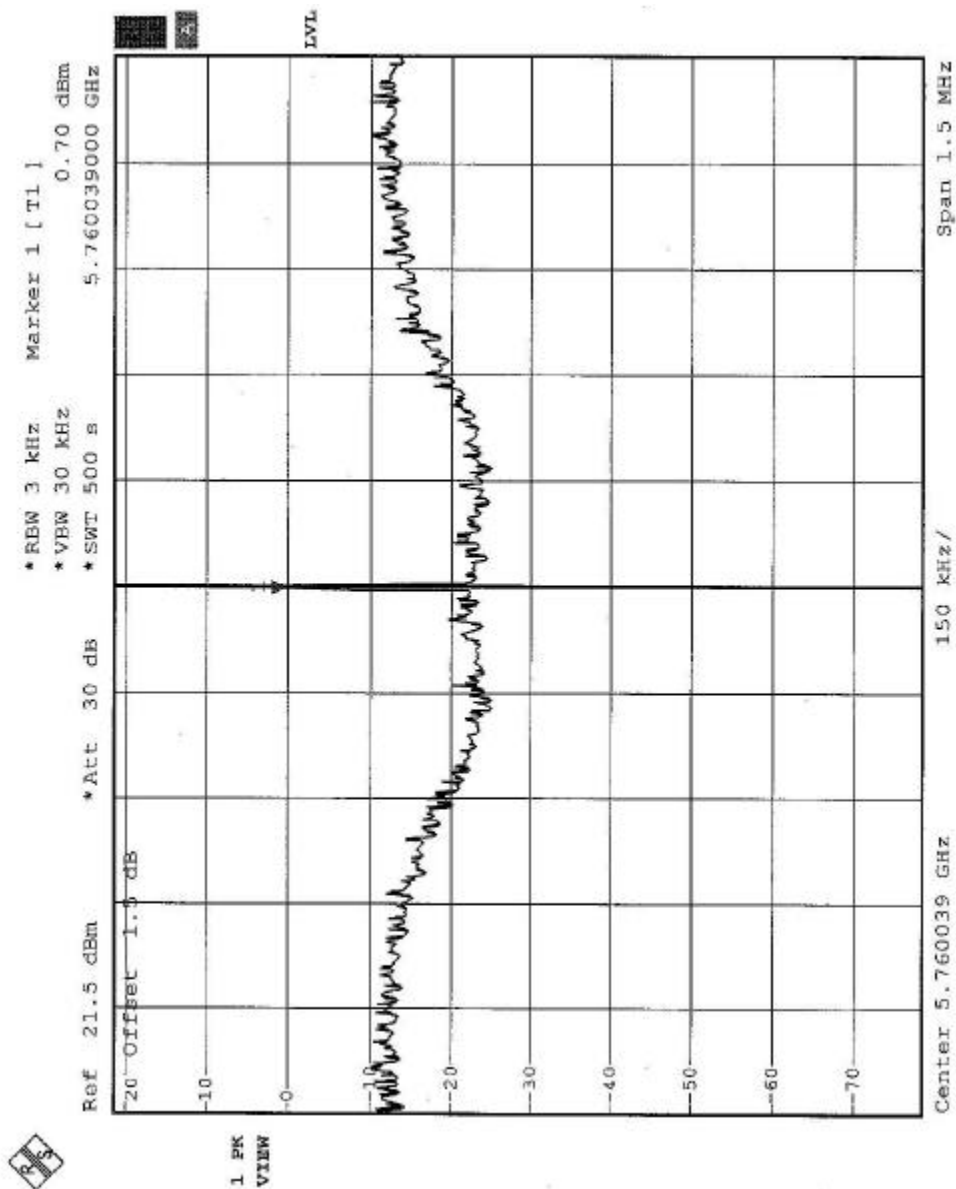


<b>EUT</b>	Flanker Pro Dual Radio AP	<b>MODEL</b>	AP-AG-AT-02
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz	<b>ENVIRONMENTAL CONDITIONS</b>	57deg. C, 56%RH, 982 hPa
<b>TEST MODE</b>	Turbo	<b>TEST BY</b>	Eric Lee

<b>CHANNEL NUMBER</b>	<b>CHANNEL FREQUENCY (MHz )</b>	<b>RF POWER LEVEL IN 3 kHz BW (dBm)</b>	<b>MAXIMUM LIMIT (dBm)</b>	<b>PASS/FAIL</b>
4	5760	0.70	8	PASS
5	5800	0.58	8	PASS

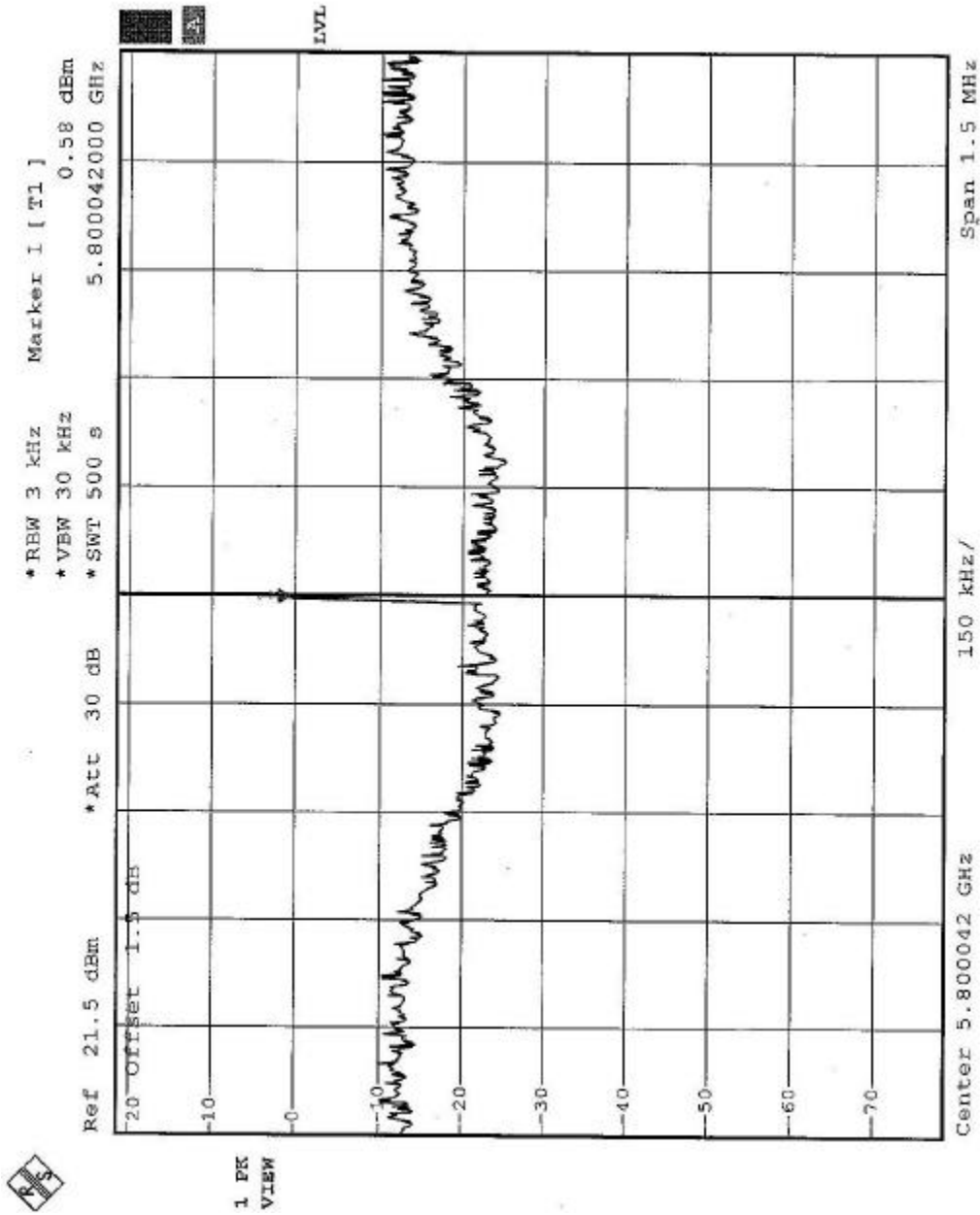


CH4





CH5





## 5.10 BAND EDGES MEASUREMENT

### 5.10.1 LIMITS OF BAND EDGES MEASUREMENT

Below  $-20\text{dB}$  of the highest emission level of operating band (in 100KHz Resolution Bandwidth).

### 5.10.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP	1093.4495.30	Dec. 19, 2004

**NOTE:**

- 1.The measurement uncertainty is less than  $\pm 2.6\text{dB}$ , which is calculated as per the NAMAS document NIS81.
- 2.The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

### 5.10.3 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 100 kHz with suitable frequency span including 100 kHz bandwidth from band edge. The band edges was measured and recorded.

### 5.10.4 DEVIATION FROM TEST STANDARD

No deviation



#### 5.10.5 EUT OPERATING CONDITION

Same as Item 4.3.6

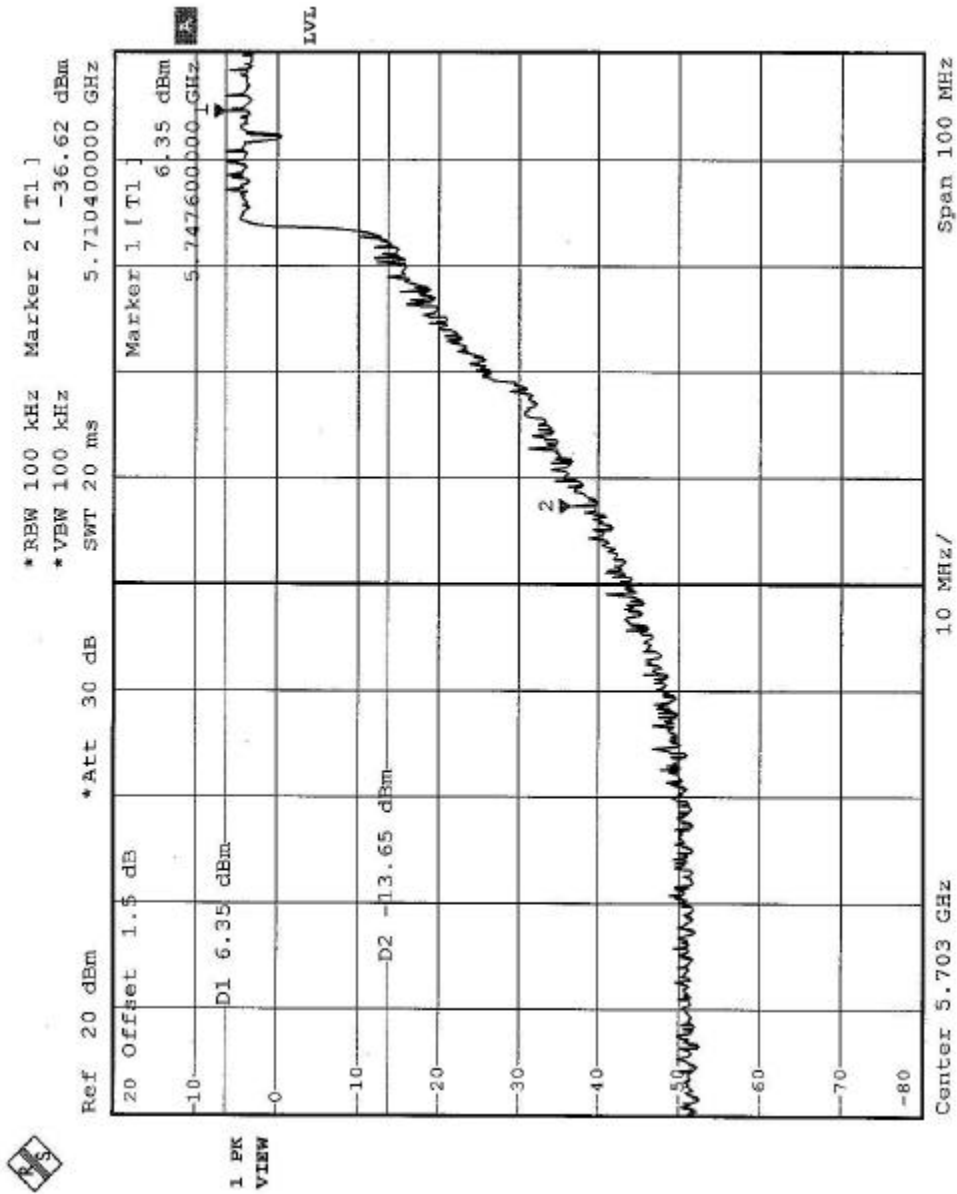
#### 5.10.6 TEST RESULTS

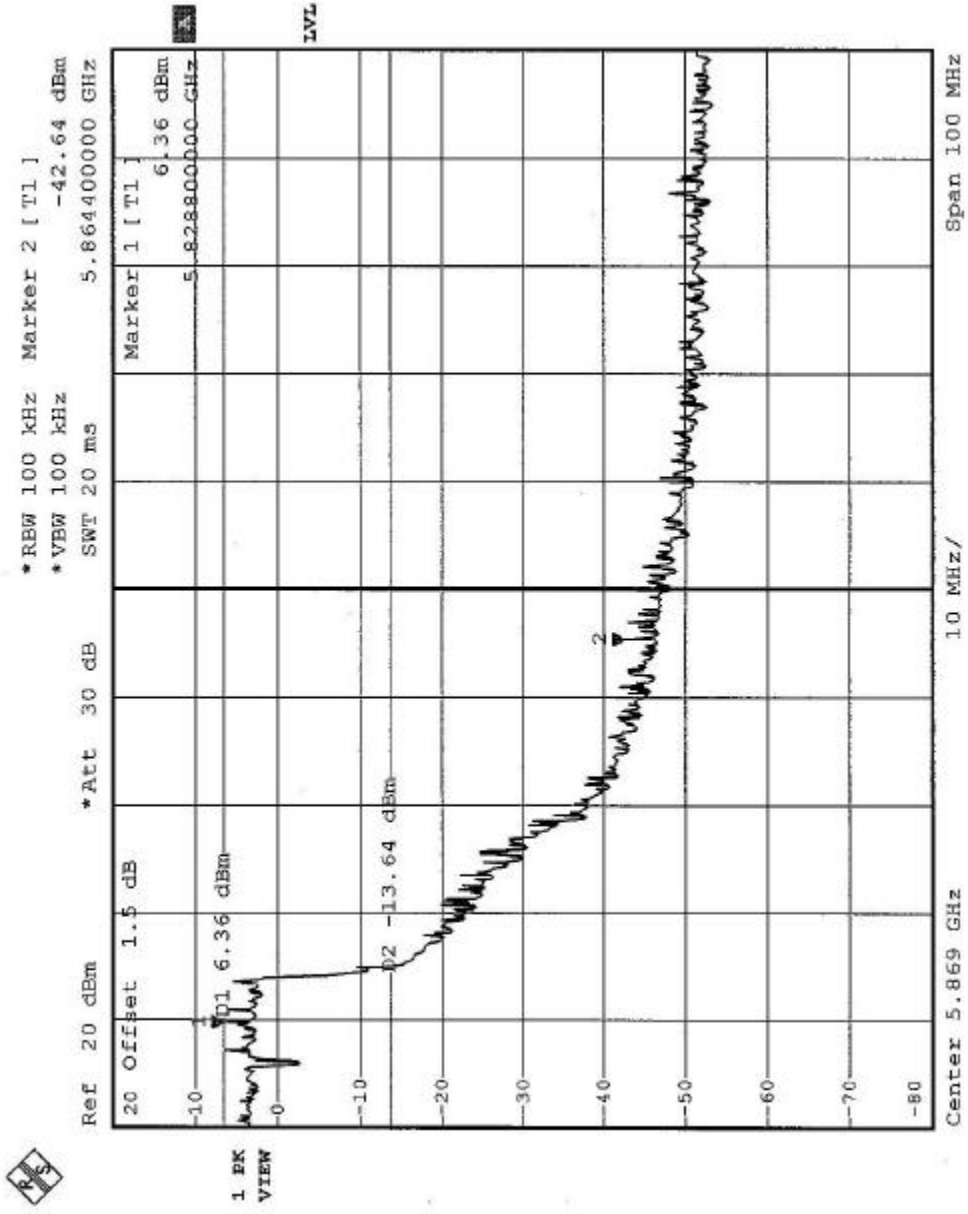
The spectrum plots are attached on the following pages. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).



# Antenna 1

Normal Mode

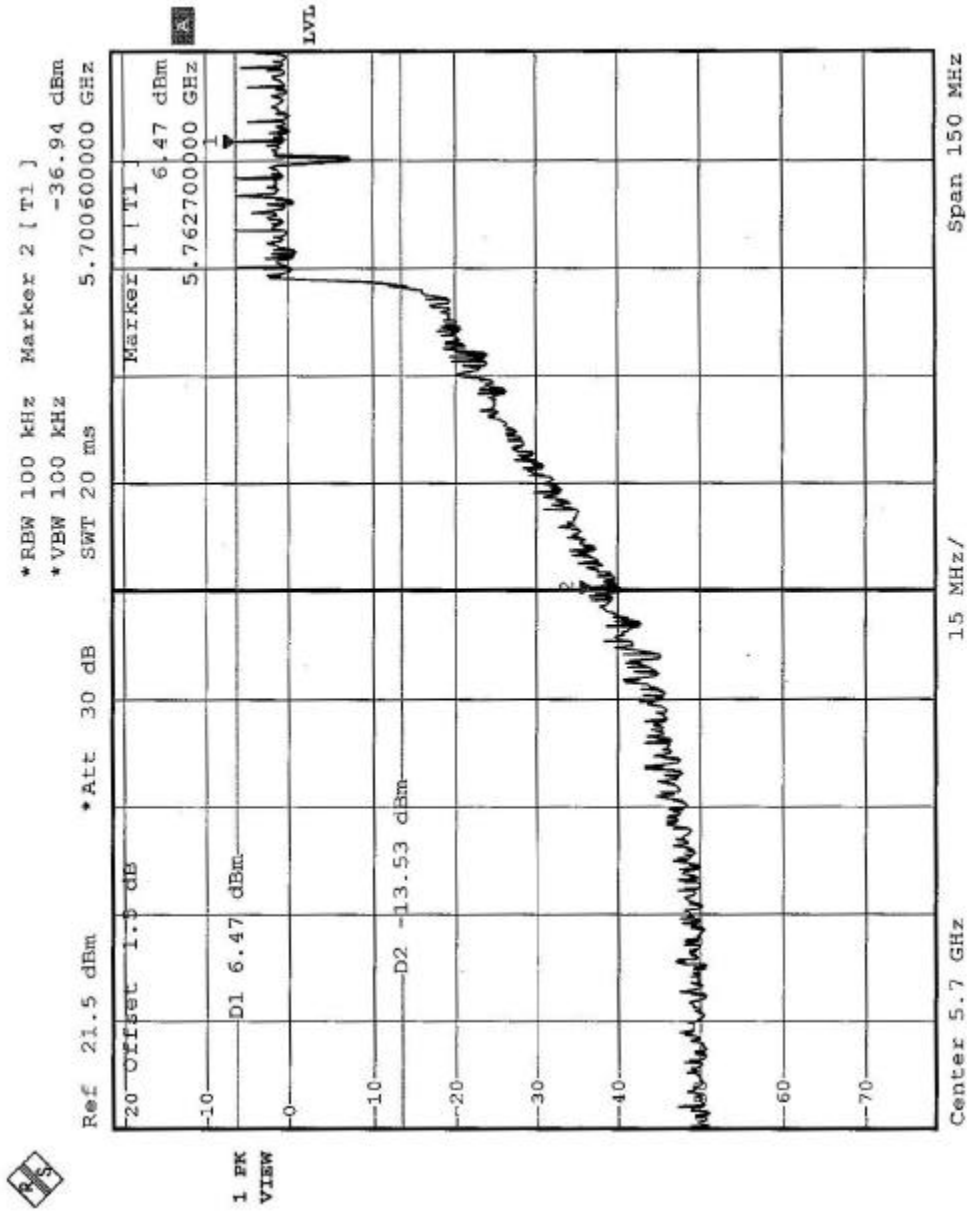


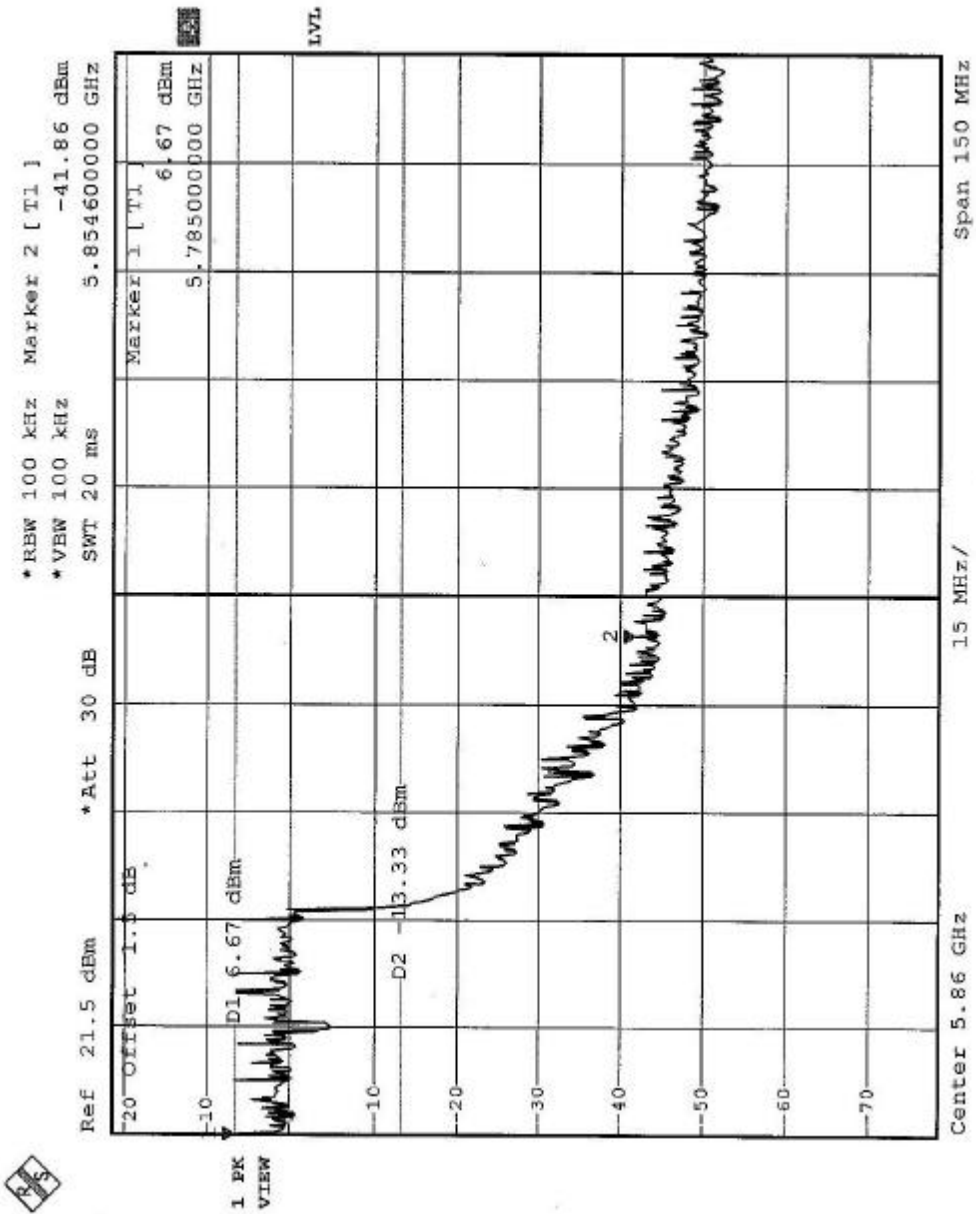






Turbo Mode

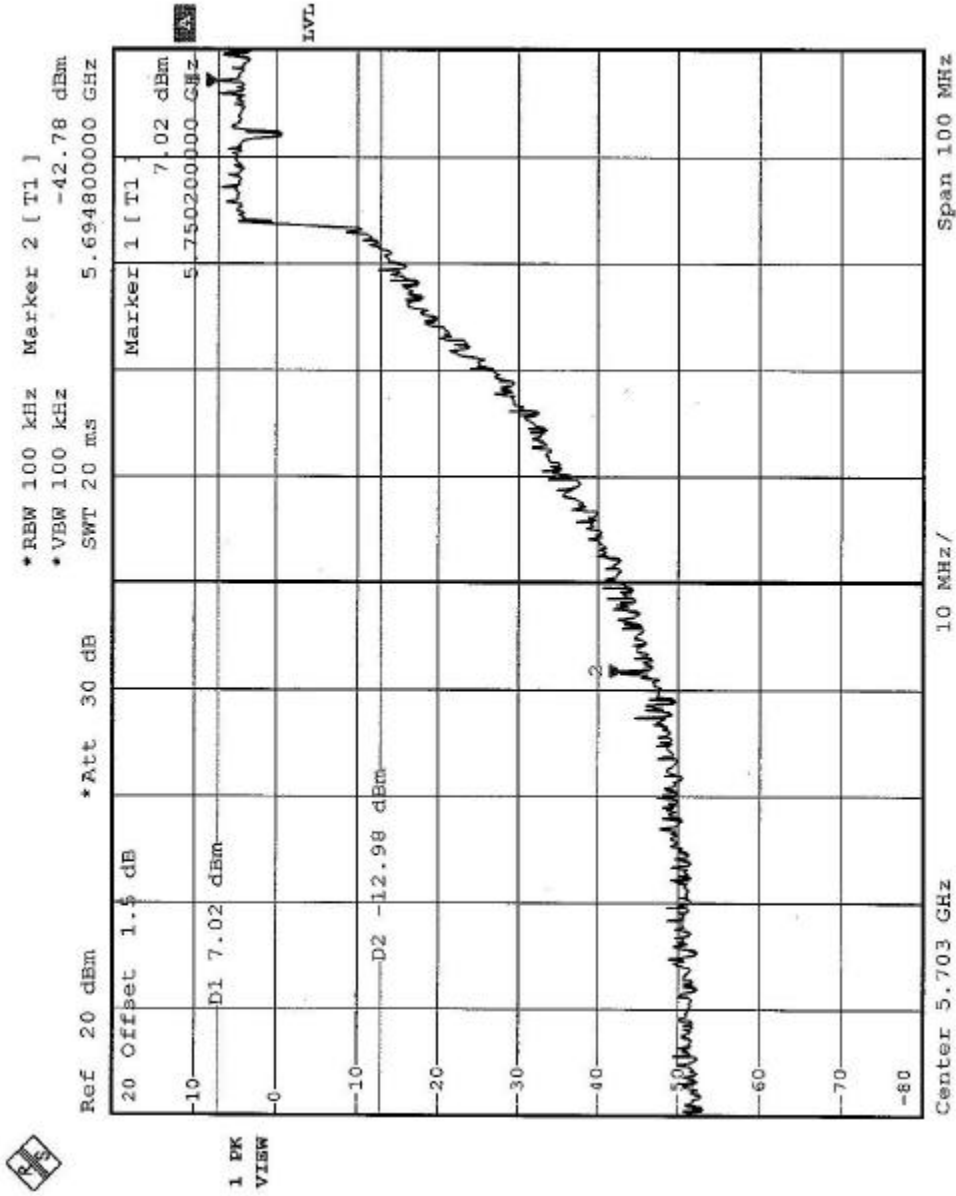


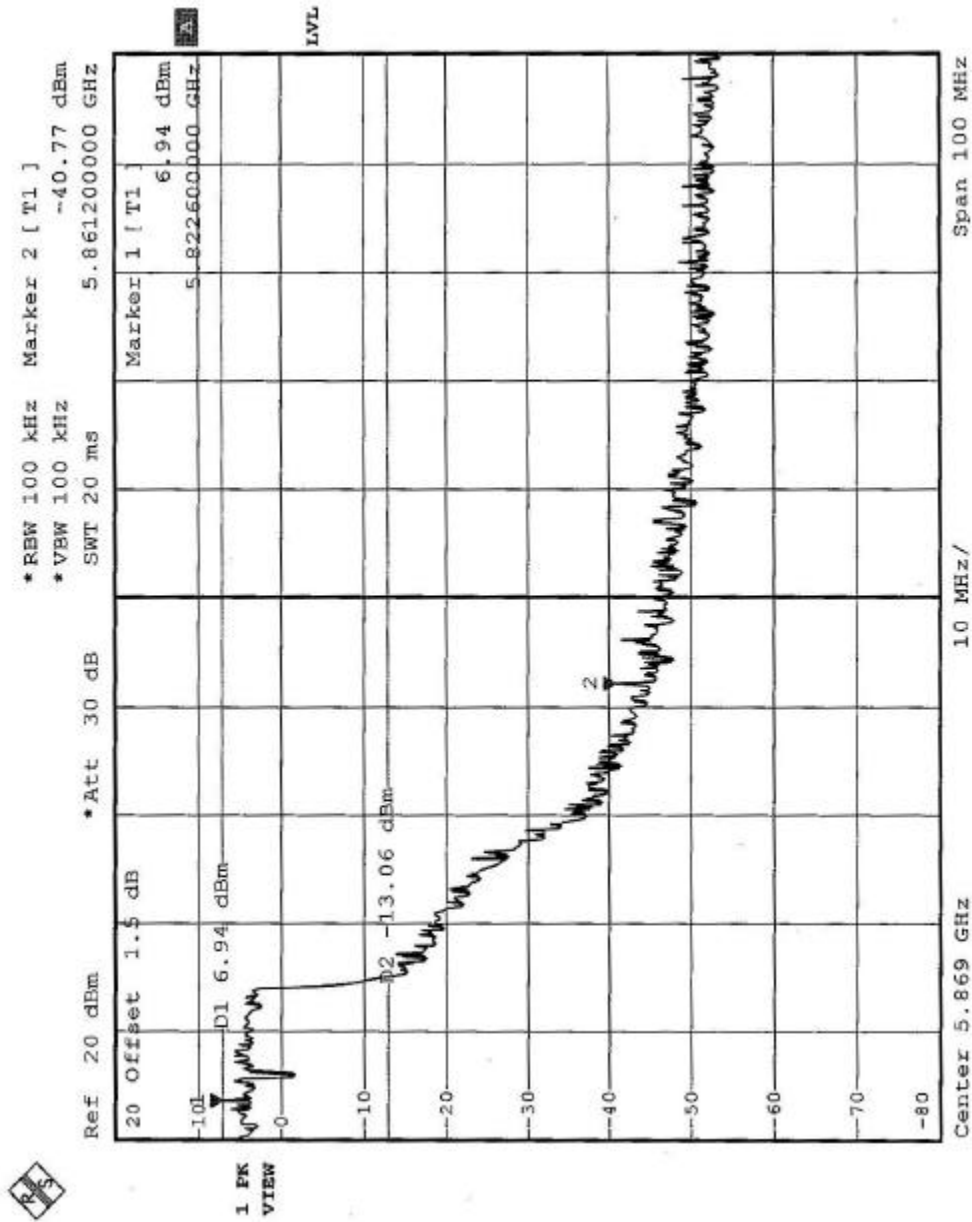




# Antenna 2

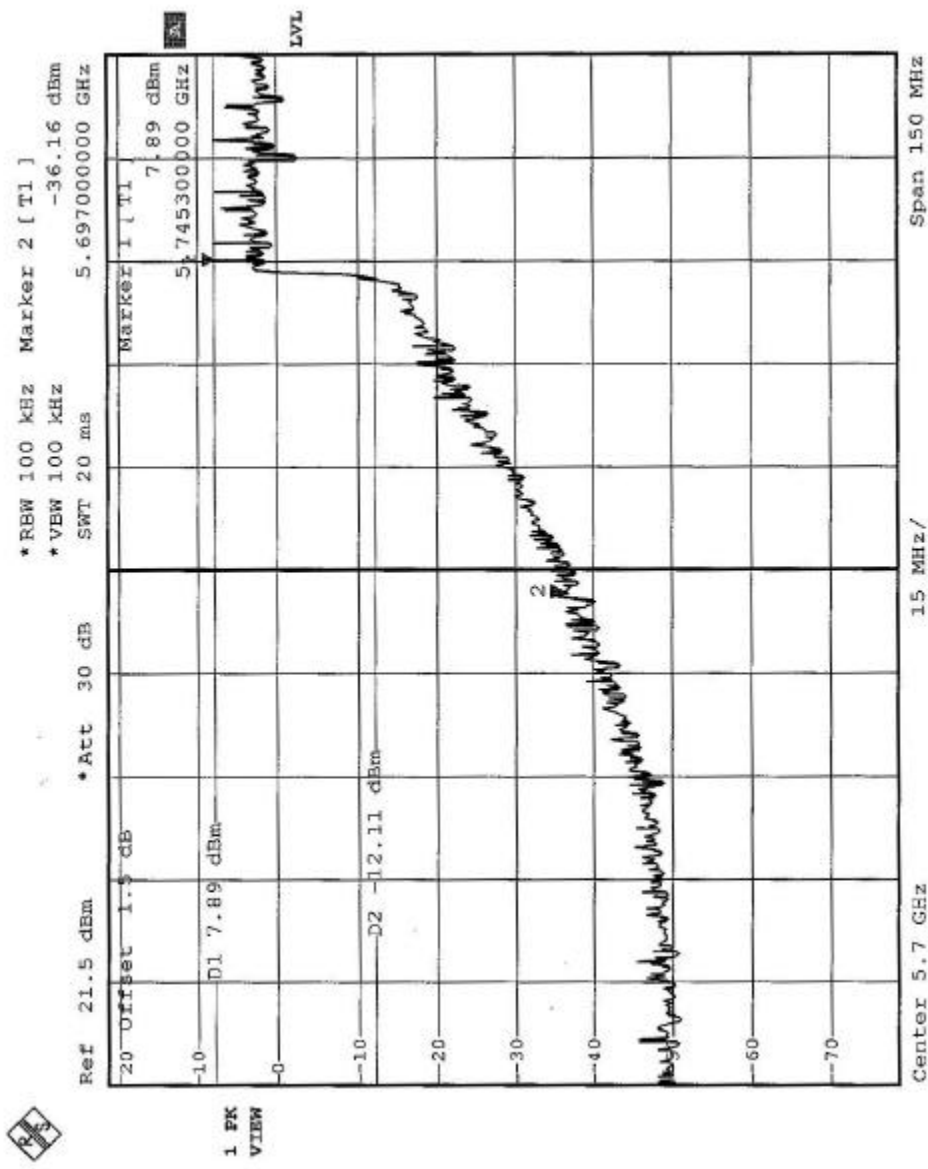
## Normal Mode

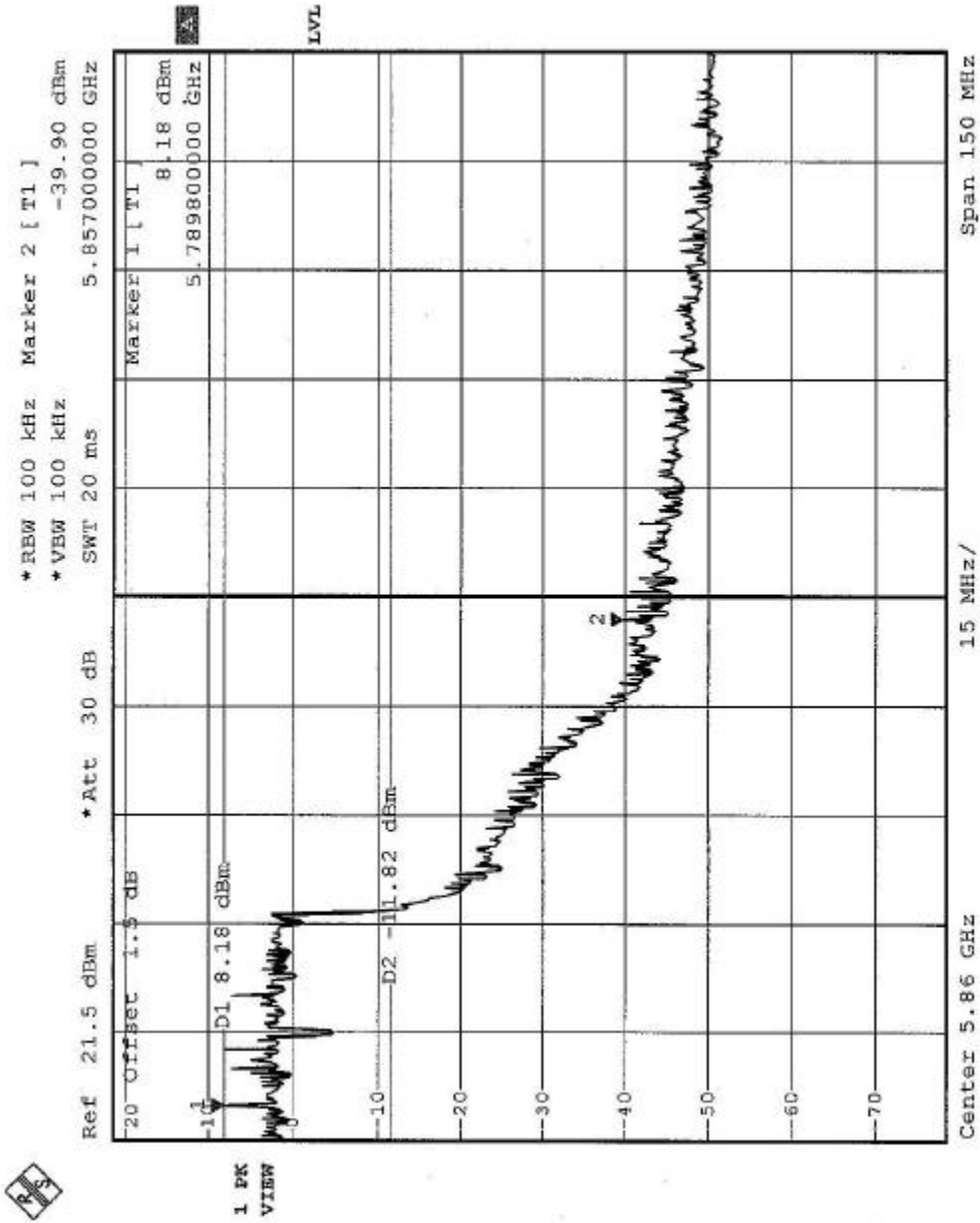






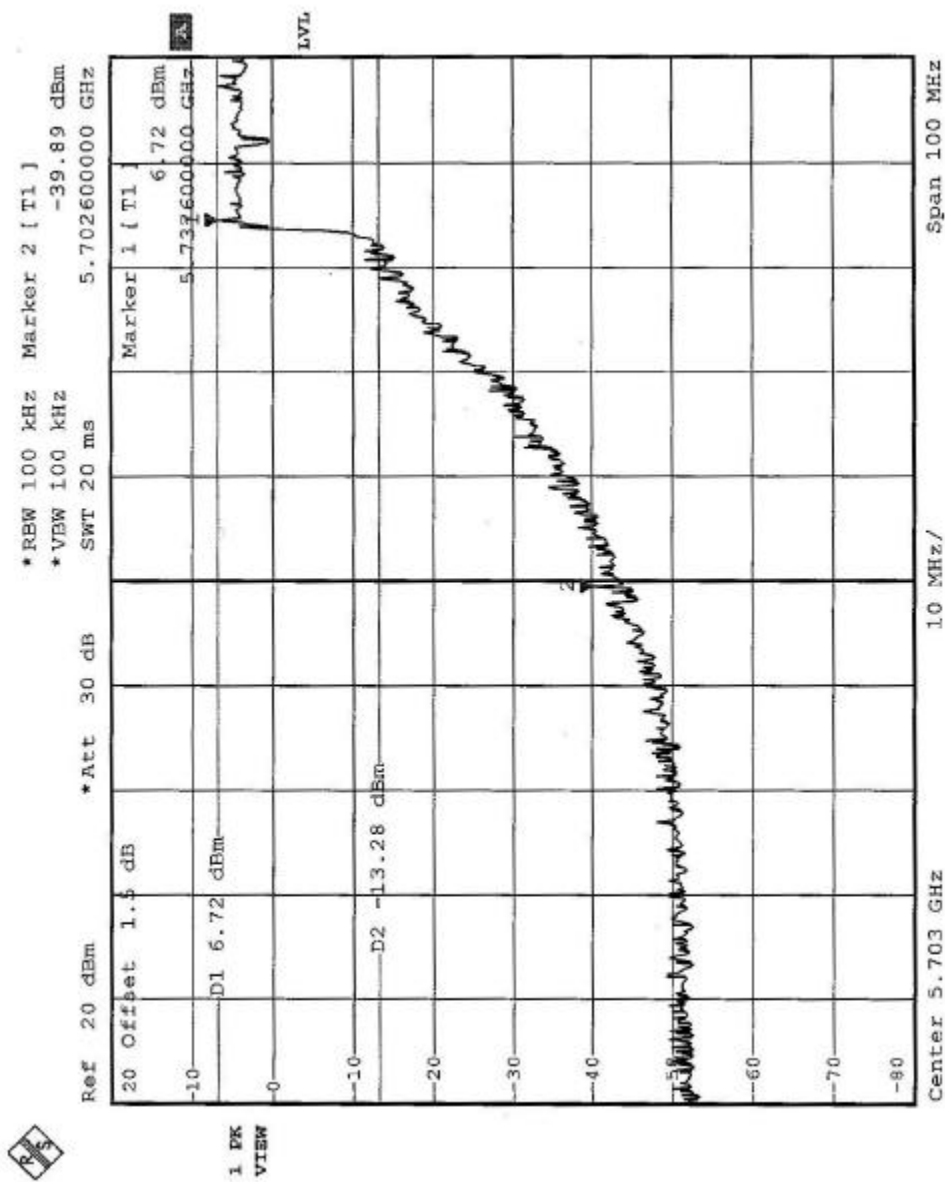
Turbo Mode

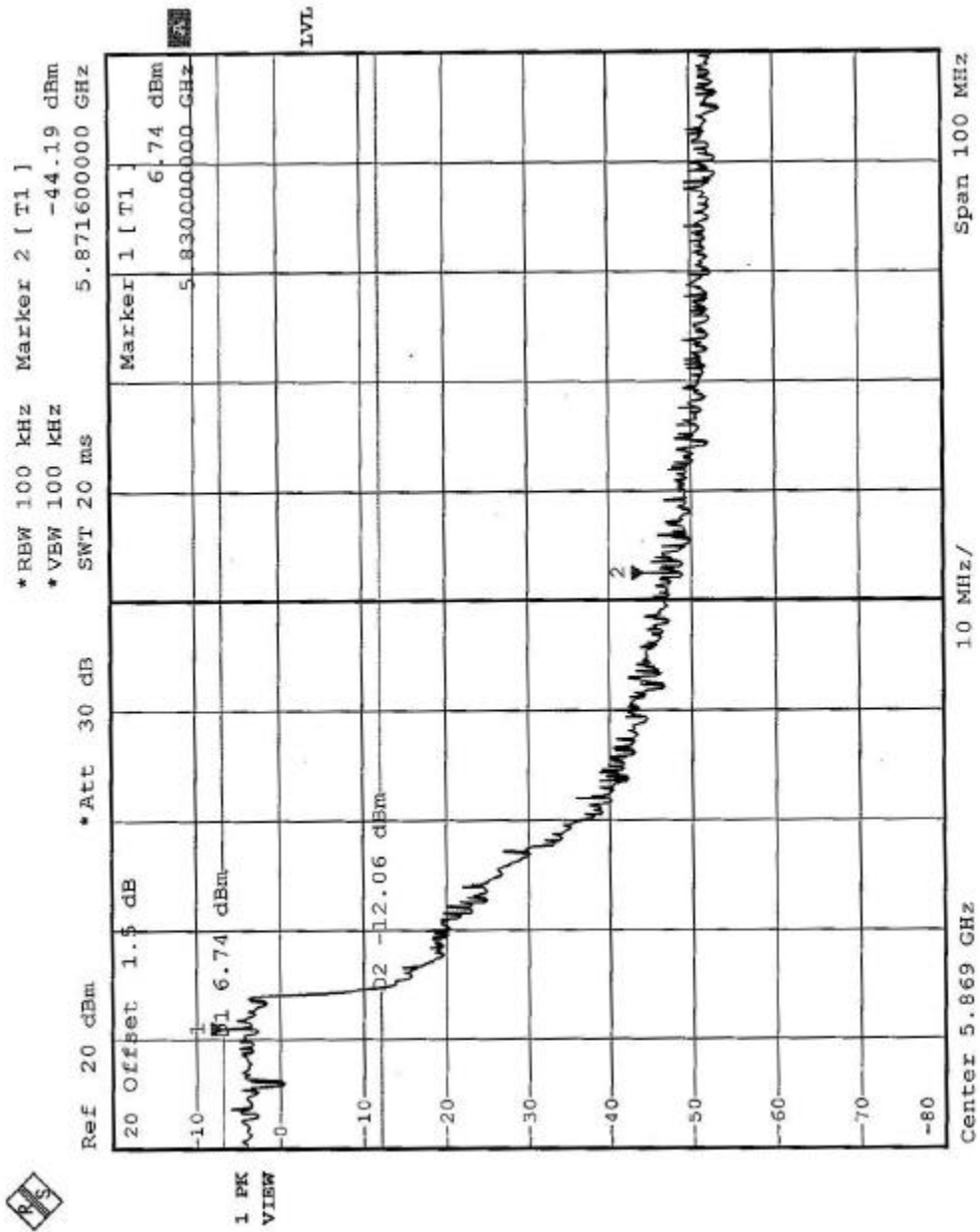






### Antenna 3 Normal Mode

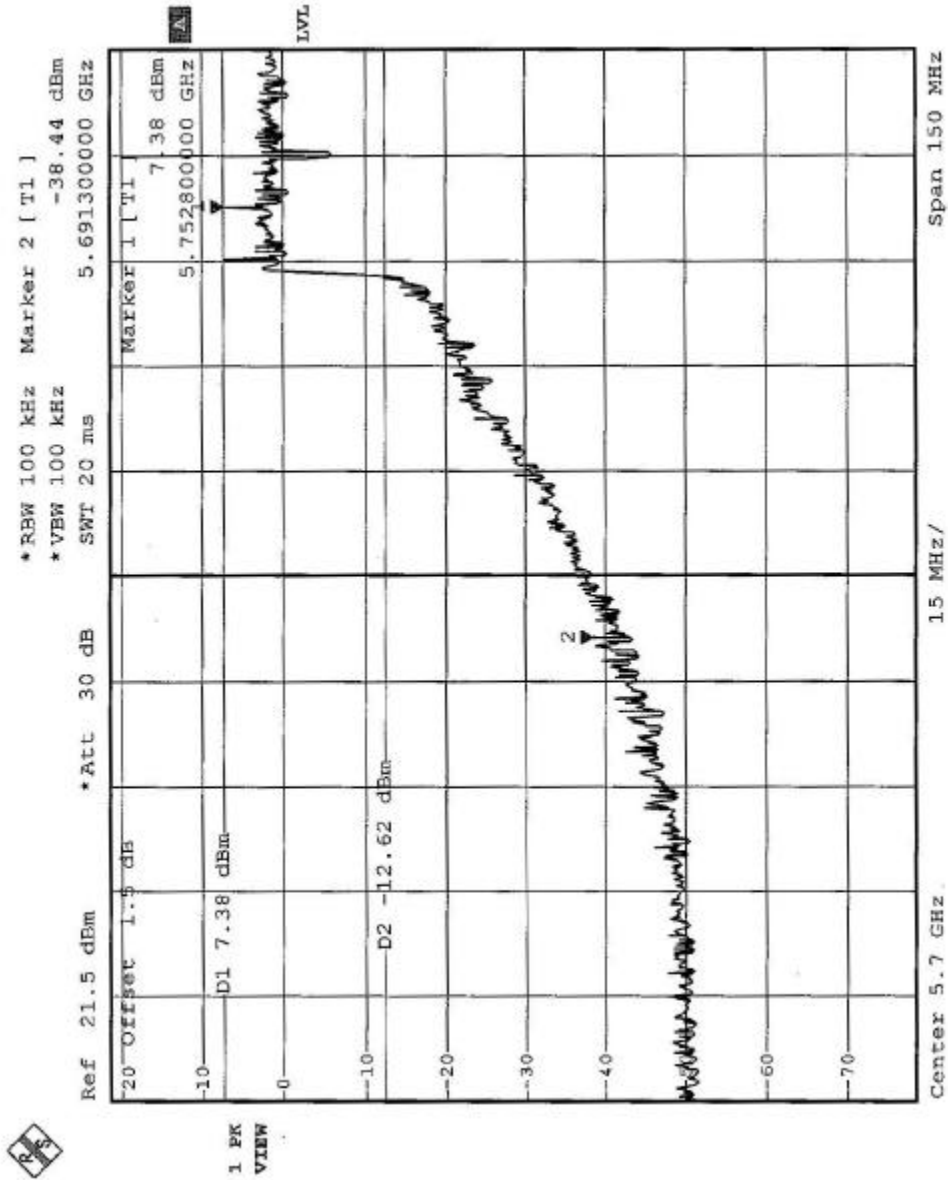


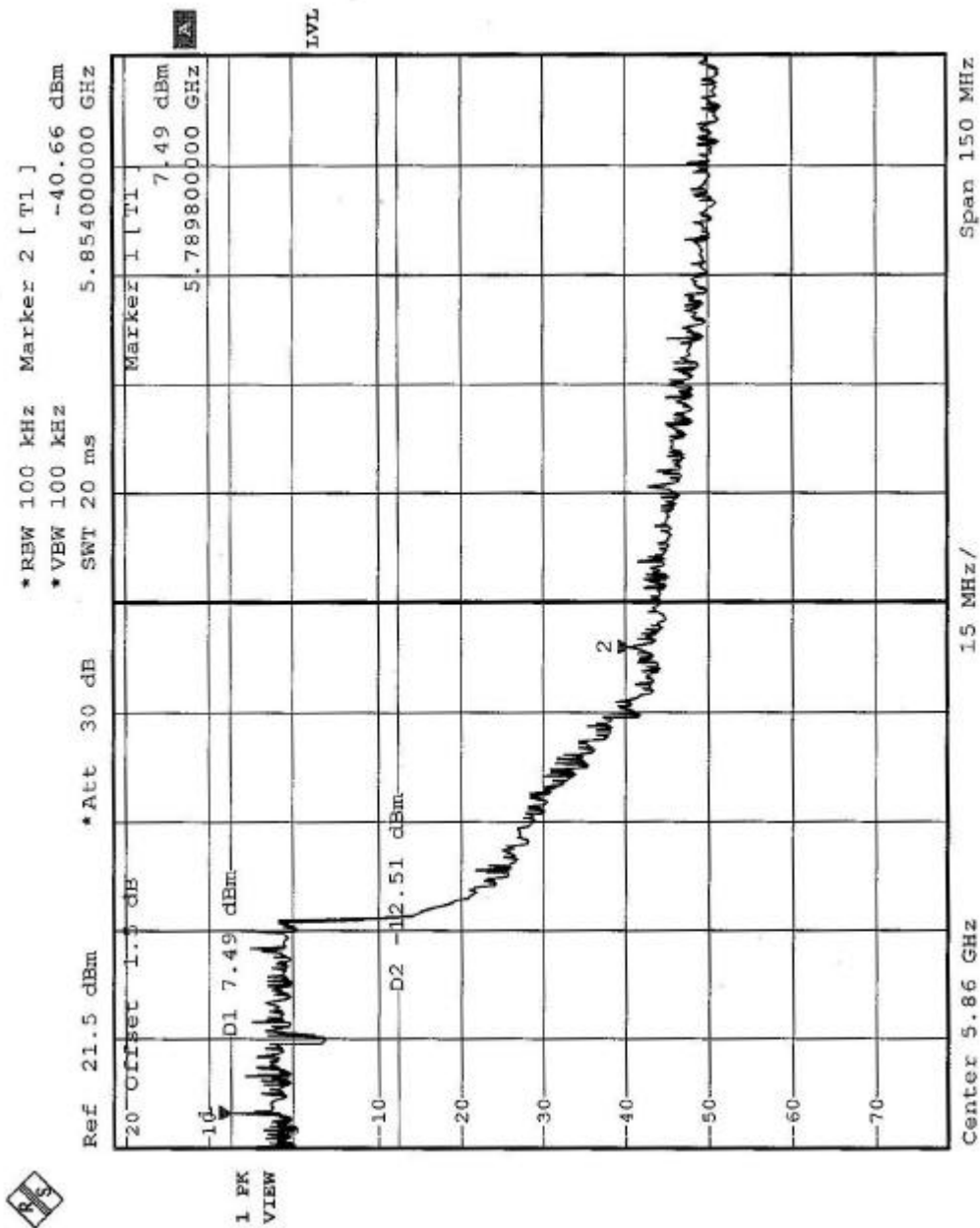






Turbo Mode

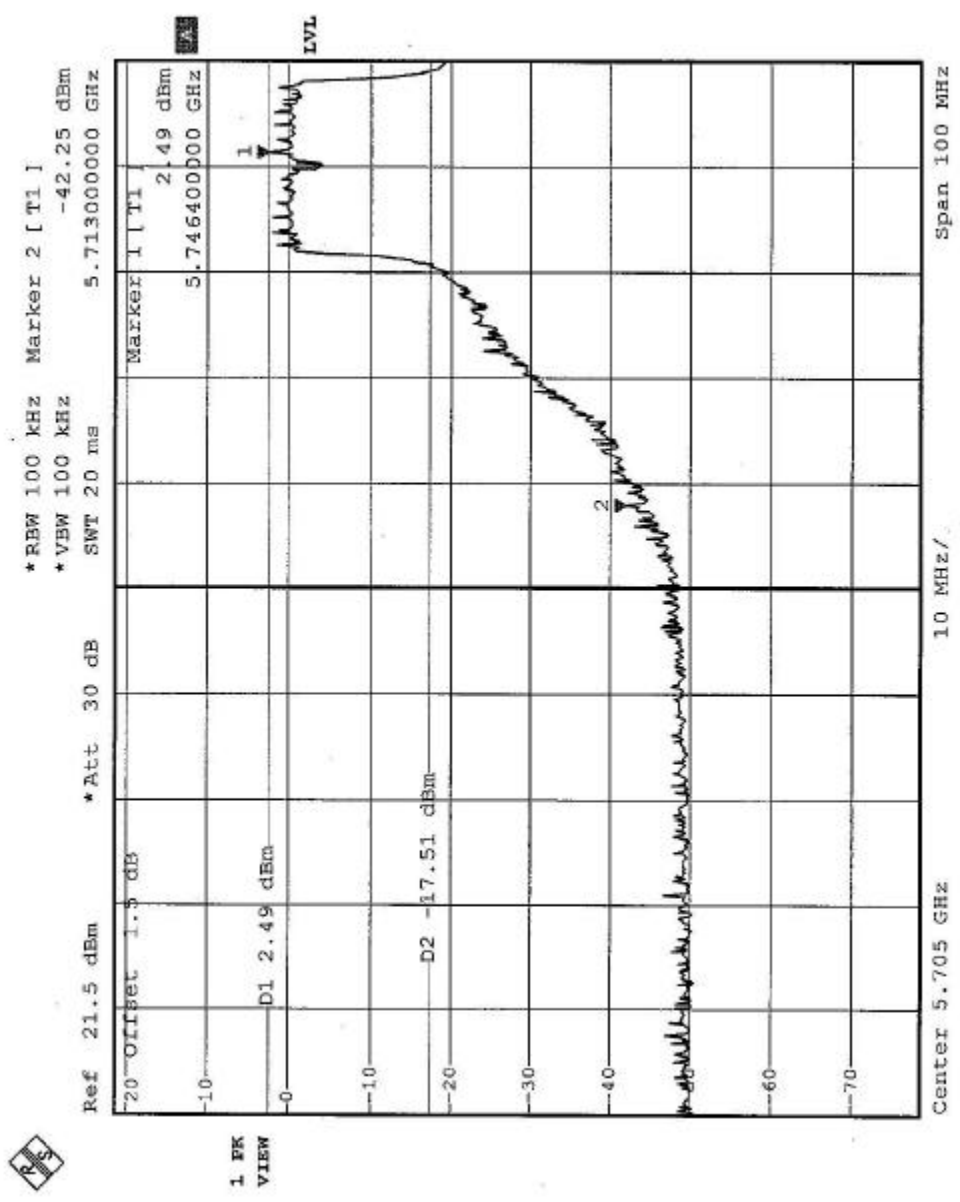


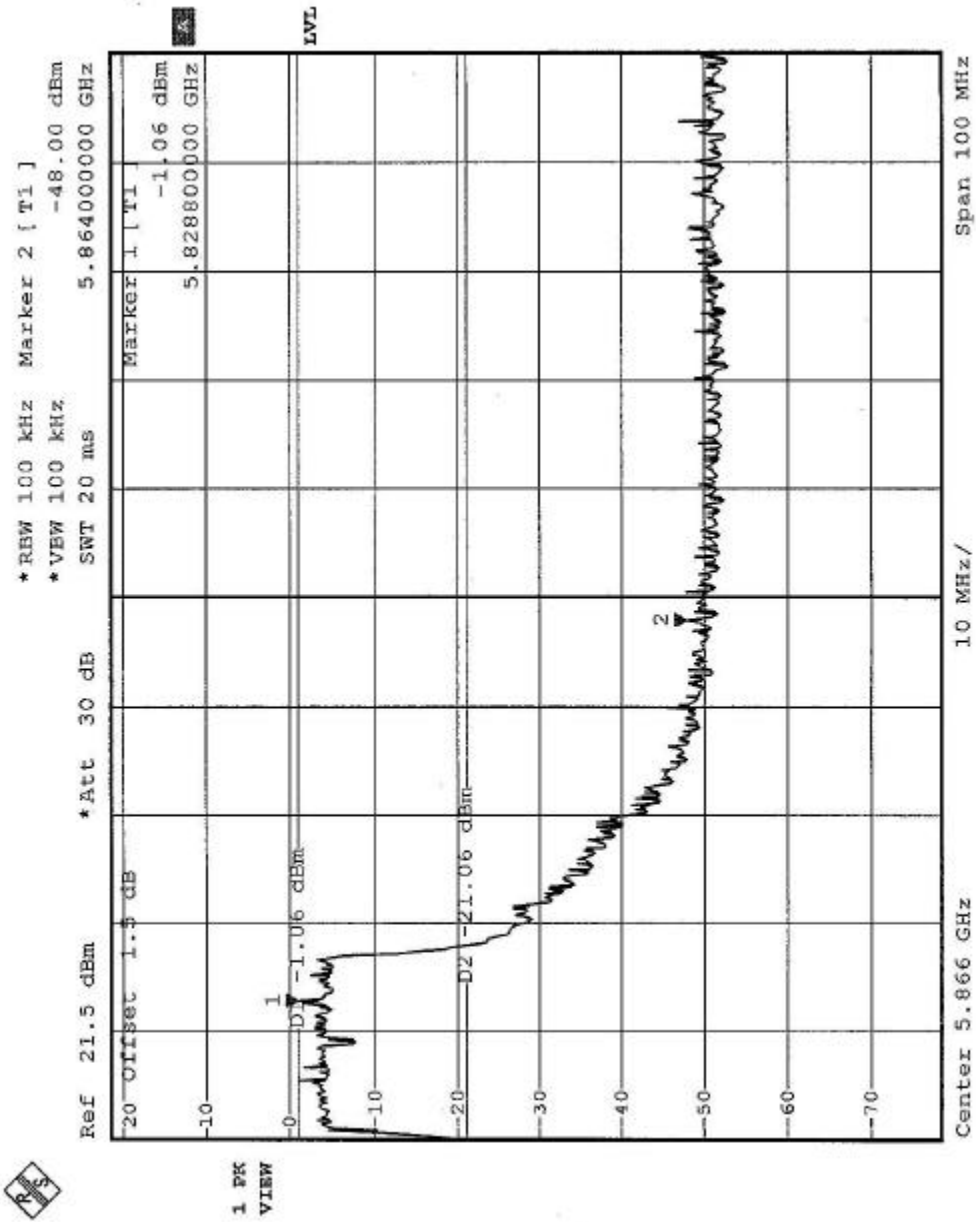




# Antenna 5

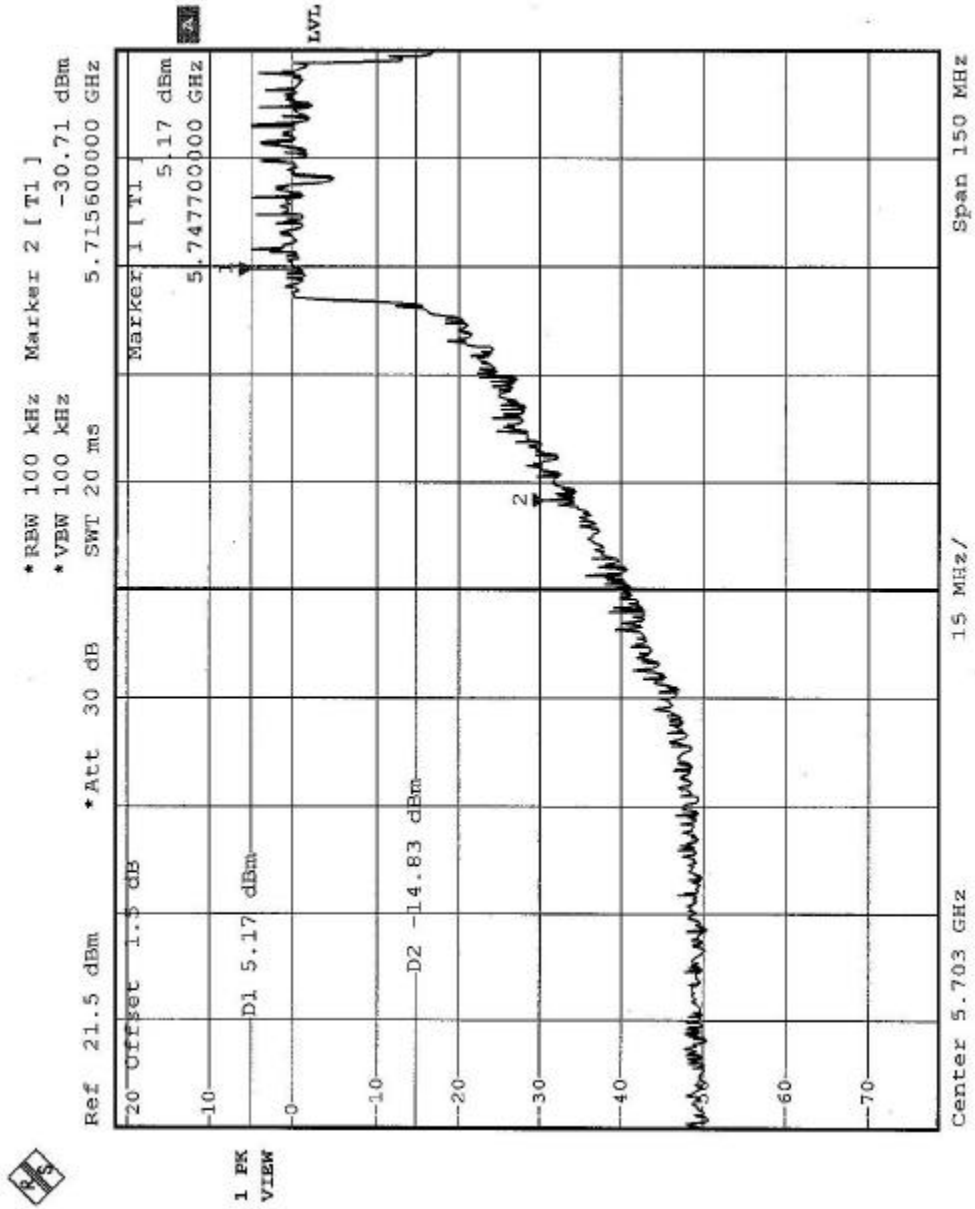
Normal Mode

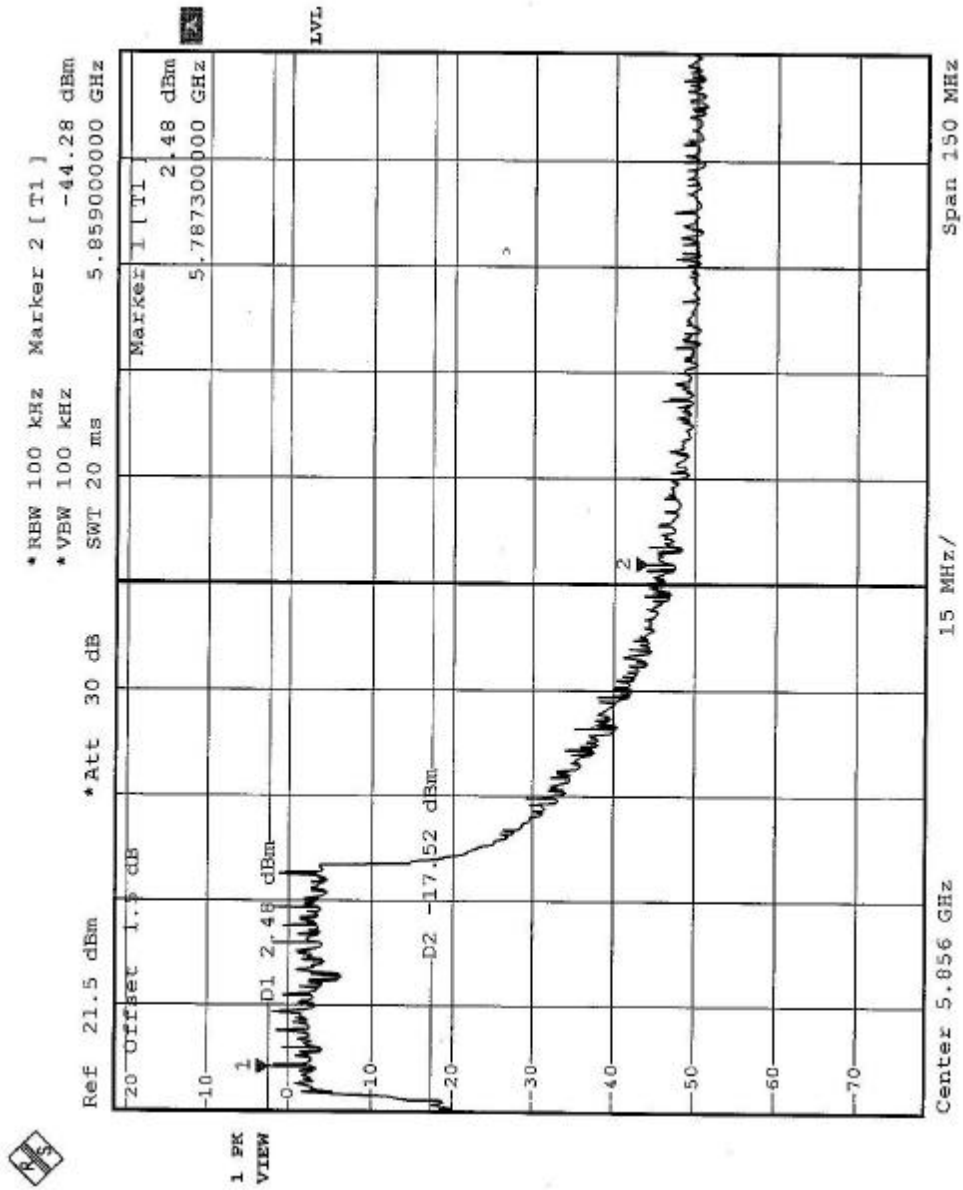






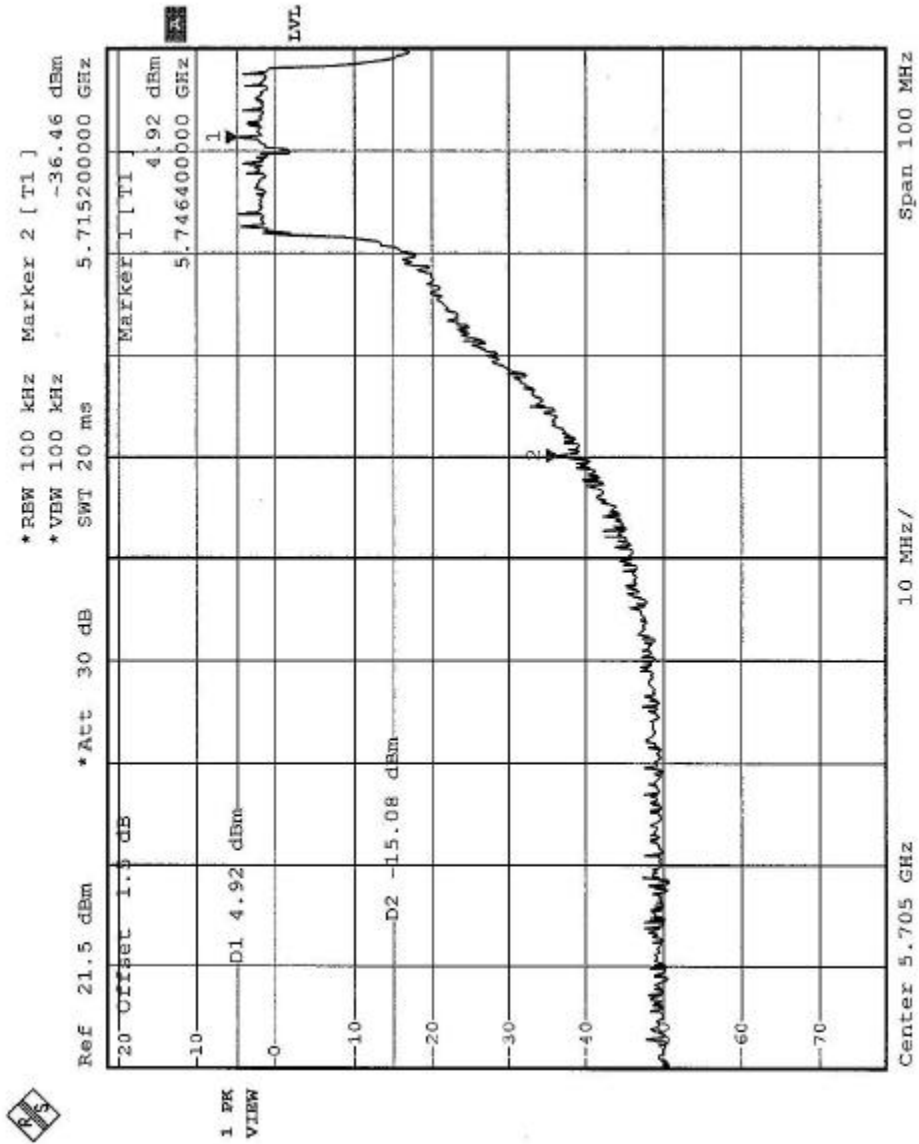
Turbo Mode

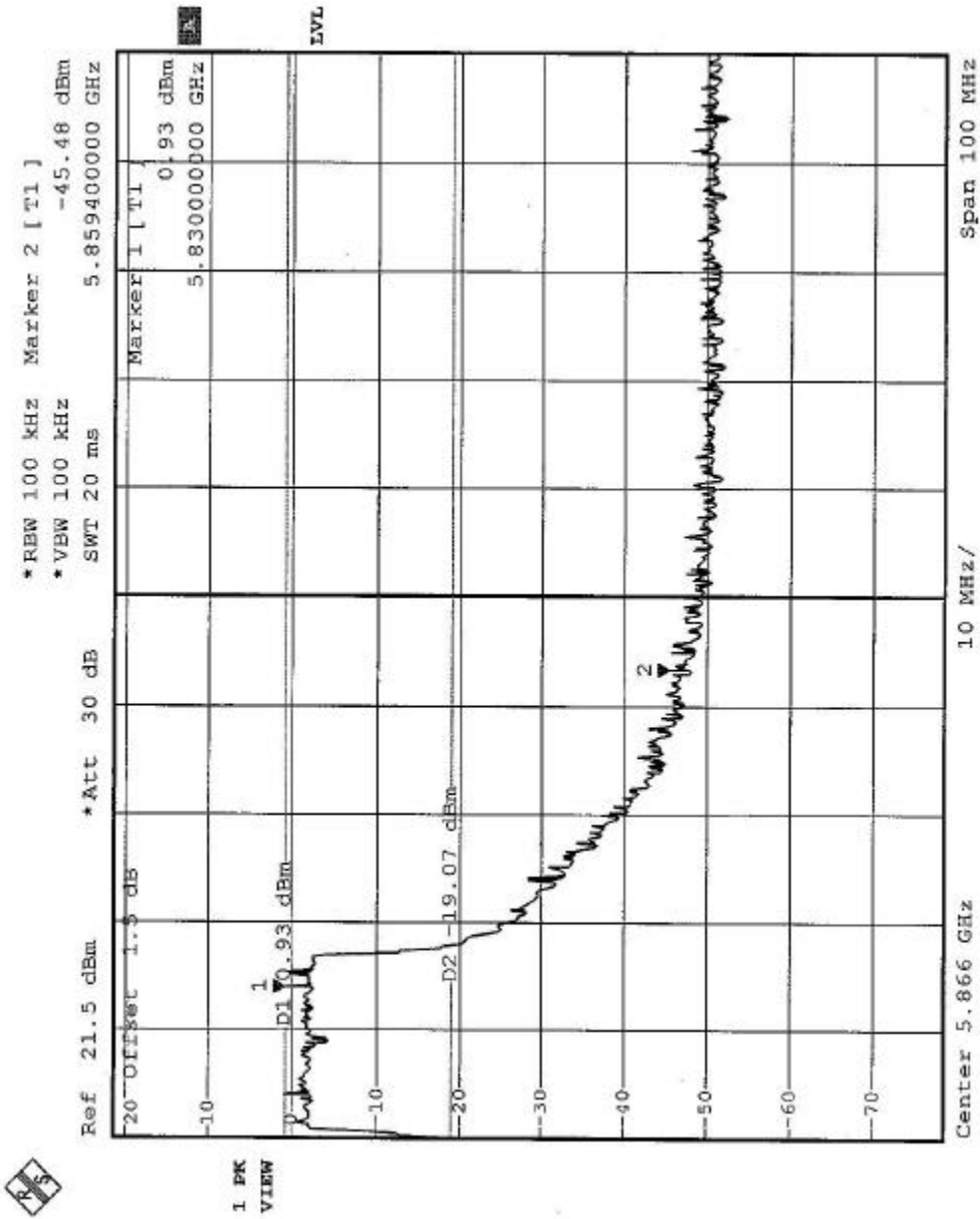






### Antenna 6 Normal Mode

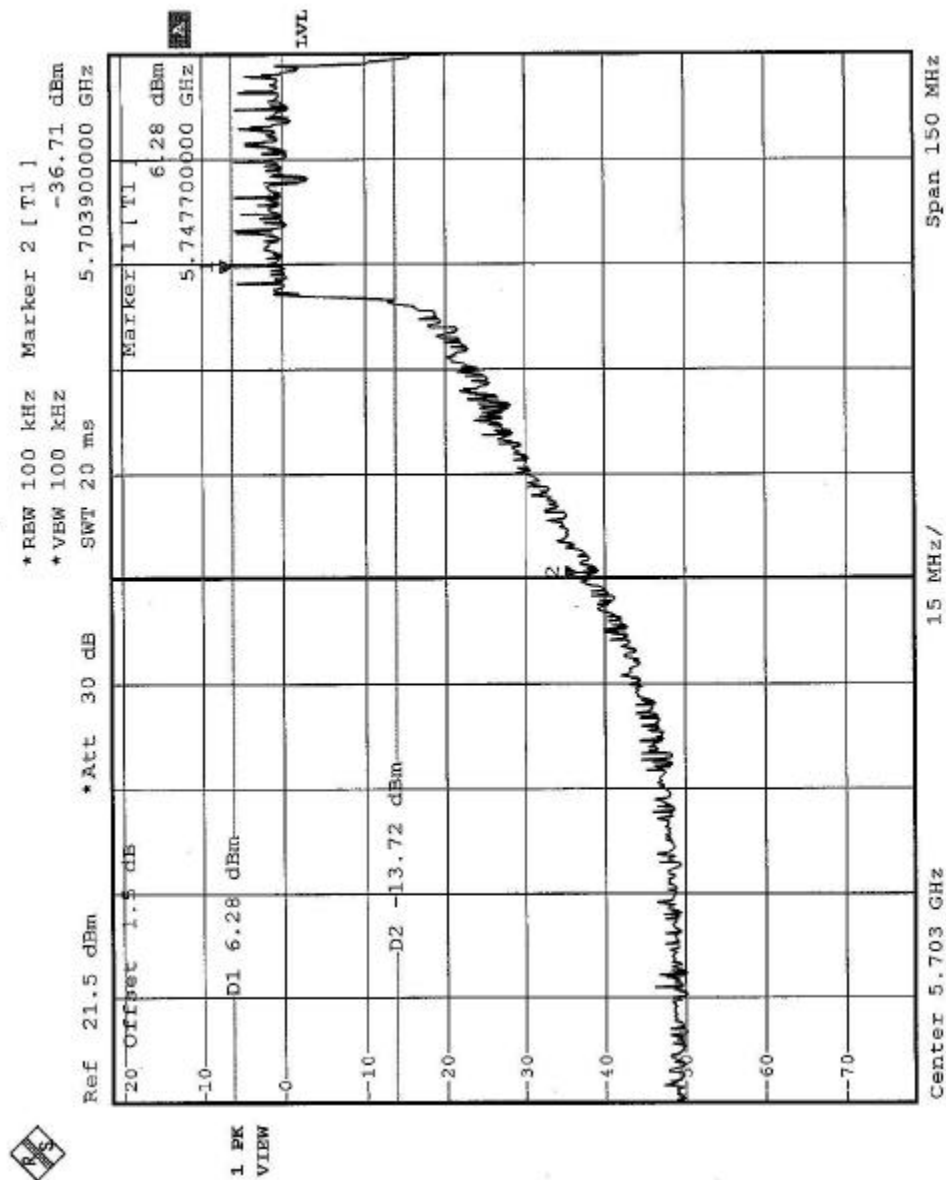


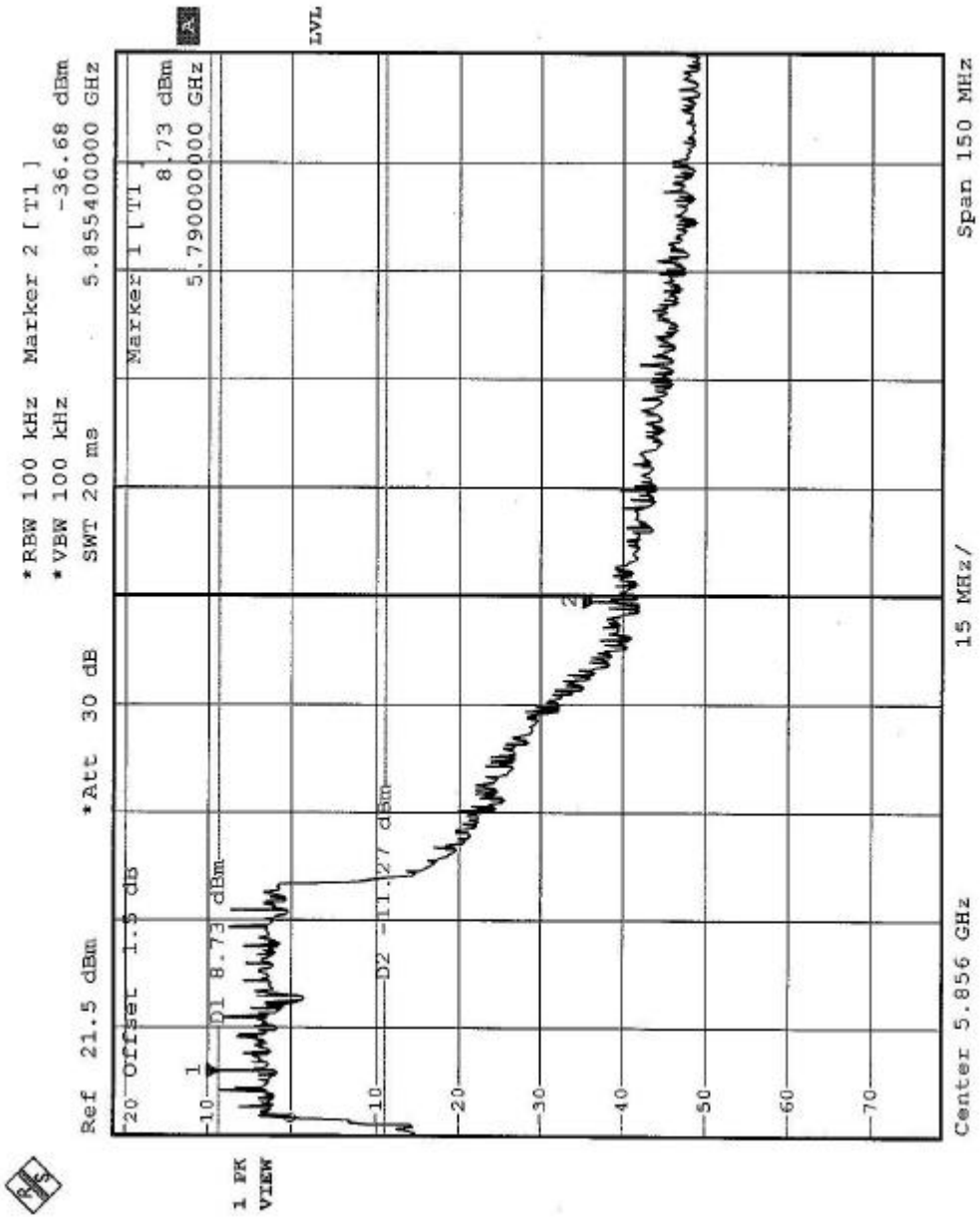






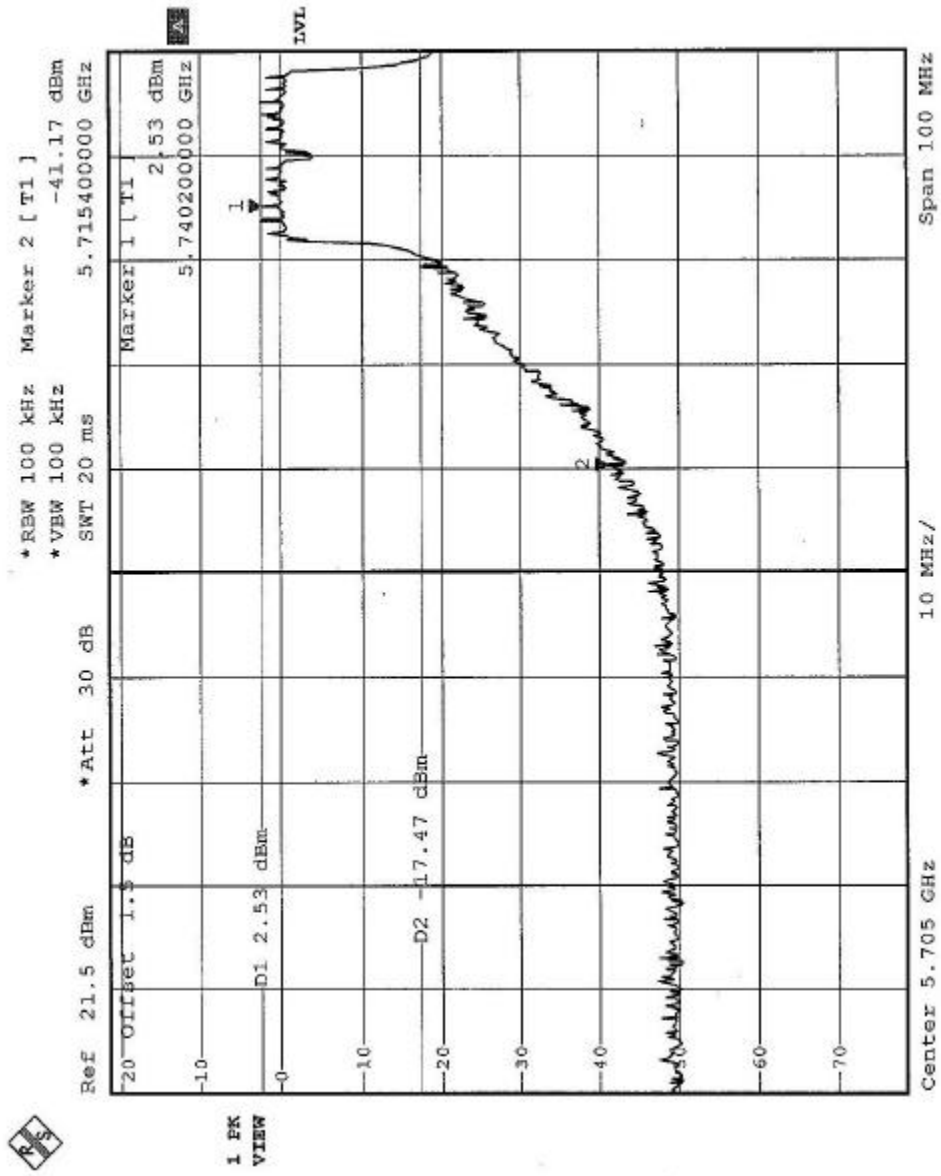
Turbo Mode

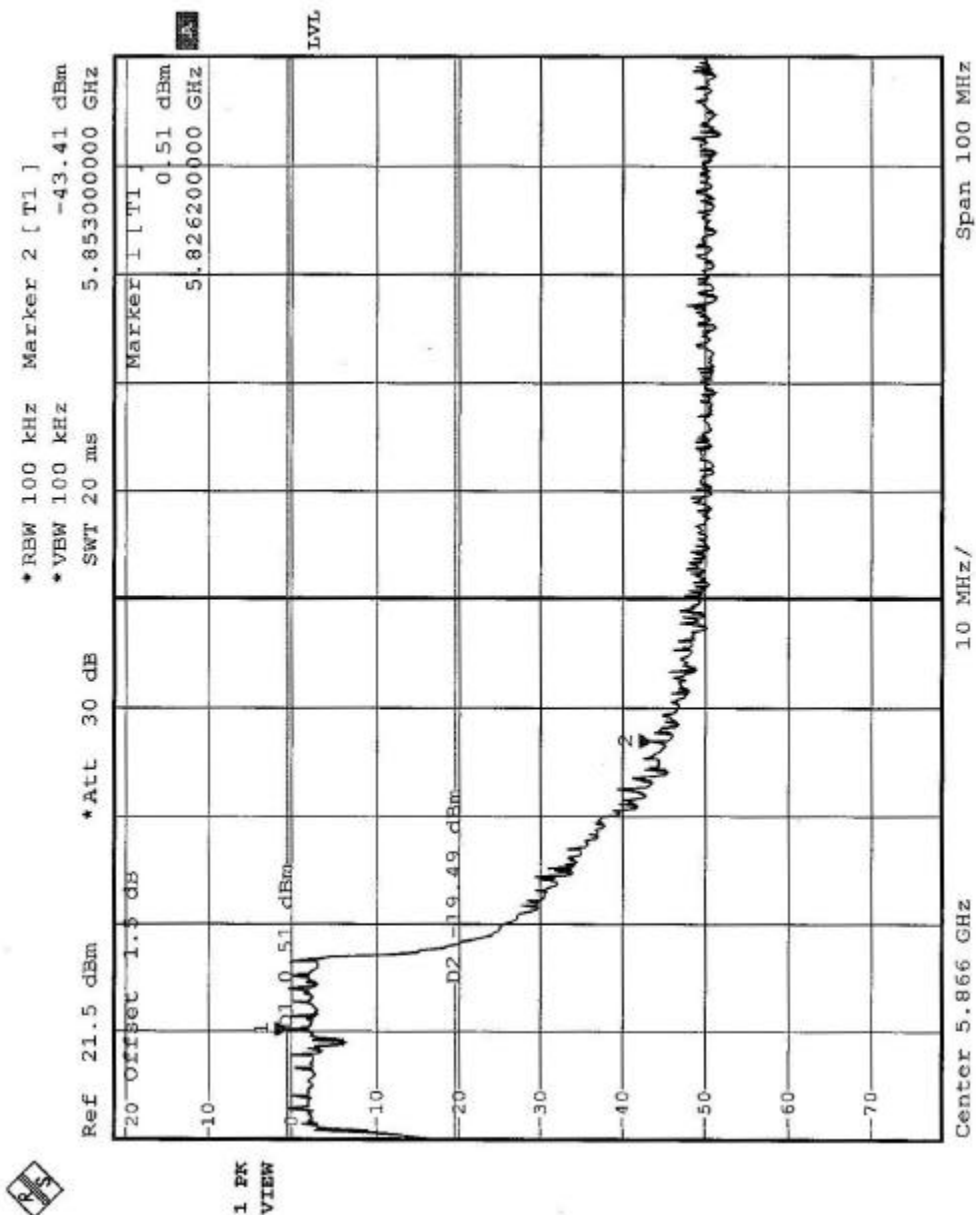






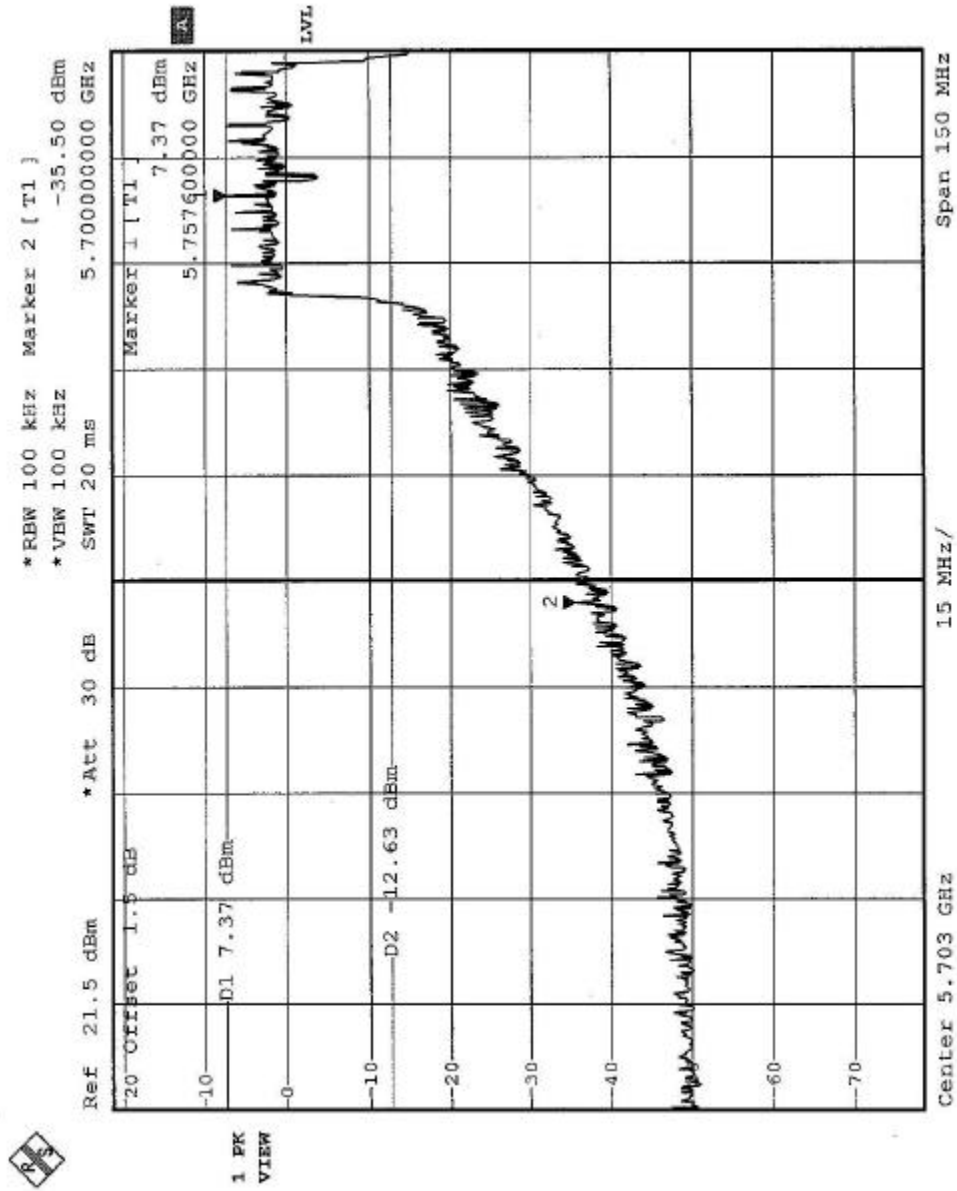
**Antenna 7**  
Normal Mode

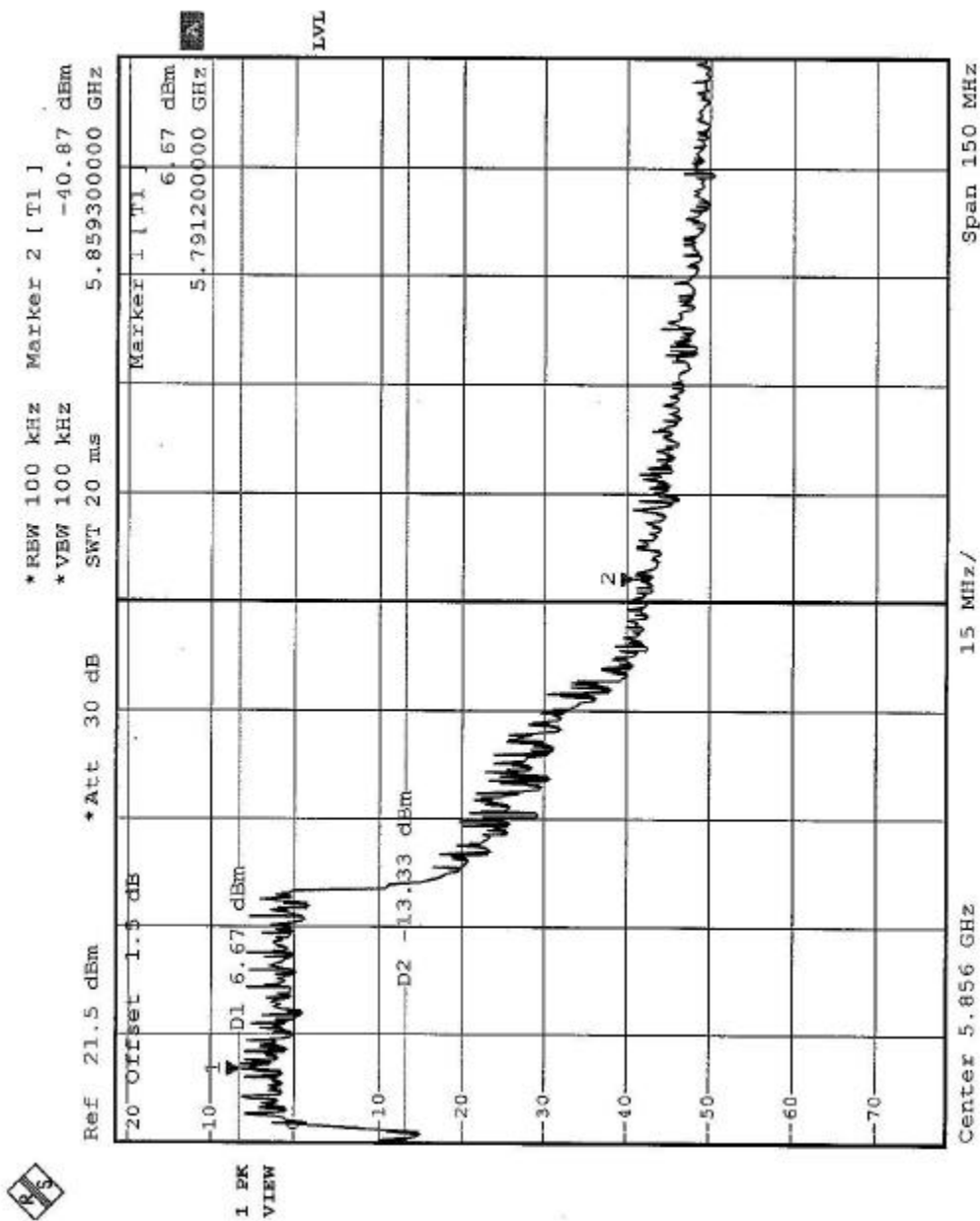






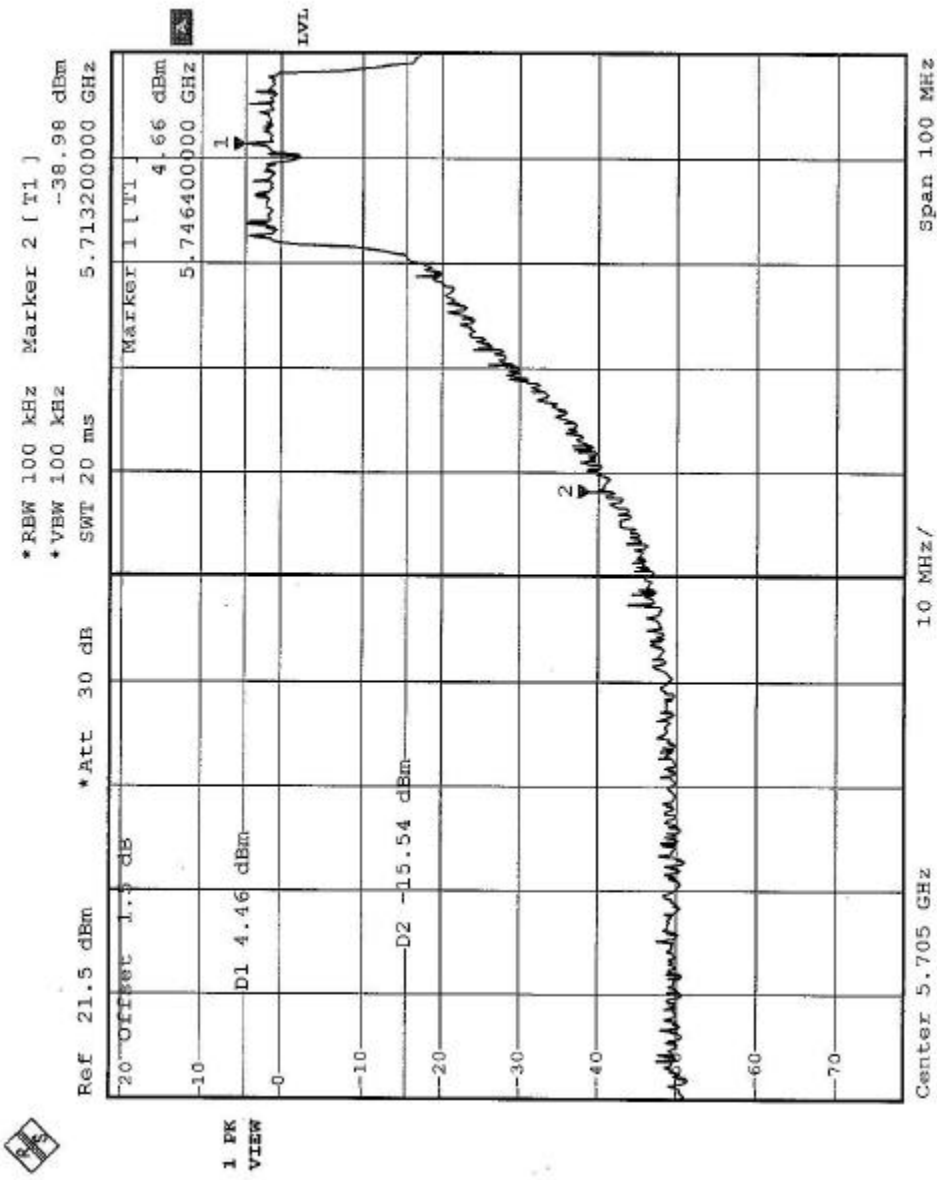
Turbo Mode

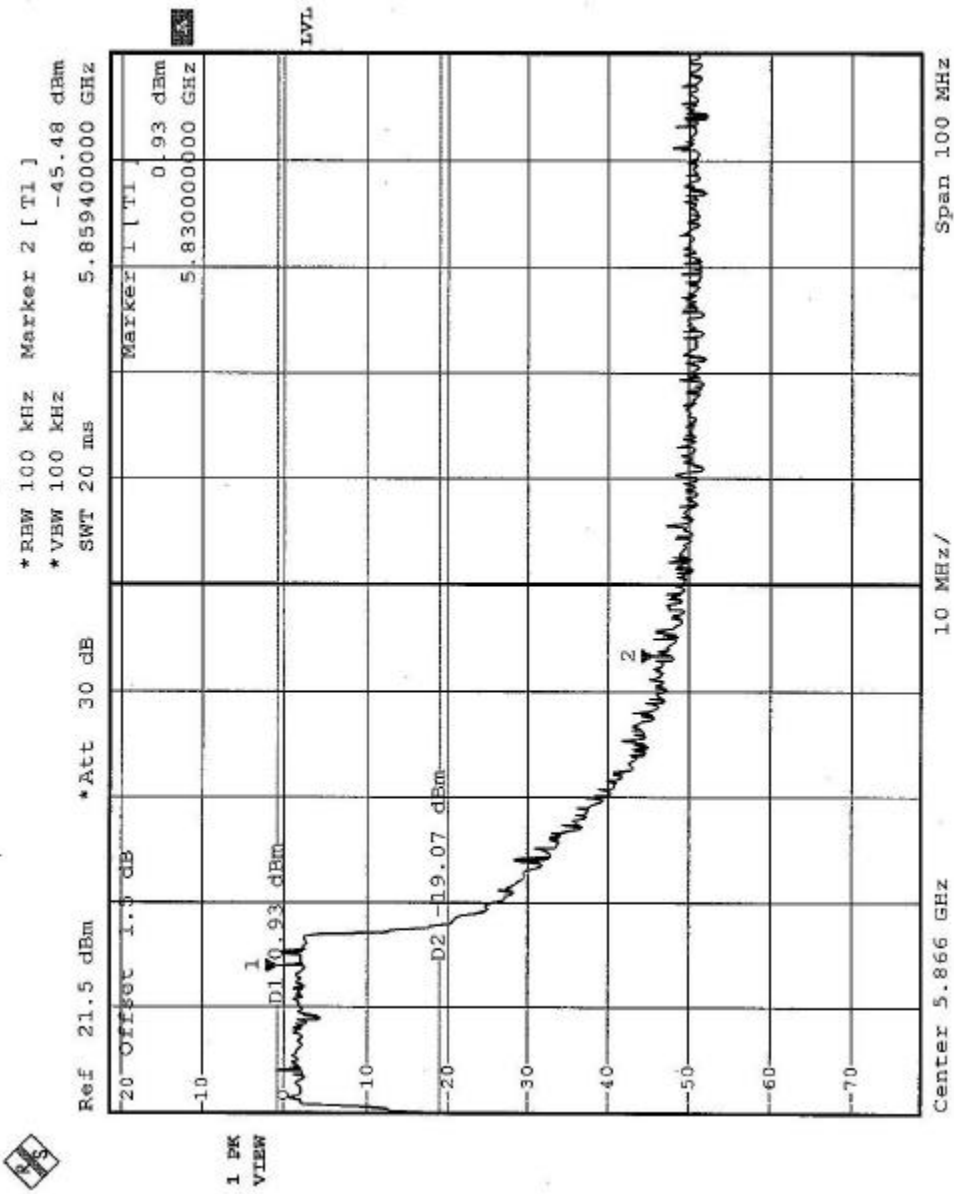






### Antenna 8 Normal Mode

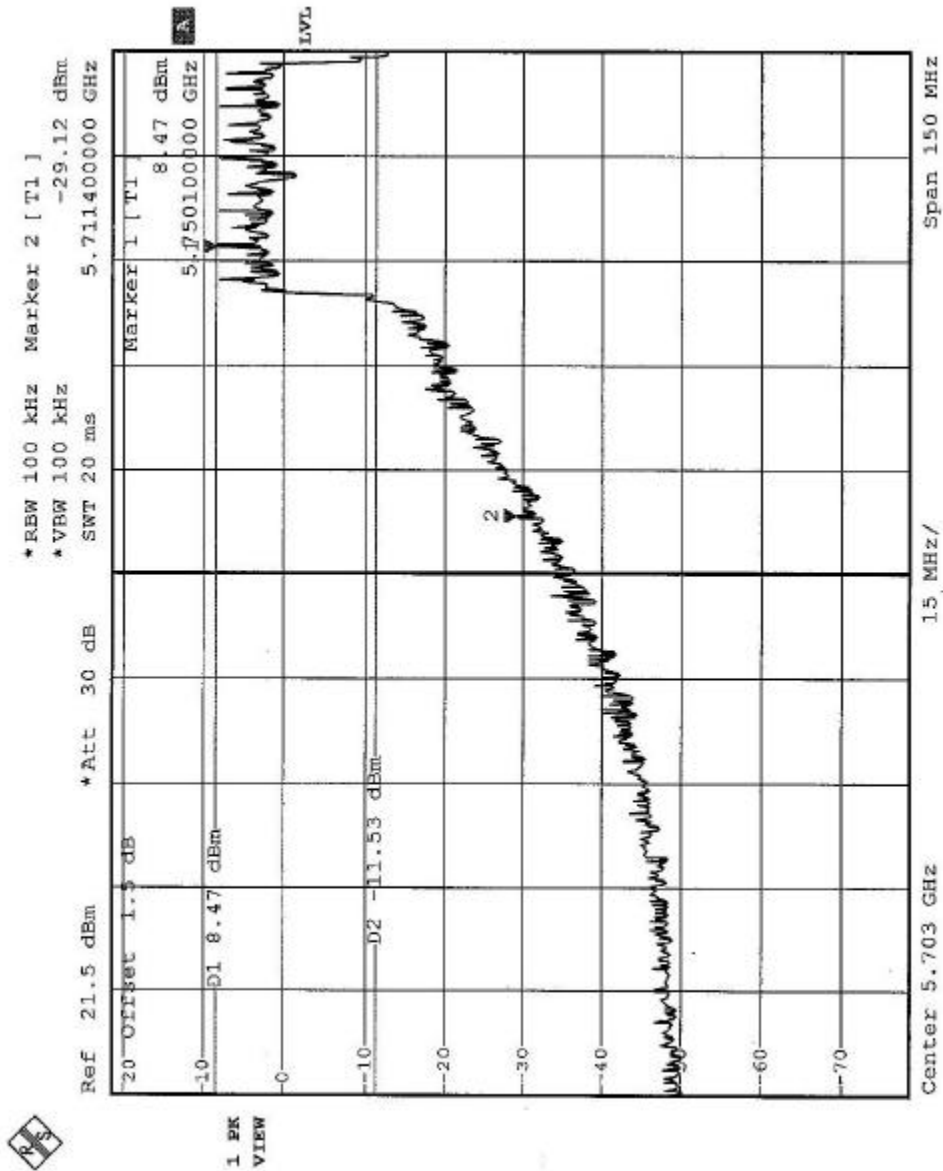


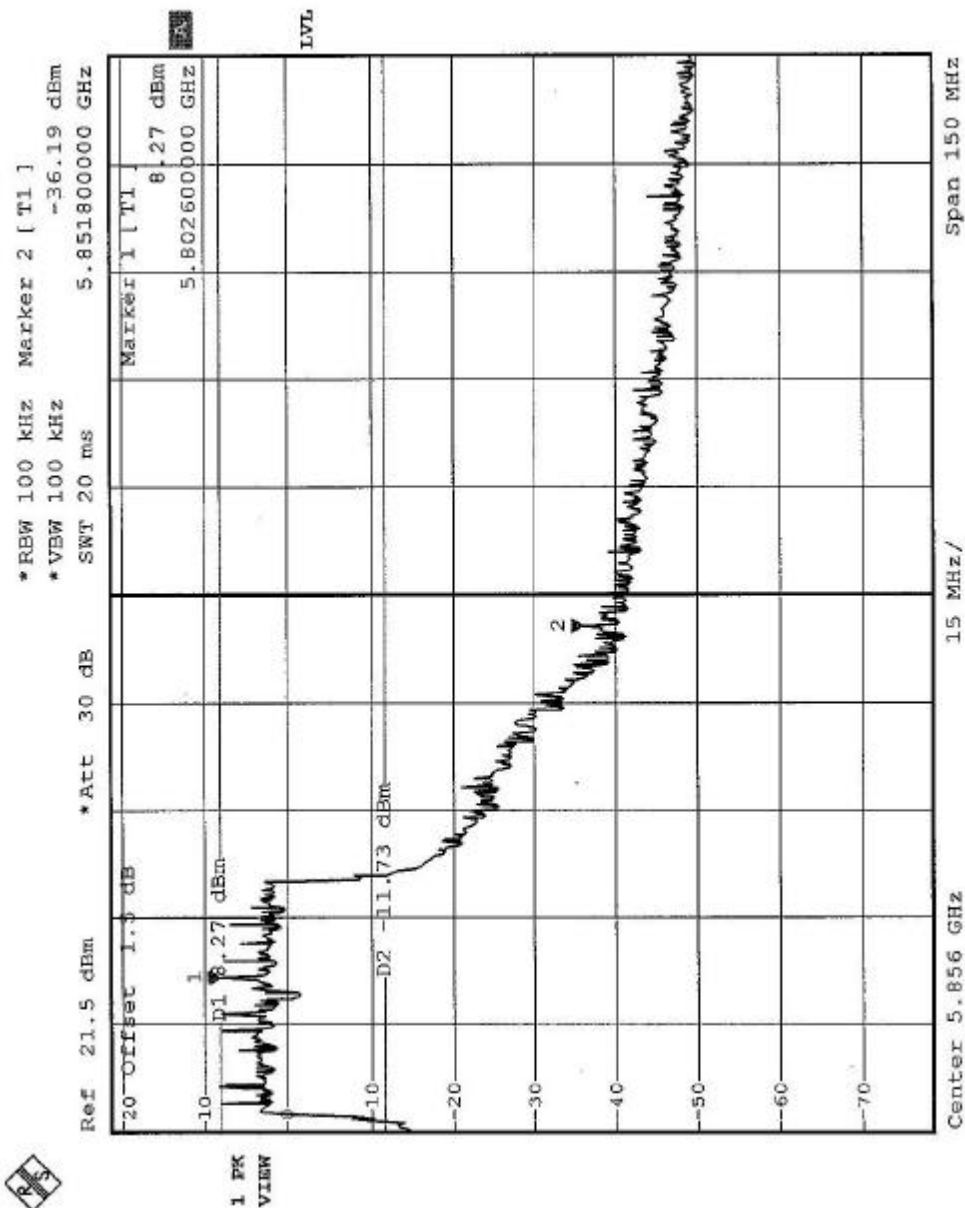






Turbo Mode







## **5.11 ANTENNA REQUIREMENT**

### **5.11.1 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.

### **5.11.2 ANTENNA CONNECTED CONSTRUCTION**

The antennas used in this product are Dual-Band Omni-Directional Antenna with Aliner 31-401A R/A plug connector and Chip Antenna without connector and Omni, Sector, Panel, Parabol Antennas with female N-type connectors.

Antenna 1: The maximum Gain of the antenna is 3.5dBi.

Antenna 2: The maximum Gain of the antenna is 3.0dBi.

Antenna 3: The maximum Gain of the antenna is 4.0dBi.

Antenna 4: The maximum Gain of the antenna is 13.0dBi.

Antenna 5: The maximum Gain of the antenna is 17.0dBi.

Antenna 6: The maximum Gain of the antenna is 28.2dBi.

Antenna 7: The maximum Gain of the antenna is 33.4dBi.

Antenna 8: The maximum Gain of the antenna is 13.0dBi.

## 6. PHOTOGRAPHS OF THE TEST CONFIGURATION CONDUCTED EMISSION TEST

Adapter 1



### Adapter 2



POE



RADIATED EMISSION TEST  
Antenna 1 (For 2.4GHz & 5GHz)

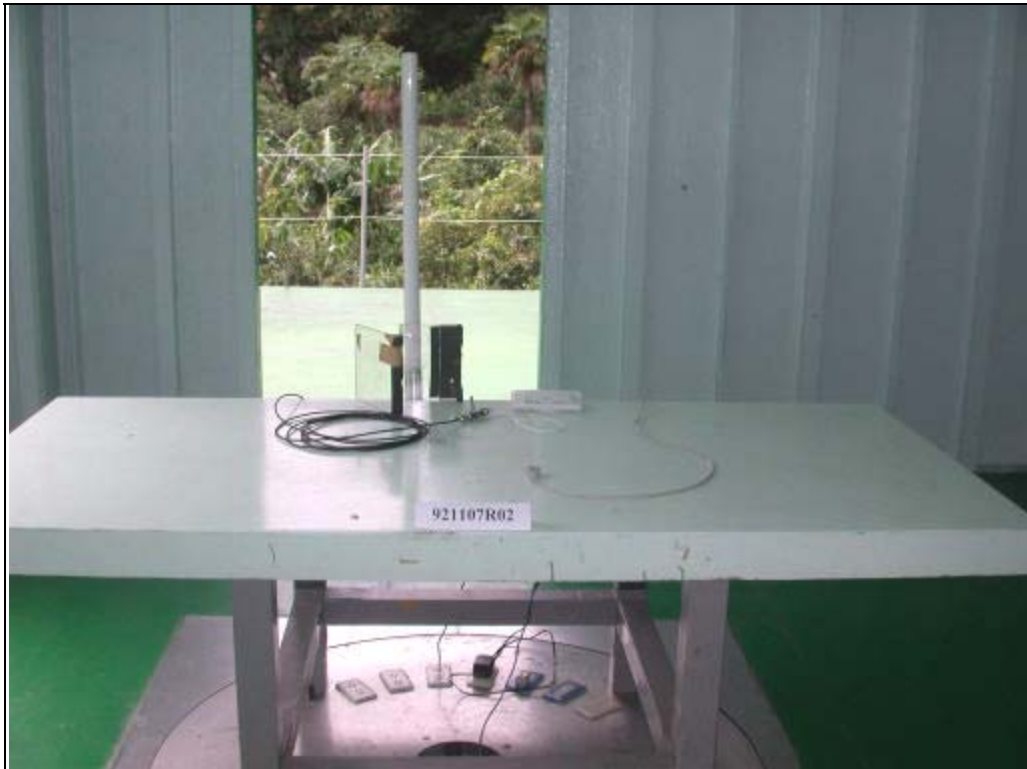


Antenna 2 and 3 (For 2.4GHz & 5GHz)





Antenna 4 (For 2.4GHz)



### Antenna 5 (For 2.4GHz)



Antenna 6 (For 2.4GHz)



Antenna 7 (For 2.4GHz)



### Antenna 4 (For 5GHz)



Antenna 5 (For 5GHz)



Antenna 7 (For 5GHz)



Antenna 8 (For 5GHz)







## 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:

<b>USA</b>	FCC, NVLAP, UL
<b>Germany</b>	TUV Rheinland
<b>Japan</b>	VCCI
<b>New Zealand</b>	MoC
<b>Norway</b>	NEMKO
<b>R.O.C.</b>	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](http://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

**Lin Kou Safety Lab:**

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Fax: 886-2-26093184

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**Web Site:** [www.adt.com.tw](http://www.adt.com.tw)

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