

# 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 26dB emission bandwidth in MHz.

## 5.3.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
SPECTRUM ANALYZER	FSEK30	100049	July 24, 2004

#### 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

- 4. The transmitter output was connected to the spectrum analyzer.
- 5. Set span to encompass the entire emission bandwidth of the signal.
- 6. Set RBW to 1MHz, VBW to 300kHz.
- 7. 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

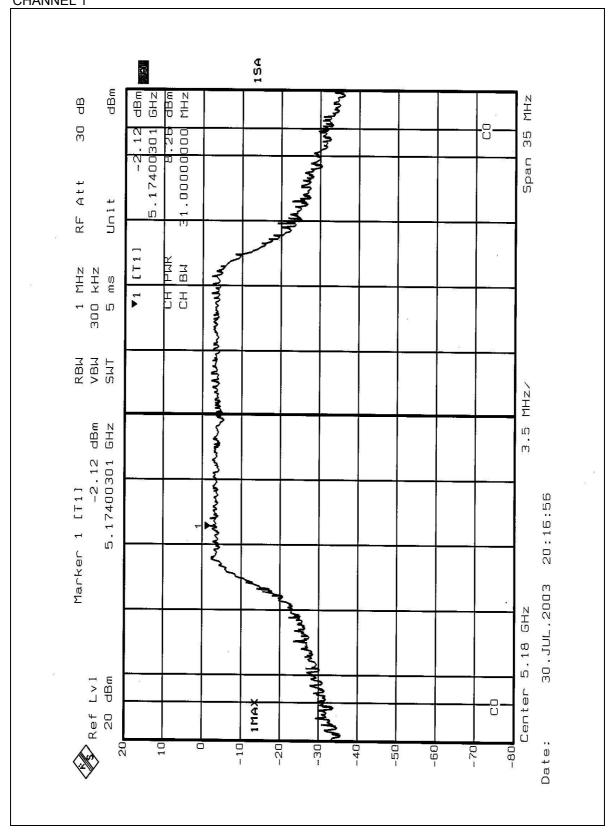
EUT	802.11a+802.11g Dual Band Wireless Access Point	MODEL	NL-5354AP Aries (AMG)
ENVIRONMENTAL CONDITIONS	28deg. C, 60%RH, 991 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Ansen Lei		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	26dBc Occupied Bandwidth (MHz)	PASS/FAIL
1	5180	8.26	17.00	30.86	PASS
4	5240	14.52	17.00	31.34	PASS
5	5260	16.25	24.00	30.62	PASS
8	5320	14.93	24.00	29.42	PASS
9	5745	17.82	30.00	34.31	PASS
12	5805	16.41	30.00	32.71	PASS

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

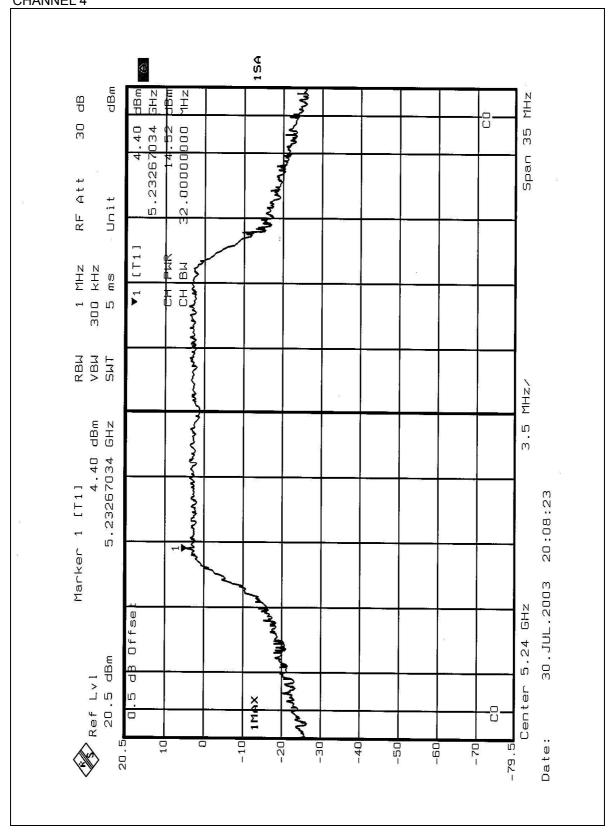






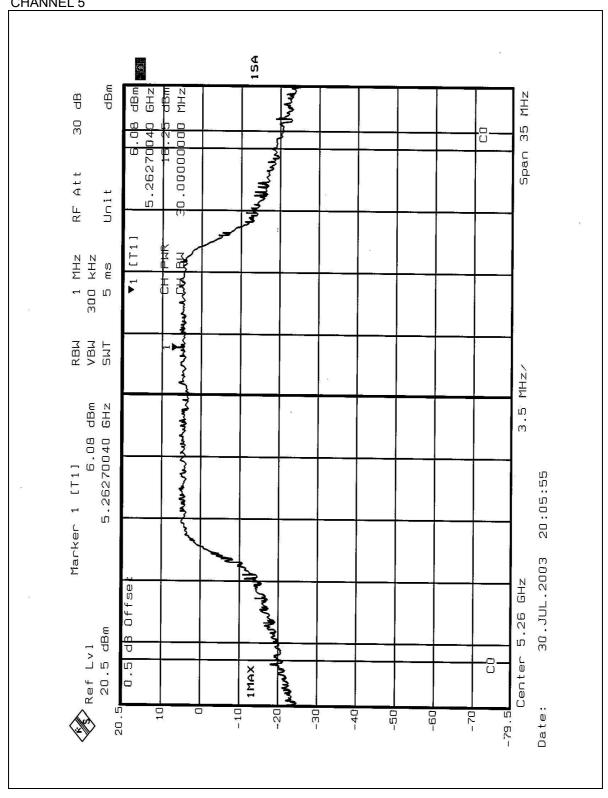




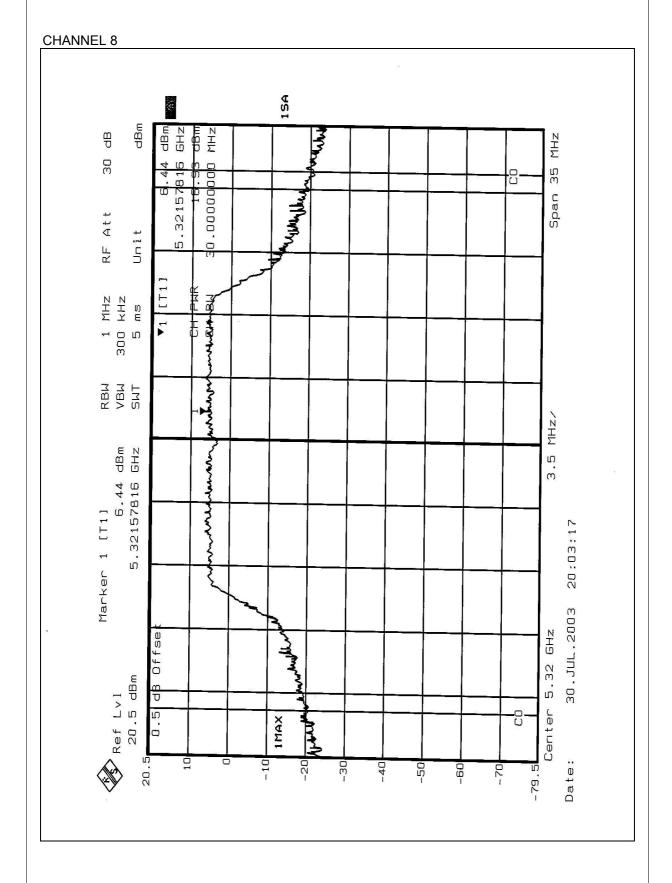




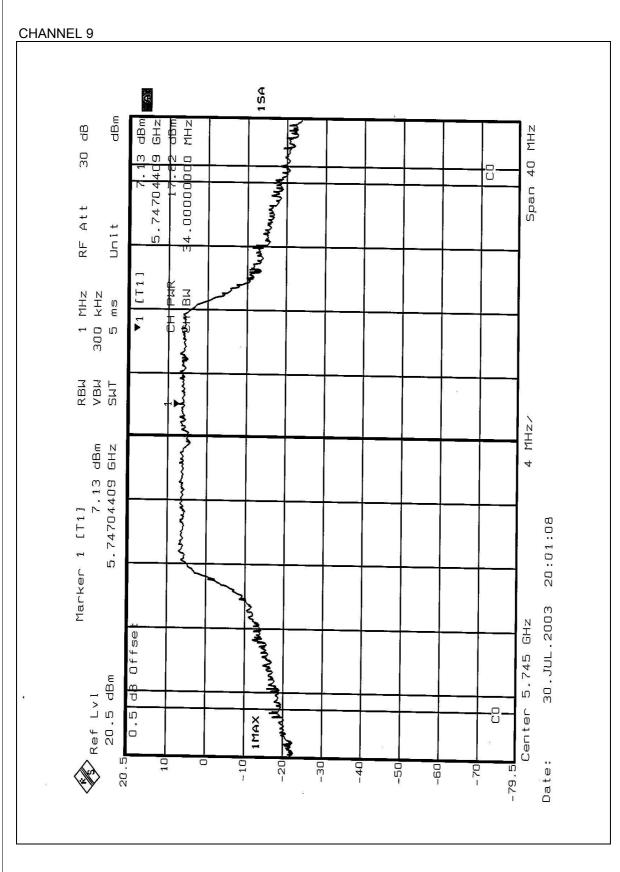






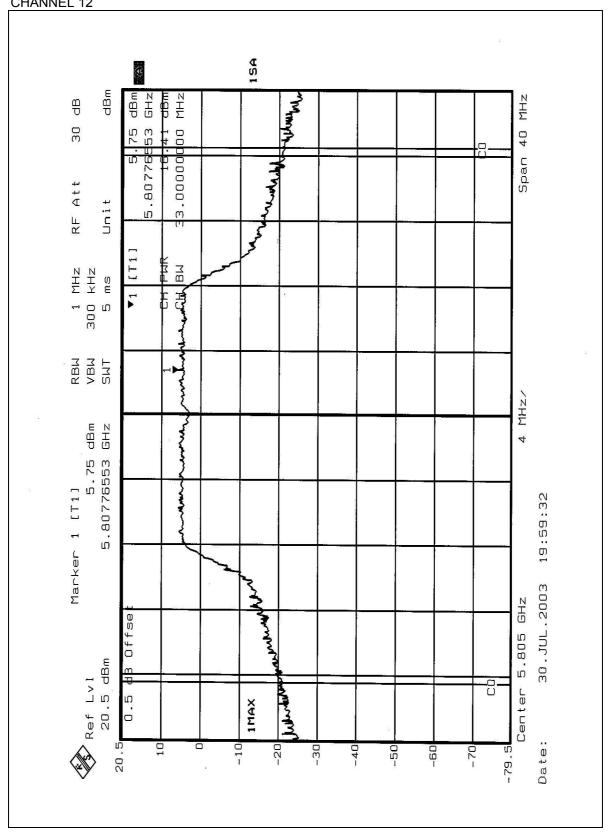






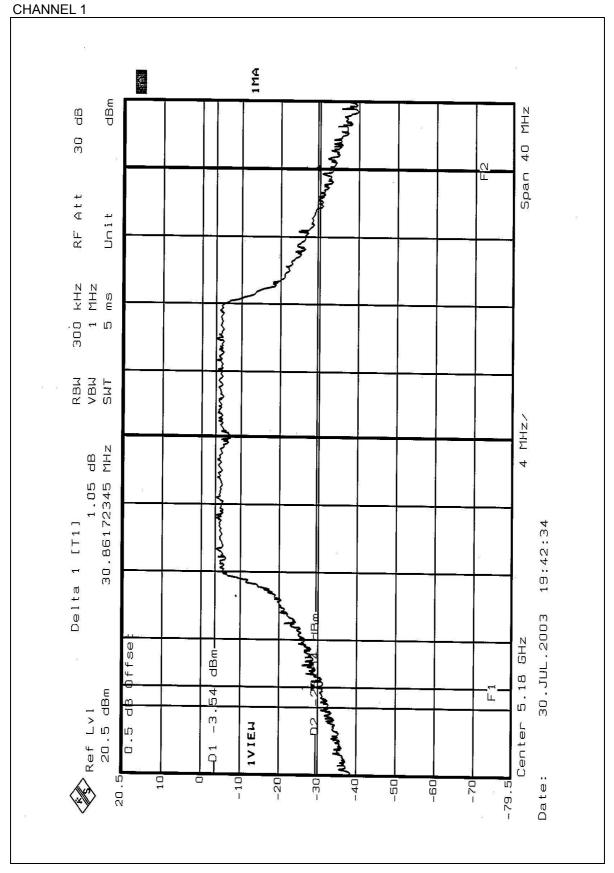


# **CHANNEL 12**



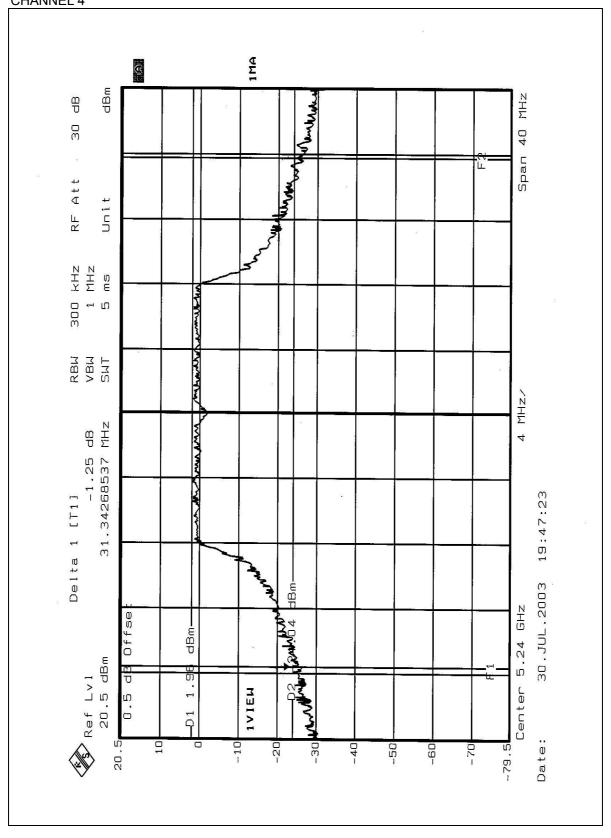






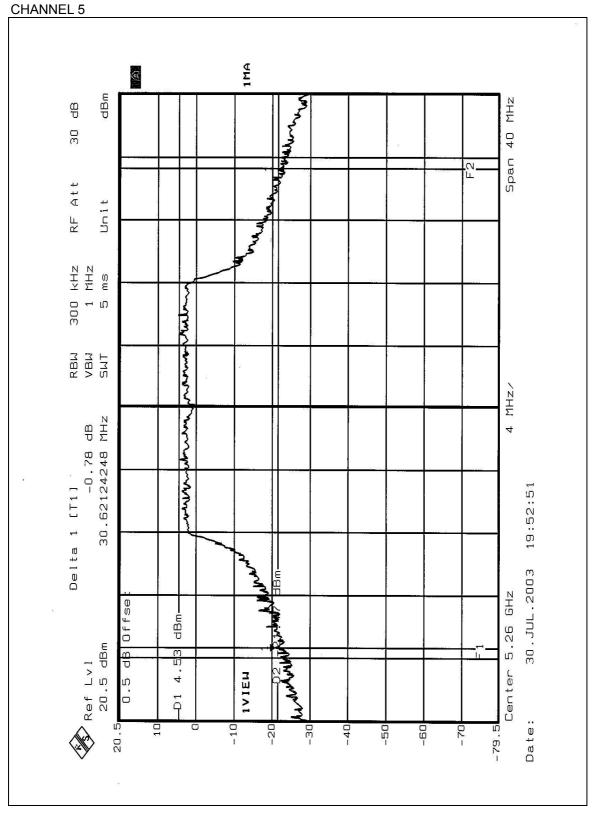






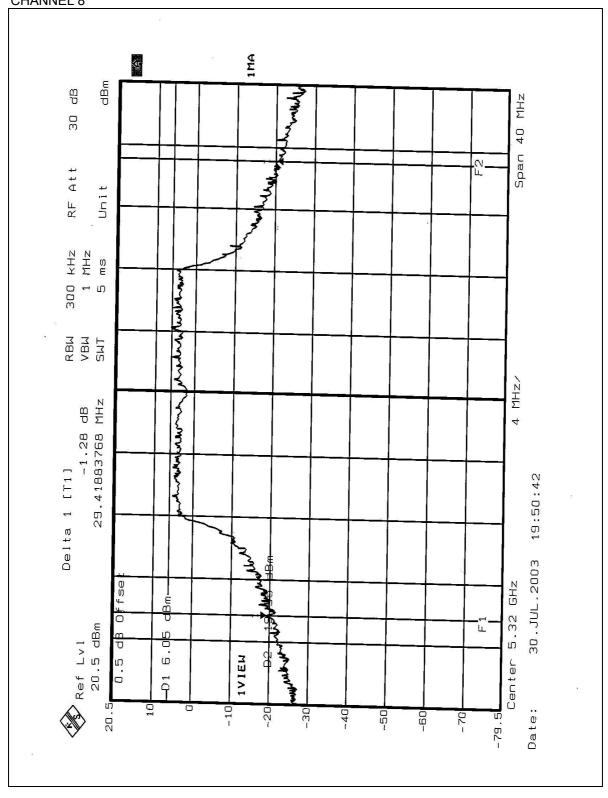






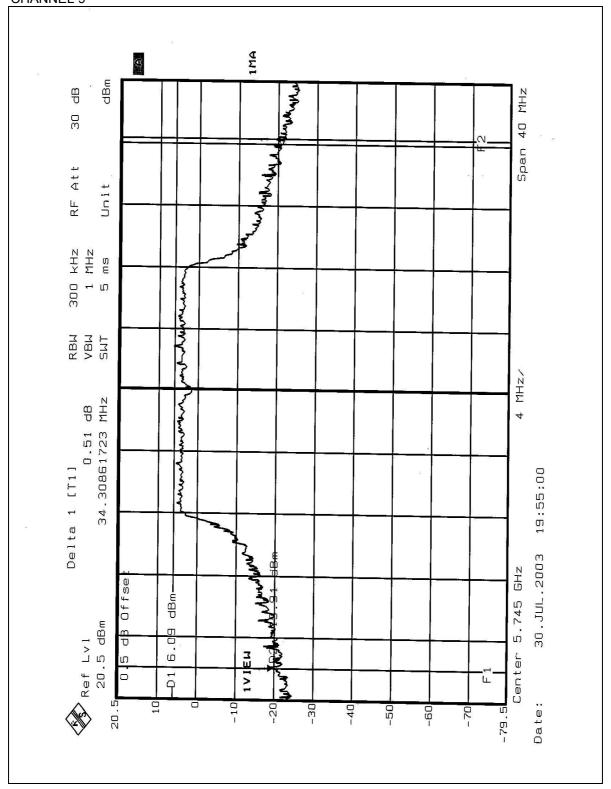






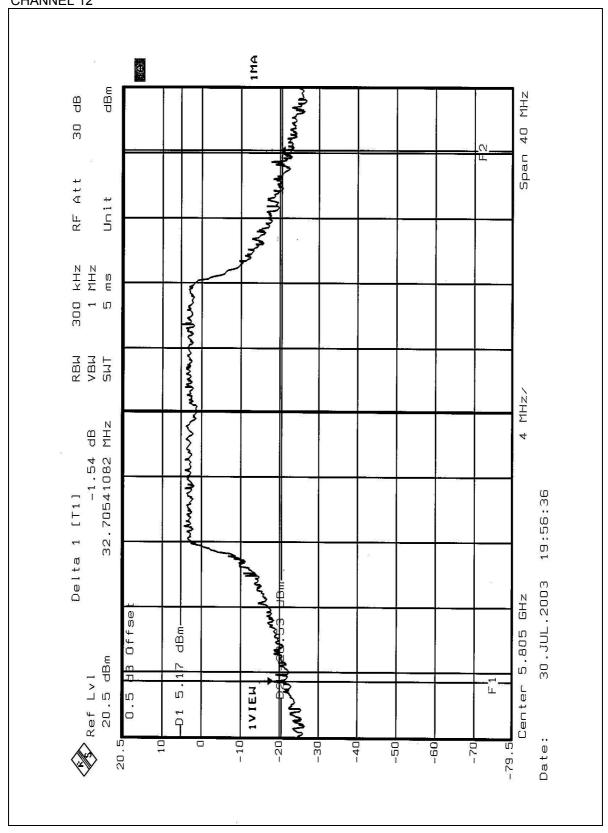








# **CHANNEL 12**





## 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
ROHDE&SCHWARZ SPECTRUM ANALYZER	FSEK30	100049	July 24, 2004

#### NOTE:

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



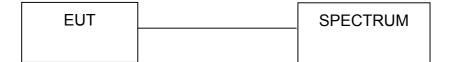
#### 5.4.3 TEST PROCEDURE

- 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.

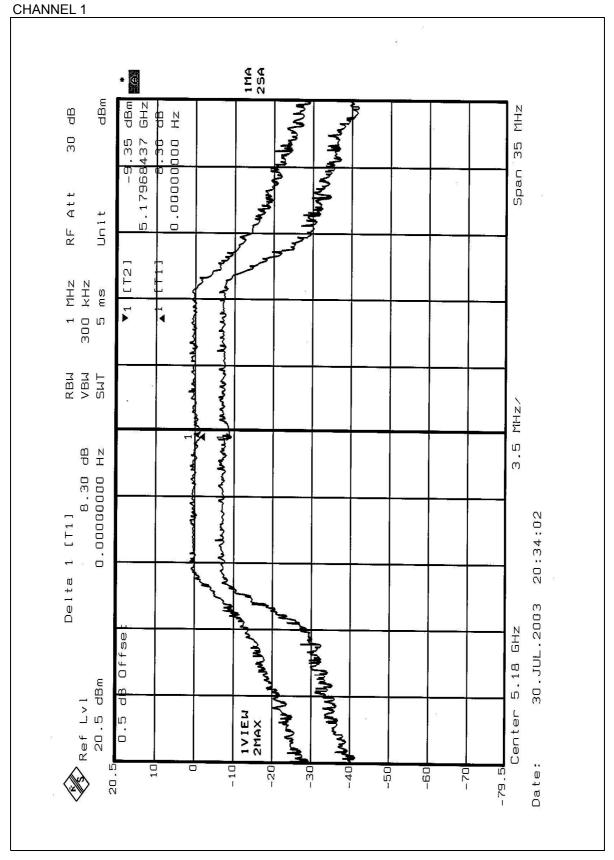


# 5.4.7 TEST RESULTS

EUT	802.11a+802.11g Dual Band Wireless Access Point	MODEL	NL-5354AP Aries (AMG)
ENVIRONMENTAL CONDITIONS	28deg. C, 60%RH, 991 hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Ansen Lei		

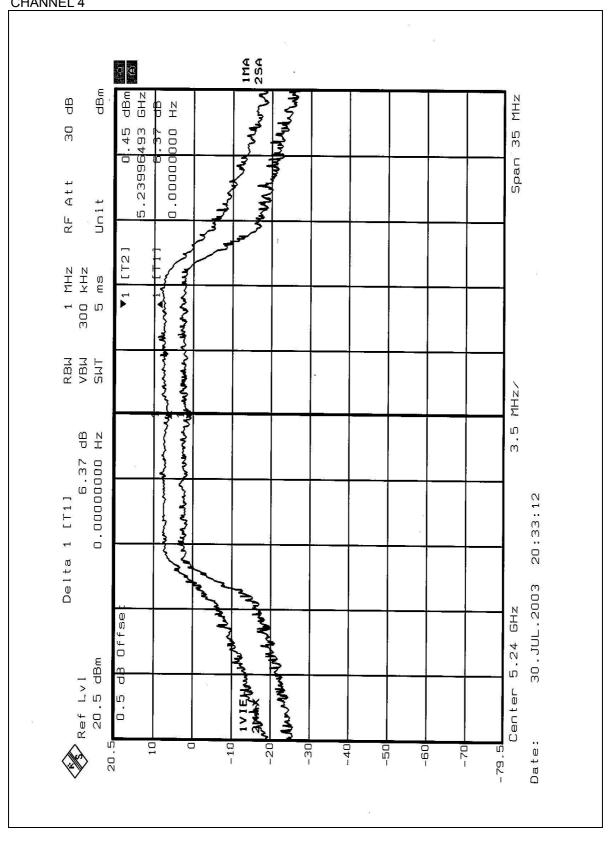
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
1	5180	8.30	13	PASS
4	5240	6.37	13	PASS
5	5260	5.88	13	PASS
8	5320	6.16	13	PASS
9	5745	5.68	13	PASS
12	5805	6.11	13	PASS











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