





4.3.10 TEST RESULTS (ANTENNA 4)

802.11b DSSS modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master				
MODEL	AP-80MB TRANSFER RATE 11Mbps				
MODULATION TYPE	ССК	ENVIRONMENTAL CONDITIONS	26deg. C, 64%RH, 961hPa		
INPUT POWER (SYSTEM)	120Vac, 60 Hz	TESTED BY	Eric Lee		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	11.94	0.5	PASS
6	2437	12.48	0.5	PASS
11	2462	12.18	0.5	PASS









802.11g OFDM modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master					
MODEL	AP-80MB TRANSFER RATE 6Mbps					
MODULATION TYPE	BPSK ENVIRONMENTAL 26deg. C, 64%RI					
INPUT POWER (SYSTEM)	120Vac, 60 Hz	20Vac, 60 HzTESTED BYEric Lee				

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	16.44	0.5	PASS
6	2437	16.38	0.5	PASS
11	2462	16.38	0.5	PASS









802.11g Turbo OFDM modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master				
MODEL	AP-80MB TRANSFER RATE 12Mbps				
MODULATION TYPE	BPSK ENVIRONMENTAL 26deg. C, 64%RH 961hPa				
INPUT POWER (SYSTEM)	120Vac, 60 Hz	TESTED BY	Eric Lee		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
6	2437	32.7	0.5	PASS





4.3.11 TEST RESULTS (ANTENNA 5)

802.11b DSSS modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master				
MODEL	AP-80MB	TRANSFER RATE	11Mbps		
MODULATION TYPE	ССК	ENVIRONMENTAL CONDITIONS	26deg. C, 64%RH, 961hPa		
INPUT POWER (SYSTEM)	120Vac, 60 Hz	TESTED BY	Eric Lee		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	11.58	0.5	PASS
6	2437	11.46	0.5	PASS
11	2462	11.64	0.5	PASS









802.11g OFDM modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master					
MODEL	AP-80MB TRANSFER RATE 6Mbps					
MODULATION TYPE	BPSK ENVIRONMENTAL 26deg. C, 64%RI					
INPUT POWER (SYSTEM)	120Vac, 60 Hz	20Vac, 60 HzTESTED BYEric Lee				

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	16.44	0.5	PASS
6	2437	16.38	0.5	PASS
11	2462	16.38	0.5	PASS









802.11g Turbo OFDM modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master				
MODEL	AP-80MB TRANSFER RATE 12Mbps				
MODULATION TYPE	BPSK ENVIRONMENTAL 26deg. C, 64%RH 961hPa				
INPUT POWER (SYSTEM)	120Vac, 60 Hz	TESTED BY	Eric Lee		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
6	2437	32.6	0.5	PASS







4.4 MAXIMUM PEAK OUTPUT POWER

4.4.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

4.4.2 INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP40	100036	Nov. 23, 2005
Agilent SIGNAL GENERATOR	E8257C	MY43320668	Dec. 07, 2005
TEKTRONIX OSCILLOSCOPE	TDS380	B016335	Jun. 22, 2006
NARDA DETECTOR	4503A	FSCM99899	NA

NOTE:

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



4.4.3 TEST PROCEDURES

- 1. A detector was used on the output port of the EUT. An oscilloscope was used to read the response of the detector.
- 2. Replaced the EUT by the signal generator. The center frequency of the S.G was adjusted to the center frequency of the measured channel.
- 3. Adjusted the power to have the same reading on oscilloscope. Record the power level.

4.4.4 DEVIATION FROM TEST STANDARD

No deviation

4.4.5 TEST SETUP





4.4.7 TEST RESULTS

802.11b DSSS modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master			
MODEL	AP-80MB TRANSFER RATE 11Mbps			
MODULATION TYPE	ССК	ENVIRONMENTAL CONDITIONS	26deg. C, 64%RH, 961hPa	
INPUT POWER (SYSTEM)	120Vac, 60Hz	TESTED BY	Eric Lee	

Antenna 1 (Gain : 8.0 dBi) +Cable loss (0.79dB)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	17.62	28.79	PASS
6	2437	23.76	28.79	PASS
11	2462	19.92	28.79	PASS

Antenna 2 (Gain : 12.0 dBi) +Cable loss (0.79dB)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	8.5	24.79	PASS
6	2437	17.06	24.79	PASS
11	2462	15.54	24.79	PASS



CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	17.62	30	PASS
6	2437	23.76	30	PASS
11	2462	20.26	30	PASS

Antenna 3 (Gain : 5.0 dBi) +Cable loss (0.79dB)

Antenna 4 (Gain : 15.0 dBi) +Cable loss (0.79dB)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	8.5	27.263	PASS
6	2437	17.06	27.263	PASS
11	2462	15.54	27.263	PASS

Antenna 5 (Gain : 7.0 dBi) +Cable loss (0.79dB)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	16.34	29.79	PASS
6	2437	23.76	29.79	PASS
11	2462	18.98	29.79	PASS



802.11g OFDM modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master			
MODEL	AP-80MB TRANSFER RATE 6Mbps			
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	26deg. C, 64%RH, 961hPa	
INPUT POWER (SYSTEM)	120Vac, 60Hz	TESTED BY	Eric Lee	

Antenna 1 (Gain : 8.0 dBi) +Cable loss (0.79dB)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	15.86	28.79	PASS
6	2437	24.06	28.79	PASS
11	2462	19.48	28.79	PASS

Antenna 2 (Gain : 12.0 dBi) +Cable loss (0.79dB)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	9.6	24.79	PASS
6	2437	18.46	24.79	PASS
11	2462	15.52	24.79	PASS



CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	15.86	30	PASS
6	2437	24.06	30	PASS
11	2462	20.06	30	PASS

Antenna 3 (Gain : 5.0 dBi) +Cable loss (0.79dB)

Antenna 4 (Gain : 15.0 dBi) +Cable loss (0.79dB)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	9.6	27.263	PASS
6	2437	18.46	27.263	PASS
11	2462	15.52	27.263	PASS

Antenna 5 (Gain : 7.0 dBi) +Cable loss (0.79dB)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	14.9	29.79	PASS
6	2437	24.06	29.79	PASS
11	2462	18.88	29.79	PASS



802.11g Turbo OFDM modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master		
MODEL	AP-80MB TRANSFER RATE 12Mbps		
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	26deg. C, 64%RH, 961hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TESTED BY	Eric Lee

Antenna 1 (Gain : 8.0 dBi) +Cable loss (0.79dB)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
6	2437	19.36	28.79	PASS

Antenna 2 (Gain : 12.0 dBi) +Cable loss (0.79dB)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
6	2437	13.42	24.79	PASS

Antenna 3 (Gain : 5.0 dBi) +Cable loss (0.79dB)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
6	2437	19.36	30	PASS

Antenna 4 (Gain : 15.0 dBi) +Cable loss (0.79dB)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
6	2437	13.42	27.263	PASS

Antenna 5 (Gain : 8.0 dBi) +Cable loss (0.79dB)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
6	2437	18.66	29.79	PASS



4.5 POWER SPECTRAL DENSITY MEASUREMENT

4.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

4.5.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP40	100036	Nov. 23, 2005

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.



4.5.3 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 3kHz RBW and 30kHz VBW, set sweep time = span/3kHz. The power spectral density was measured and recorded.

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

4.5.4 DEVIATION FROM TEST STANDARD

No deviation

4.5.5 TEST SETUP



4.5.6 EUT OPERATING CONDITION

Same as Item 4.3.6



4.5.7 TEST RESULTS (ANTENNA 1)

802.11b DSSS modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master			
MODULATION TYPE	сск	TRANSFER RATE	11Mbps	
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26deg. C, 64%RH, 961hPa	
INPUT POWER (SYSTEM)	120Vac, 60Hz	TESTED BY	Eric Lee	

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-5.58	8	PASS
6	2437	0.01	8	PASS
11	2462	-3.04	8	PASS









802.11g OFDM modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master			
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps	
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26deg. C, 64%RH, 961hPa	
INPUT POWER (SYSTEM)	120Vac, 60Hz	TESTED BY	Eric Lee	

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-11.32	8	PASS
6	2437	-0.48	8	PASS
11	2462	-6.15	8	PASS









802.11g Turbo OFDM modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master			
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps	
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26deg. C, 64%RH, 961hPa	
INPUT POWER (SYSTEM)	120Vac, 60Hz	TESTED BY	Eric Lee	

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
6	2437	-6.11	8	PASS





4.5.8 TEST RESULTS (ANTENNA 2)

802.11b DSSS modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master			
MODULATION TYPE	сск	TRANSFER RATE	11Mbps	
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26deg. C, 64%RH, 961hPa	
INPUT POWER (SYSTEM)	120Vac, 60Hz	TESTED BY	Eric Lee	

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-14.42	8	PASS
6	2437	-5.1	8	PASS
11	2462	-7.62	8	PASS








802.11g OFDM modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master				
MODULATION TYPE	3PSK TRANSFER RATE 6Mbps				
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26deg. C, 64%RH, 961hPa		
INPUT POWER (SYSTEM)	120Vac, 60Hz	TESTED BY	Eric Lee		

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-15.84	8	PASS
6	2437	-8.88	8	PASS
11	2462	-9.91	8	PASS









802.11g Turbo OFDM modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master				
MODULATION TYPE	BPSK TRANSFER RATE 12Mbps				
INPUT POWER (SYSTEM)	120Vac, 60Hz ENVIRONMENTAL CONDITIONS		26deg. C, 64%RH, 961hPa		
INPUT POWER (SYSTEM)	120Vac, 60Hz	TESTED BY	Eric Lee		

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
6	2437	-12.03	8	PASS





4.5.9 TEST RESULTS (ANTENNA 3)

802.11b DSSS modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master				
MODULATION TYPE	сск	TRANSFER RATE 11Mbps			
INPUT POWER (SYSTEM)	120Vac, 60HzENVIRONMENTAL CONDITIONS26deg. C, 64% 961hPa				
INPUT POWER (SYSTEM)	120Vac, 60Hz	TESTED BY	Eric Lee		

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-5.58	8	PASS
6	2437	0.01	8	PASS
11	2462	-2.52	8	PASS









802.11g OFDM modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master				
MODULATION TYPE	BPSK	PSK TRANSFER RATE 6Mbps			
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS26deg. C, 6 961hPa			
INPUT POWER (SYSTEM)	120Vac, 60Hz	TESTED BY	Eric Lee		

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-11.32	8	PASS
6	2437	-0.48	8	PASS
11	2462	-5.74	8	PASS









802.11g Turbo OFDM modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master			
MODULATION TYPE	BPSK TRANSFER RATE 12Mbps			
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26deg. C, 64%RH, 961hPa	
INPUT POWER (SYSTEM)	120Vac, 60Hz	TESTED BY	Eric Lee	

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
6	2437	-6.11	8	PASS





4.5.10 TEST RESULTS (ANTENNA 4)

802.11b DSSS modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master			
MODULATION TYPE	CK TRANSFER RATE 11Mbps			
INPUT POWER (SYSTEM)	120Vac, 60HzENVIRONMENTAL CONDITIONS26deg. C, 64% 961hPa			
INPUT POWER (SYSTEM)	120Vac, 60Hz	TESTED BY	Eric Lee	

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-14.42	8	PASS
6	2437	-5.10	8	PASS
11	2462	-7.62	8	PASS









802.11g OFDM modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master			
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps	
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26deg. C, 64%RH, 961hPa	
INPUT POWER (SYSTEM)	120Vac, 60Hz	TESTED BY	Eric Lee	

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-15.84	8	PASS
6	2437	-8.88	8	PASS
11	2462	-9.91	8	PASS









802.11g Turbo OFDM modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master			
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps	
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26deg. C, 64%RH, 961hPa	
INPUT POWER (SYSTEM)	120Vac, 60Hz	TESTED BY	Eric Lee	

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
6	2437	-12.03	8	PASS





4.5.11 TEST RESULTS (ANTENNA 5)

802.11b DSSS modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master			
MODULATION TYPE	сск	TRANSFER RATE	11Mbps	
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26deg. C, 64%RH, 961hPa	
INPUT POWER (SYSTEM)	120Vac, 60Hz	TESTED BY	Eric Lee	

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-6.94	8	PASS
6	2437	0.01	8	PASS
11	2462	-3.14	8	PASS









802.11g OFDM modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master			
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps	
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26deg. C, 64%RH, 961hPa	
INPUT POWER (SYSTEM)	120Vac, 60Hz	TESTED BY	Eric Lee	

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-12.35	8	PASS
6	2437	-0.48	8	PASS
11	2462	-6.74	8	PASS









802.11g Turbo OFDM modulation

EUT	Aruba 80 a+b/g Outdoor Stand-alone Access Point / WDS Bridge Master			
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps	
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	26deg. C, 64%RH, 961hPa	
INPUT POWER (SYSTEM)	120Vac, 60Hz	TESTED BY	Eric Lee	

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
6	2437	-6.67	8	PASS





4.6 BAND EDGES MEASUREMENT

4.6.1 LIMITS OF BAND EDGES MEASUREMENT

Below –20dB of the highest emission level of operating band (in 1MHz Resolution Bandwidth).

4.6.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP40	100036	Nov. 23, 2005

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.

4.6.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set RBW spectrum analyzer to 1 MHz and set VBW spectrum analyzer to 10 Hz with suitable frequency span including 1 MHz bandwidth from band edge. The band edges was measured and recorded.

The spectrum plots (Peak RBW=VBW=100kHz ; Average RBW=1MHz, VBW=10Hz) are attached on the following pages.

4.6.4 EUT OPERATING CONDITION

Same as Item 4.3.5



4.6.5 TEST RESULTS (ANTENNA 1)

802.11b DSSS modulation

The spectrum plots are attached on the following page. 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).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (Peak):

The band edge emission plot of DSSS technique on the following first page show 51.87dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 114.4dBuV/m, so the maximum field strength in restrict band is 114.4-51.87=62.53dBuV/m which is under 74 dBuV/m limit.

The band edge emission plot of DSSS technique on the following first page shows 53.47dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 118.3dBuV/m, so the maximum field strength in restrict band is 118.3-53.47=64.83dBuV/m which is under 74 dBuV/m limit.

NOTE (Average):

The band edge emission plot of DSSS technique on the following second page shows 54.1dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 107.2dBuV/m, so the maximum field strength in restrict band is 107.2-54.1=53.1dBuV/m which is under 54 dBuV/m limit.

The band edge emission plot of DSSS technique on the following second page shows 57.59dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 110.5dBuV/m, so the maximum field strength in restrict band is 110.5-57.59=52.91dBuV/m which is under 54 dBuV/m limit.





Span 100 MHz

F2

10 MHz/

F

Center 2.505 GHz













802.11g OFDM modulation

The spectrum plots are attached on the following page. 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).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (Peak):

The band edge emission plot of OFDM technique on the following first page show 45.08dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 109.7dBuV/m, so the maximum field strength in restrict band is 109.7-45.08=64.62dBuV/m which is under 74 dBuV/m limit.

The band edge emission plot of OFDM technique on the following first page shows 49.43dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 114.3dBuV/m, so the maximum field strength in restrict band is 114.3-49.43=64.87dBuV/m which is under 74 dBuV/m limit.

NOTE (Average):

The band edge emission plot of OFDM technique on the following second page shows 47.28dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 100.9dBuV/m, so the maximum field strength in restrict band is 100.9-47.28=53.62dBuV/m which is under 54 dBuV/m limit.

The band edge emission plot of OFDM technique on the following second page shows 52.56dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 105.6dBuV/m, so the maximum field strength in restrict band is 105.6-52.56=53.04dBuV/m which is under 54 dBuV/m limit.












CH 1





802.11g Turbo OFDM modulation

The spectrum plots are attached on the following page. 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).













Turbo CH 6





4.6.6 TEST RESULTS (ANTENNA 2)

802.11b DSSS modulation

The spectrum plots are attached on the following page. 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).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (Peak):

The band edge emission plot of DSSS technique on the following first page show 46.1dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 111.5dBuV/m, so the maximum field strength in restrict band is 111.5-46.1=65.4dBuV/m which is under 74 dBuV/m limit.

The band edge emission plot of DSSS technique on the following first page shows 53.39dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 118.3dBuV/m, so the maximum field strength in restrict band is 118.3-53.39=64.91dBuV/m which is under 74 dBuV/m limit.

NOTE (Average):

The band edge emission plot of DSSS technique on the following second page shows 51.15dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 104.5dBuV/m, so the maximum field strength in restrict band is 104.5-51.15=53.35dBuV/m which is under 54 dBuV/m limit.

The band edge emission plot of DSSS technique on the following second page shows 58.22dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 110.8dBuV/m, so the maximum field strength in restrict band is 110.8-58.22=52.58dBuV/m which is under 54 dBuV/m limit.













CH 1





802.11g OFDM modulation

The spectrum plots are attached on the following page. 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).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (Peak) :

The band edge emission plot of OFDM technique on the following first page show 40.82dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 110.5dBuV/m, so the maximum field strength in restrict band is 110.5-40.82=69.68dBuV/m which is under 74 dBuV/m limit.

The band edge emission plot of OFDM technique on the following first page shows 49.57dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 115.0dBuV/m, so the maximum field strength in restrict band is 115.0-49.57=65.43dBuV/m which is under 74 dBuV/m limit.

NOTE (Average):

The band edge emission plot of OFDM technique on the following second page shows 47.83dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 100.4dBuV/m, so the maximum field strength in restrict band is 100.4-47.83=52.57dBuV/m which is under 54 dBuV/m limit.

The band edge emission plot of OFDM technique on the following second page shows 53.11dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 106.7dBuV/m, so the maximum field strength in restrict band is 106.7-53.11=53.59dBuV/m which is under 54 dBuV/m limit.













CH 1





802.11g Turbo OFDM modulation

The spectrum plots are attached on the following page. 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).





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Turbo CH 6





4.6.7 TEST RESULTS (ANTENNA 3)

802.11b DSSS modulation

The spectrum plots are attached on the following page. 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).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (Peak):

The band edge emission plot of DSSS technique on the following first page show 51.87dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 115.1dBuV/m, so the maximum field strength in restrict band is 115.1-51.87=63.23dBuV/m which is under 74 dBuV/m limit.

The band edge emission plot of DSSS technique on the following first page shows 54.96dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 117.1dBuV/m, so the maximum field strength in restrict band is 117.1-54.96=62.14dBuV/m which is under 74 dBuV/m limit.

NOTE (Average):

The band edge emission plot of DSSS technique on the following second page shows 54.1dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 107.4dBuV/m, so the maximum field strength in restrict band is 107.4-54.1=53.3dBuV/m which is under 54 dBuV/m limit.

The band edge emission plot of DSSS technique on the following second page shows 58.18dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 109.8dBuV/m, so the maximum field strength in restrict band is 109.8-58.18=51.62dBuV/m which is under 54 dBuV/m limit.