





















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		802.11a/b/g PCI adapter card		м	ODEL	8482	-WD
MODE	Normal INPUT POWER (SYSTEM)		Normal		120Vac, 60 Hz		
ENVIRONMEN CONDITIONS	TAL	27eg. C, 56F 965 hPa	7eg. C, 56RH, 65 hPa ТЕ STED BY ¹		Tony Chen		
r							
CHANNEL	C FR	HANNEL EQUENCY (MHz)	PEAK POWE EXCURSION (dB)	R	PEAK to AVERAGE EXCURSION I (dB)	E _IMIT	PASS/FAIL
1		5180	6.47		13		PASS
4		5240	6.44		13		PASS
5		5260	6.77		13		PASS
8		5320	7.13		13		PASS



















EUT	802.11a/b/g PCI adapter card	MODEL	8482-WD
MODE	Turbo	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	27eg. C, 56RH, 965 hPa	TESTED BY	Tony Chen

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
1	5210	7.58	13	PASS
2	5250	9.15	13	PASS
3	5290	8.07	13	PASS















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
R&S SPECTRUM ANALYZER	FSP	1093.4495.30	Dec. 19, 2003

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.



5.5.3 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	802.11a/b/g PCI adapter card	MODEL	8482-WD
MODE	Normal	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	27eg. C, 56RH, 965 hPa	TESTED BY	Tony Chen

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 1 MHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	5180	-0.37	4	PASS
4	5240	0.10	4	PASS
5	5260	-0.27	11	PASS
8	5320	0.68	11	PASS



















EUT	802.11a/b/g PCI adapter card	MODEL	8482-WD
MODE	Turbo	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	27eg. C, 56RH, 965 hPa	TESTED BY	Tony Chen

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 1 MHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	5210	-2.15	4	PASS
2	5250	-3.19	4	PASS
3	5290	-2.47	11	PASS















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
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.

5.6.3 TEST PROCEDURE

- 1. The EUT was placed inside the environmental test chamber and powered by nominal AC 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: 5320MHz Limit : ± 0.01%							
Temp. ()	Power supply (VAC)	2 minute		5 minute		10 minute	
		(MHz)	(%)	(MHz)	(%)	(MHz)	(%)
50	126.5	5319.9916	-0.000158%	5319.9915	-0.000160%	5319.9911	-0.000167%
	110	5319.9918	-0.000154%	5319.9917	-0.000156%	5319.9914	-0.000162%
	93.5	5319.9916	-0.000158%	5319.9915	-0.000160%	5319.9911	-0.000167%
40	126.5	5319.9881	-0.000224%	5319.9976	-0.000045%	5319.9973	-0.000051%
	110	5319.9882	-0.000222%	5319.9976	-0.000045%	5319.9975	-0.000047%
	93.5	5319.9981	-0.000036%	5319.9979	-0.000039%	5319.9972	-0.000053%
30	126.5	5319.9922	-0.000147%	5319.9919	-0.000152%	5319.9917	-0.000156%
	110	5319.9922	-0.000147%	5319.9921	-0.000148%	5319.9918	-0.000154%
	93.5	5319.9922	-0.000147%	5319.9919	-0.000152%	5319.9916	-0.000158%
20	126.5	5320.0071	0.000133%	5320.0068	0.000128%	5320.0065	0.000122%
	110	5320.0072	0.000135%	5320.0072	0.000135%	5320.0069	0.000130%
	93.5	5320.0071	0.000133%	5320.0068	0.000128%	5320.0065	0.000122%
10	126.5	5320.0124	0.000233%	5320.0122	0.000229%	5320.0119	0.000224%
	110	5320.0124	0.000233%	5320.0122	0.000229%	5320.0121	0.000227%
	93.5	5320.0124	0.000233%	5320.0121	0.000227%	5320.0118	0.000222%
0	126.5	5320.023	0.000432%	5320.0180	0.000338%	5320.0180	0.000338%
	110	5320.023	0.000432%	5320.0210	0.000395%	5320.0190	0.000357%
	93.5	5320.021	0.000395%	5320.0180	0.000338%	5320.0180	0.000338%
-10	126.5	5320.0306	0.000575%	5320.0290	0.000545%	5320.0270	0.000508%
	110	5320.0304	0.000571%	5320.0310	0.000583%	5320.0290	0.000545%
	93.5	5320.0304	0.000571%	5320.0280	0.000526%	5320.0270	0.000508%
-20	126.5	5320.0300	0.000564%	5320.0250	0.000470%	5320.0210	0.000395%
	110	5320.0300	0.000564%	5320.0280	0.000526%	5320.0240	0.000451%
	93.5	5320.0300	0.000564%	5320.0240	0.000451%	5320.0220	0.000414%
-30	126.5	5320.0116	0.000218%	5320.0111	0.000209%	5320.0108	0.000203%
	110	5320.0116	0.000218%	5320.0113	0.000212%	5320.0111	0.000209%
	93.5	5320.0116	0.000218%	5320.0111	0.000209%	5320.0108	0.000203%