



EMC TEST REPORT

Report No. : EME-030336

Model No. : ZyAIR B-620

Issued Date : April 9, 2003

Applicant : ZyXEL Communications Corporation
No. 6, Innovation Rd II, Science-Based Industrial Park,
Hsin-Chu, Taiwan

Test By : Intertek Testing Services Taiwan Ltd.
No. 11, Lane 275, Ko-Nan 1 Street, Chia-Tung Li,
Shiang-Shan District, Hsinchu City, Taiwan

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Project Engineer

Kaysi Chen

Reviewed By

Elton Chen



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Summary of Tests

Mini-PCI 11M Wireless LAN Card-Model: ZyAIR B-620

FCC ID: I88B620

Test	Reference	Results
Minimum 6dB Bandwidth test	15.247(a)(2)	Complies
Maximum Output Power test	15.247(b)	Complies
Radiated Spurious Emission test	15.205, 15.209	Complies
Power Spectrum Density test	15.247(d)	Complies
Power Line Conducted Emission test	15.207	Complies



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1. General information

1.1 Identification of the EUT

Applicant	: ZyXEL Communications Corp.
Product	: Mini-PCI 11M Wireless LAN Card
Model No.	: ZyAIR B-620
FCC ID.	: I88B620
Frequency Range	: 2400MHz to 2483.5MHz
Channel Number	: 11
Frequency of Each Channel	: 2412MHz, 2417MHz, 2422MHz, 2427MHz, 2432MHz, 2437MHz, 2442MHz, 2447MHz, 2452MHz, 2457MHz, 2462MHz
Type of Modulation	: CCK (11Mbps, 5.5Mbps), DQPSK (2Mbps), DBPSK (1Mbps)
Rated Power	: 5Vdc
Power Cord	: N/A
Test Voltage	: 120Vac, 60Hz
Sample Received	: Mar. 11, 2003
Test Date(s)	: Mar. 21, 2003 to Mar. 28, 2003

A FCC DoC report has been generated for the client.

1.2 Additional information about the EUT

The EUT is a Mini-PCI 11M Wireless LAN Card, and it provides a flexible data communications system that user can use to access various services (navigating the Internet, email, printer services, etc.) on the wired network without additional expensive network cabling infrastructure.

The EUT meets special requirements for full modular approval on FCC Public Notice DA 00-1407 and the device is only for OEM integrator, please refer the test result in this report.

The model B-620, Telefonica B-620 and Lantech B-620 are identical to model B-620 (EUT), the different model number serves as marketing strategy.

For more detail features, please refer to User's manual as file name "Installation guide.pdf"



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1.3 Antenna description

The antenna is affixed to the EUT using a unique connector, which allows for replacement of a broken antenna, but DOES NOT use a standard antenna jack or electrical connector.

Antenna Gain : 2dBi

Antenna Type : Dipole antenna

Connector Type : Male

1.4 Peripherals equipment

Peripherals	Manufacturer	Product No.	Serial No.	FCC ID
PC	N/A	N/A	N/A	N/A
Key Board	HP	C4734-60323	MR80700043	FCC DoC Approved
Monitor	HP	D2827A	KR91050275	ARSCM560S
Mouse	HP	C3751-60201	LZB90450395	FCC DoC Approved
Printer	HP	C2642A	TH86K1N2ZB	FCC DoC Approved
Modem	Dynalink	V1456VQE	00V230A00051494	FCC DoC Approved

The PC is provided by client.



2. Test specifications

2.1 Test standard

The EUT was performed according to the procedures in FCC Part 15 Subpart C Section §15.205 、 §15.207 、 §15.209 、 §15.247 and ANSI C63.4/1992.

The test of radiated measurements according to FCC Part15 Section 15.33(a) had been conducted and the field strength of this frequency band were all meet limit requirement, thus we evaluate the EUT pass the specified test.

The EUT setup configurations please refer to the photo of test configuration in item.

2.2 Operation mode

Plug the EUT into PC via PCI to mini PCI adapter. Turn on all the power, and running the test program “ZPConfig” under Window OS.

The EUT was transmitted continuously during the test.

After verifying the maximum output power, we found the maximum output power was occurred at 11Mbps data rate. The final test was executed under this condition and recorded in this report individually.



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2.3 Test equipment

Equipment	Brand	Frequency range	Model No.	Series No.	Last Cal.Date
EMI Test Receiver	Rohde & Schwarz	9kHz~2.75GHz	ESCS 30	825788/014	May 24, 2002
EMI Test Receiver	Rohde & Schwarz	20Hz~26.5GHz	ESMI	825428/005	June 10, 2002
Spectrum Analyzer	Rohde & Schwarz	9kHz~30GHz	FSP 30	100137	July 10, 2002
Spectrum Analyzer	Rohde & Schwarz	20Hz~40GHz	FSEK 30	100186	Oct. 9, 2002
Horn Antenna	EMCO	1GHz~18GHz	3115	9906-5890	Sep. 19, 2002
Horn Antenna	SCHWARZBECK	14GHz~40GHz	BBHA 9170	159	June 20, 2002
Bilog Antenna	SCHWARZBECK	25MHz~1.7GHz	VULB 9160	3111	June 20, 2002
Turn Table	HDGmbH	N/A	DS 420S	420/669/01	N/A
Antenna Tower	HDGmbH	N/A	MA 240	240/573	N/A
Microwave Amplifier	Agilent	2GHz~26.5GHz	8348A	3111A00567	Dec. 20, 2002
RF Power Meter	Boonton	10kHz~100GHz	4231A	79401	May 22, 2002
Average Power Sensor	Boonton	30MHz~8GHz	51011-EMC	32482	May 25, 2002

Note:

1. The calibration interval of the above instruments is 12 months.



3. Minimum 6dB Bandwidth test

3.1 Operating environment

Temperature: 24 °C
Relative Humidity: 60 %
Atmospheric Pressure 1023 hPa

3.2 Test setup & procedure

The minimum 6dB bandwidth per FCC §15.247(a)(2) was measured using a 50 ohm spectrum analyzer with the resolutions bandwidth set at 100kHz, the video bandwidth set at 100kHz, and the SPAN>>RBW. The test was performed at 3 channels (lowest, middle and highest channel). The minimum 6-dB modulation bandwidth is in the following Table.

See Minimum 6dB Bandwidth plot as file name “Minimum 6dB Bandwidth plot.pdf”

3.3 Measured data of Minimum 6dB Bandwidth test results

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit
Low	2410.46	8.34	> 500kHz
Middle	2435.46	8.34	> 500kHz
High	2460.46	8.34	> 500kHz



4. Maximum Output Power test

4.1 Operating environment

Temperature: 24 °C
Relative Humidity: 58 %
Atmospheric Pressure 1023 hPa

4.2 Test setup & procedure

The power output per FCC §15.247(b) was measured on the EUT using a 50 ohm SMA cable connected to power meter via power sensor. Power was read directly and cable loss correction (3dB) was added to the reading to obtain power at the EUT antenna terminals. The test was performed at 3 channels (lowest, middle and highest channel).

4.3 Measured data of Maximum Output Power test results

Channel	Frequency (MHz)	C.B.L. (dB)	Reading (dBm)	Power Output		Limit (W)
				(dBm)	(mW)	
Lowest	2412	3	14.45	17.45	55.59	1
Middle	2437	3	14.34	17.34	54.20	1
Highest	2462	3	14.41	17.41	55.08	1

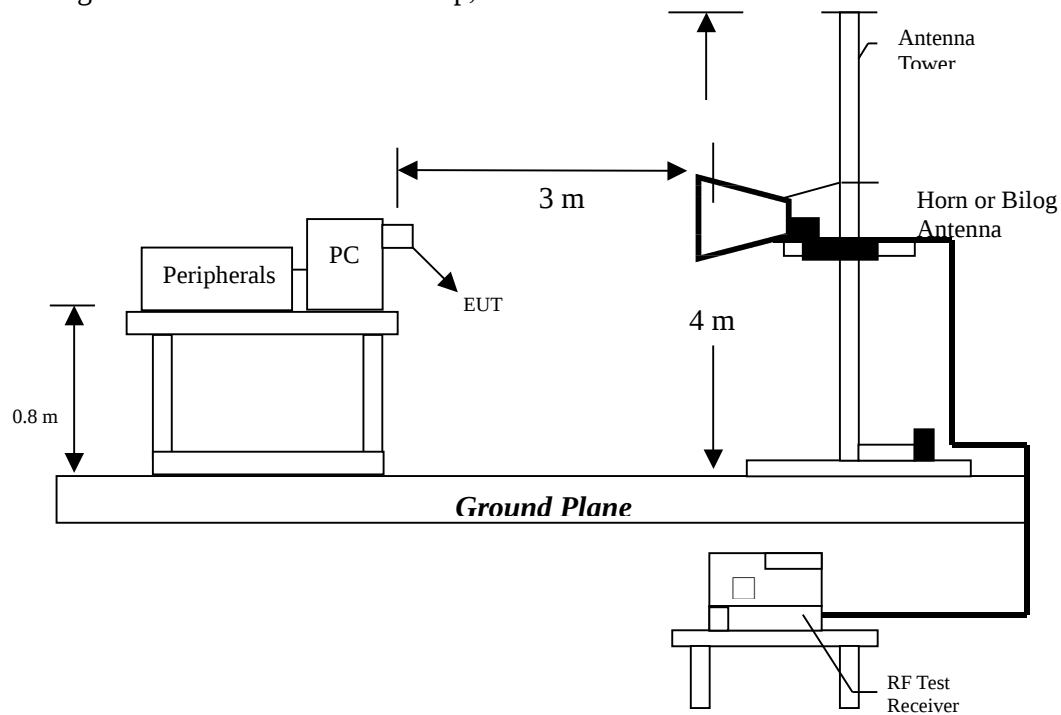
5. Radiated Emission test

5.1 Operating environment

Temperature: 24 °C
 Relative Humidity: 60 %
 Atmospheric Pressure 1023 hPa

5.2 Test setup & procedure

The Diagram below shows the test setup, which is utilized to make these measurements.



Radiated emissions were investigated cover the frequency range from 30MHz to 1000MHz using a receiver RBW of 120kHz record QP reading, and the frequency over 1GHz using a spectrum analyzer RBW of 1MHz and 10Hz VBW record Average reading. (15.209 paragraph), the Peak reading recorded also on the report

The EUT for testing is arranged on a wooden turntable. If some peripherals apply to the EUT, the peripherals will be connected to EUT and the whole system. During the test, all cables were arranged to produce worst-case emissions. The signal is maximized through rotation. The height of antenna and polarization is changing constantly for exploring for maximum signal level. The height of antenna can be up to 4 meters and down to 1 meter.



The measurement for radiated emission will be done at the distance of three meters unless the signal level is too low to measure at that distance. In the case of the reading under noise floor, a pre-amplifier is used and/or the test is conducted at a closer distance. And then all readings are extrapolated back to the equivalent three meter reading using inverse scaling with distance.

5.3 Emission limits

The spurious Emission shall test through the 10th harmonic. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

Frequency (MHz)	Limits (dB μ V/m@3m)
30-88	40
88-216	43.5
216-960	46
Above 960	54

Remark:

1. In the above table, the tighter limit applies at the band edges.
2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system

Uncertainty was calculated in accordance with NAMAS NIS 81.

Expanded uncertainty (k=2) of radiated emission measurement is ± 4.98 dB.

Expanded uncertainty (k=2) of conducted emission measurement is ± 2.02 dB.



5.4 Radiated spurious emission test data

5.4.1 Measurement results: frequencies equal to or less than 1 GHz

EUT : ZyAIR B-620
Test Condition : Tx at low channel

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Level (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
165.8000	QP	V	12.97	24.53	37.50	43.50	-6.00
235.6000	QP	V	12.88	23.12	36.00	46.00	-10.00
336.5000	QP	V	15.12	18.68	33.80	46.00	-12.20
528.6000	QP	V	19.61	15.79	35.40	46.00	-10.60
577.1000	QP	V	20.74	15.66	36.40	46.00	-9.60
720.6000	QP	V	22.73	14.97	37.70	46.00	-8.30
167.7000	QP	H	12.95	28.05	41.00	43.50	-2.50
233.7000	QP	H	12.84	26.66	39.50	46.00	-6.50
336.5000	QP	H	15.12	21.68	36.80	46.00	-9.20
528.6000	QP	H	19.61	17.09	36.70	46.00	-9.30
551.9000	QP	H	19.71	20.59	40.30	46.00	-5.70
720.6000	QP	H	22.73	18.27	41.00	46.00	-5.00

Remark:

1. Corrected Level = Reading Level + Correction Factor
2. Correction Factor = Antenna Factor + Cable Loss



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EUT : ZyAIR B-620
Test Condition : Tx at middle channel

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Level (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
233.7000	QP	V	12.84	23.66	36.50	46.00	-9.50
299.7000	QP	V	14.29	19.71	34.00	46.00	-12.00
336.5000	QP	V	15.12	18.88	34.00	46.00	-12.00
528.6000	QP	V	19.61	15.69	35.30	46.00	-10.70
577.1000	QP	V	20.74	15.36	36.10	46.00	-9.90
720.6000	QP	V	22.73	15.87	38.60	46.00	-7.40
233.7000	QP	H	12.84	26.56	39.40	46.00	-6.60
299.7000	QP	H	14.29	29.01	43.30	46.00	-2.70
369.5000	QP	H	16.34	20.26	36.60	46.00	-9.40
528.6000	QP	H	19.61	16.99	36.60	46.00	-9.40
551.9000	QP	H	19.71	19.89	39.60	46.00	-6.40
720.6000	QP	H	22.73	17.97	40.70	46.00	-5.30

Remark:

1. Corrected Level = Reading Level + Correction Factor
2. Correction Factor = Antenna Factor + Cable Loss



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EUT : ZyAIR B-620
Test Condition : Tx at high channel

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Level (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
167.7000	QP	V	12.95	22.95	35.90	43.50	-7.60
233.7000	QP	V	12.84	21.36	34.20	46.00	-11.80
336.5000	QP	V	15.12	18.78	33.90	46.00	-12.10
528.6000	QP	V	19.61	17.49	37.10	46.00	-8.90
577.1000	QP	V	20.74	14.56	35.30	46.00	-10.70
720.6000	QP	V	22.73	14.87	37.60	46.00	-8.40
167.7000	QP	H	12.95	28.25	41.20	43.50	-2.30
233.7000	QP	H	12.84	26.26	39.10	46.00	-6.90
299.7000	QP	H	14.29	28.71	43.00	46.00	-3.00
336.5000	QP	H	15.12	21.88	37.00	46.00	-9.00
551.9000	QP	H	19.71	18.99	38.70	46.00	-7.30
720.6000	QP	H	22.73	17.97	40.70	46.00	-5.30

Remark:

1. Corrected Level = Reading Level + Correction Factor
2. Correction Factor = Antenna Factor + Cable Loss



5.4.2 Measurement results: frequency above 1GHz

EUT : ZyAIR B-620

Test Condition : Tx at low channel

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Level (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
4824	PK	V	32.496	35.47	-	-	74	-
4824	AV	V	32.496	35.47	-	-	54	-
7236	PK	V	34.32	38.42	-	-	74	-
7236	AV	V	34.32	38.42	-	-	54	-
9648	PK	V	35.808	41.35	48.168	53.71	74	-20.29
9648	AV	V	35.808	41.35	36.708	42.25	54	-11.75
12060	PK	V	35.4	43.38	-	-	74	-
12060	AV	V	35.4	43.38	-	-	54	-
4824	PK	H	32.496	35.47	-	-	74	-
4824	AV	H	32.496	35.47	-	-	54	-
7236	PK	H	34.32	38.42	-	-	74	-
7236	AV	H	34.32	38.42	-	-	54	-
9648	PK	H	35.808	41.35	48.738	54.28	74	-19.72
9648	AV	H	35.808	41.35	37.168	42.71	54	-11.29
12060	PK	H	35.4	43.38	-	-	74	-
12060	AV	H	35.4	43.38	-	-	54	-

Remark:

1. Corrected Level = Reading Level + Correction Factor – Preamp
2. Correction Factor = Antenna Factor + Cable Loss
3. “-“ means the emission is below the noise floor, and the noise floor listed below:

For PK:

1GHz-10GHz: 50dBuV

10GHz-26.5GHz: 60dBuV

For AV:

1GHz-10GHz: 40dBuV

10GHz-26.5GHz: 45dBuV



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EUT : ZyAIR B-620
Test Condition : Tx at middle channel

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamplifier (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Level (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
4874	PK	V	32.496	35.47	-	-	74	-
4874	AV	V	32.496	35.47	-	-	54	-
7311	PK	V	34.32	38.42	-	-	74	-
7311	AV	V	34.32	38.42	-	-	54	-
9748	PK	V	35.808	41.35	47.798	53.34	74	-20.66
9748	AV	V	35.808	41.35	34.708	40.25	54	-13.75
12185	PK	V	35.4	43.38	-	-	74	-
12185	AV	V	35.4	43.38	-	-	54	-
4874	PK	H	32.496	35.47	-	-	74	-
4874	AV	H	32.496	35.47	-	-	54	-
7311	PK	H	34.32	38.42	-	-	74	-
7311	AV	H	34.32	38.42	-	-	54	-
9748	PK	H	35.808	41.35	48.428	53.97	74	-20.03
9748	AV	H	35.808	41.35	34.478	40.02	54	-13.98
12185	PK	H	35.4	43.38	-	-	74	-
12185	AV	H	35.4	43.38	-	-	54	-

Remark:

1. Corrected Level = Reading Level + Correction Factor – Preamp
2. Correction Factor = Antenna Factor + Cable Loss
3. “-“ means the emission is below the noise floor, and the noise floor listed below:

For PK:

1GHz-10GHz: 50dBuV

10GHz-26.5GHz: 60dBuV

For AV:

1GHz-10GHz: 40dBuV

10GHz-26.5GHz: 45dBuV



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EUT : ZyAIR B-620
Test Condition : Tx at high channel

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamplifier (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Level (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)
4924	PK	V	32.496	35.47	-	-	74	-
4924	AV	V	32.496	35.47	-	-	54	-
7386	PK	V	34.32	38.42	-	-	74	-
7386	AV	V	34.32	38.42	-	-	54	-
9848	PK	V	35.919	41.55	50.569	56.2	74	-17.8
9848	AV	V	35.919	41.55	36.879	42.51	54	-11.49
12310	PK	V	35.315	43.75	-	-	74	-
12310	AV	V	35.315	43.75	-	-	54	-
4924	PK	H	32.496	35.47	-	-	74	-
4924	AV	H	32.496	35.47	-	-	54	-
7386	PK	H	34.32	38.42	-	-	74	-
7386	AV	H	34.32	38.42	-	-	54	-
9848	PK	H	35.919	41.55	49.719	55.35	74	-18.65
9848	AV	H	35.919	41.55	36.019	41.65	54	-12.35
12310	PK	H	35.315	43.75	-	-	74	-
12310	AV	H	35.315	43.75	-	-	54	-

Remark:

1. Corrected Level = Reading Level + Correction Factor – Preamp
2. Correction Factor = Antenna Factor + Cable Loss
3. “-“ means the emission is below the noise floor, and the noise floor listed below:

For PK:

1GHz-10GHz: 50dBuV

10GHz-26.5GHz: 60dBuV

For AV:

1GHz-10GHz: 40dBuV

10GHz-26.5GHz: 45dBuV



6. Power Spectrum Density test

6.1 Operating environment

Temperature: 25 °C
Relative Humidity: 58 %
Atmospheric Pressure 1023 hPa

6.2 Test setup & procedure

The power spectrum density per FCC § 15.247(d) was measured from the antenna port of the EUT using a 50ohm spectrum analyzer with the resolution bandwidth set at 3kHz, the video bandwidth set at 10kHz, a span of 1.5 MHz, and the sweep time set at 500 seconds. Power Density was read directly and cable loss (3dB)/external attenuator (3dB) correction was added to the reading to obtain power at the EUT antenna terminals. The test was performed at 3 channels (lowest, middle and highest channel). The Power Spectral Density measured result is in the following table.

See Power Spectrum Density plot as file name “Power Spectrum Density plot.pdf”

6.3 Measured data of Power Spectrum Density test results

Channel	Frequency (MHz)	Measured level (dBm)	Limit (dBm)
Low	2412.25	-6.48	8
Middle	2437.25	-6.35	8
High	2462.25	-6.29	8



7. Emission on the band edge §FCC 15.247(C)

In any 100kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

See band-edge plot as file name “Band-edge plot.pdf”.

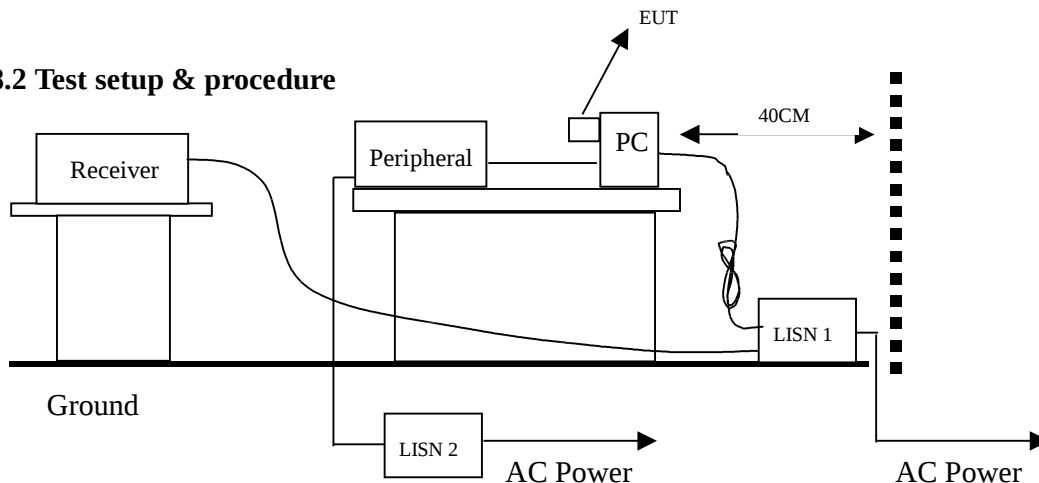


8. Power Line Conducted Emission test §FCC 15.207

8.1 Operating environment

Temperature: 24 °C
Relative Humidity: 60 %
Atmospheric Pressure 1023 hPa

8.2 Test setup & procedure



The EUT are connected to the main power through a line impedance stabilization network (LISN). This provides a 50 ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. Both sides (Line and Neutral) of AC line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4/1992 on conducted measurement. The AC power conducted emissions was investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz. (15.207 paragraph)

See Power Line Conducted Emission plot as file name “Power Line Conducted Emission plot.pdf”.

Emission Limit

Freq. (MHz)	Conducted Limit (dBuV)	
	Q.P.	Ave.
0.15~0.50	66 – 56*	56 – 46*
0.50~5.00	56	46
5.00~30.0	60	50

*Decreases with the logarithm of the frequency.



8.3 Power Line Conducted Emission test data

(1) Line

EUT : ZyAIR B-620
Test Condition : Tx at low channel

Freq. (MHz)	Reading (dB μ V) QP	Limit (dB μ V) QP	Reading (dB μ V) AV	Limit (dB μ V) AV	Margin (dB)	
					QP	AV
0.15800	46.00	65.57	43.60	55.57	-19.57	-11.97
0.23000	49.10	62.45	48.60	52.45	-13.35	-3.85
0.54200	39.30	56.00	37.50	46.00	-16.70	-8.50
0.92600	37.90	56.00	36.60	46.00	-18.10	-9.40
12.28600	33.00	60.00	32.70	50.00	-27.00	-17.30
21.58200	26.70	60.00	26.30	50.00	-33.30	-23.70

(2) Neutral

EUT : ZyAIR B-620
Test Condition : Tx at low channel

Freq. (MHz)	Reading (dB μ V) QP	Limit (dB μ V) QP	Reading (dB μ V) AV	Limit (dB μ V) AV	Margin (dB)	
					QP	AV
0.15800	49.00	65.57	47.30	55.57	-16.57	-8.27
0.23000	50.80	62.45	50.30	52.45	-11.65	-2.15
0.54200	39.20	56.00	37.50	46.00	-16.80	-8.50
0.92600	37.60	56.00	36.60	46.00	-18.40	-9.40
3.87800	28.90	56.00	26.30	46.00	-27.10	-19.70
12.28600	34.80	60.00	34.70	50.00	-25.20	-15.30

Remark:

1. The reading value included cable loss and LISN factor.
2. Uncertainty was calculated in accordance with NAMAS NIS 81.
Expanded uncertainty (k=2) of conducted emission measurement is ± 2.6 dB.



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(1) Line

EUT : ZyAIR B-620
Test Condition : Tx at middle channel

Freq. (MHz)	Reading (dB μ V) QP	Limit (dB μ V) QP	Reading (dB μ V) AV	Limit (dB μ V) AV	Margin (dB)	
					QP	AV
0.15800	46.10	65.57	43.70	55.57	-19.47	-11.87
0.23000	49.10	62.45	48.60	52.45	-13.35	-3.85
0.54200	39.40	56.00	37.60	46.00	-16.60	-8.40
0.85400	38.50	56.00	38.30	46.00	-17.50	-7.70
12.28600	33.40	60.00	33.10	50.00	-26.60	-16.90
23.19000	28.00	60.00	22.60	50.00	-32.00	-27.40

(2) Neutral

EUT : ZyAIR B-620
Test Condition : Tx at middle channel

Freq. (MHz)	Reading (dB μ V) QP	Limit (dB μ V) QP	Reading (dB μ V) AV	Limit (dB μ V) AV	Margin (dB)	
					QP	AV
0.15800	49.00	65.57	47.40	55.57	-16.57	-8.17
0.23000	50.80	62.45	50.40	52.45	-11.65	-2.05
0.54200	39.50	56.00	37.70	46.00	-16.50	-8.30
0.92600	37.60	56.00	36.30	46.00	-18.40	-9.70
12.28600	33.70	60.00	33.40	50.00	-26.30	-16.60
23.19000	28.00	60.00	22.70	50.00	-32.00	-27.30

Remark:

1. The reading value included cable loss and LISN factor.
2. Uncertainty was calculated in accordance with NAMAS NIS 81.
Expanded uncertainty (k=2) of conducted emission measurement is ± 2.6 dB.



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(1) Line

EUT : ZyAIR B-620
Test Condition : Tx at high channel

Freq. (MHz)	Reading (dB μ V) QP	Limit (dB μ V) QP	Reading (dB μ V) AV	Limit (dB μ V) AV	Margin (dB)	
					QP	AV
0.15800	46.10	65.57	43.70	55.57	-19.47	-11.87
0.23000	49.10	62.45	48.60	52.45	-13.35	-3.85
0.54200	39.40	56.00	37.60	46.00	-16.60	-8.40
0.92600	37.80	56.00	36.40	46.00	-18.20	-9.60
12.28600	33.40	60.00	33.10	50.00	-26.60	-16.90
23.18200	29.20	60.00	22.70	50.00	-30.80	-27.30

(2) Neutral

EUT : ZyAIR B-620
Test Condition : Tx at high channel

Freq. (MHz)	Reading (dB μ V) QP	Limit (dB μ V) QP	Reading (dB μ V) AV	Limit (dB μ V) AV	Margin (dB)	
					QP	AV
0.15800	48.90	65.57	47.40	55.57	-16.67	-8.17
0.23000	50.80	62.45	50.40	52.45	-11.65	-2.05
0.54200	39.40	56.00	37.70	46.00	-16.60	-8.30
0.85400	38.30	56.00	38.20	46.00	-17.70	-7.80
12.28600	34.20	60.00	34.00	50.00	-25.80	-16.00
23.18200	30.40	60.00	23.70	50.00	-29.60	-26.30

Remark:

1. The reading value included cable loss and LISN factor.
2. Uncertainty was calculated in accordance with NAMAS NIS 81.
Expanded uncertainty (k=2) of conducted emission measurement is ± 2.6 dB.