

ACER 
Acer NeWeb Corporation

Phone: +886 35428000 Fax: +886 35420098

6F, 110 Sec 2, Tung Ta Road, Hsinchu 300, Taiwan, R.O.C.

TO: David Chernomordik, Ph.D. **FROM:** Bob Lee
cc: Ollie Moyrong **eMail:** Bosqrelee@acer.com.tw
TEL #: (650)-463-2918 **Ext#** 601
FAX #: (650)-463-2910 **DATE:** 2001/03/09
Re: Explanation Letter 2411 **Number of Pages including this page:** 2

Dr. Chernomordik:

Attached is the explanation of PG data on model WarpLink2411.

For your reference.

Regards

Bob Lee

Bob Lee 010309#

Re: "Provide a letter from the manufacturer of the device for FCC ID: OSZ3163B1 verifying that not only is the chip the same but the RF and IF filters are the same."

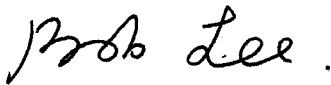
The product, FCC ID:NKRWLANWARPLINKP is implemented with the identical circuit of that of FCC ID: OSZ3163B1. Not only the IC chip sets but the IF filter are identical to the reference circuit. The only deviation to the reference circuit is the different brand of RF filters. For a complete evidence of the PG data, the actual test data of NKRWLANWARPLINKP is attached to this letter for review.[1] The PG data of [1], with the maximum 0.35dB deviation to the reference PG data, still pass the limit of 15.247(e). This is also verifying that ANC make every statement on the PG data issue following the reasonable theoretical or measurement fact.

This letter is to confirm the above statement.

[1]. RF90022613 Acer PROCESSING GAIN.pdf

From Acer NeWeb Corp.

Senior Director

A handwritten signature in cursive script that reads "Bob Lee".

Bob Lee.

Attachment [1].

RF90022613 Acer PROCESSING GAIN.pdf



PROCESSING GAIN TEST REPORT

REPORT NO.: RF90022613
MODEL NO.: WarpLink 2411
RECEIVED: February 26, 2001
TESTED: March 6, 2001

APPLICANT: Acer NeWeb Corporation

ADDRESS: 6F, No.110, Sec. 2, Tung Ta Road,
Hsinchu, Taiwan, R.O.C.

ISSUED BY: Advance Data Technology Corporation

LAB LOCATION: 13-1, Lane 19, Wen Shan 3rd St., Kweishan,
Taoyuan Hsien, Taiwan, R.O.C.

This test report consists of 30 pages in total. It may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product endorsement by NVLAP or any U.S. government agencies. The test results in the report only apply to the tested sample.



Accredited Laboratory

Table of Contents

1	CERTIFICATION	3
2	SUMMARY OF TEST RESULTS.....	4
3	GENERAL INFORMATION	5
3.1	GENERAL DESCRIPTION OF EUT	5
3.2	DESCRIPTION OF TEST MODES	5
3.3	GENERAL DESCRIPTION OF APPLIED STANDARDS	6
3.4	DESCRIPTION OF SUPPORT UNITS.....	6
4	TEST PROCEDURES AND RESULTS	7
4.1	LIMITS OF PROCESSING GAIN OF A DIRECT SEQUENCE SPREAD SPECTRUM MEASUREMENT	7
4.2	TEST INSTRUMENTS & SUPPORT UNIT	7
4.3	METHOD OF MEASUREMENT	8
4.4	TEST SETUP.....	9
4.5	TEST PROCEDURES	10
4.6	EUT OPERATING CONDITION.....	10
4.7	TEST RESULTS	11
5	INFORMATION ON THE TESTING LABORATORIES	29

ANNEX : PHOTO OF TEST CONFIGURATION



1 CERTIFICATION

PRODUCT : 11Mbps Wireless LAN PCMCIA Card
BRAND NAME : Acer
MODEL NO. : WarpLink 2411
APPLICANT : Acer NeWeb Corporation
STANDARDS : 47 CFR Part 15, Subpart C (Section 15.247 e2),
SITE REGISTRATION NO : 90422 (FCC)
NO : IC 3789-5 (Canada IC)

We, **Advance Data Technology Corporation**, hereby certify that one sample WA3001A of the designation has been tested in our facility on March 6, 2001.

The test record, data evaluation and Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions herein specified.

Tested by : Steven Lu , Date: March 6, 2001
Steven Lu

Prepared by : Demi Chen , Date: March 6, 2001
Demi Chen

Approved by : Alan Lane , Date: Mar. 6, 2001
Dr. Alan Lane, Manager



2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: 47 CFR Part 15, Subpart C			
STANDARD PARAGRAPH	TEST REQUIREMENTS	RESULT	REMARK
15.247(e)	Processing Gain of Direct Sequence Spread Spectrum System Spec.: min. 10 dB	PASS	20% points lower than 10dB is allowed

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	11Mbps Wireless LAN PCMCIA Card
MODEL NO.	WarpLink 2411
POWER SUPPLY	3.3VDC
DATA CABLE	
I/O PORTS	NA
MODULATION TYPE	DSSS BPSK/QPSK/CCK
TRANSFER RATE	11/5.5/2/1Mbps
FREQUENCY RANGE	2412 ~ 2462MHz
NUMBER OF CHANNEL	11
ANTENNA TYPE	
ASSOCIATED DEVICES	NA
DESCRIPTION BETWEEN MODELS	NA

3.2 DESCRIPTION OF TEST MODES

Eleven channels are provided in this EUT.

Channel	Frequency	Channel	Frequency
1	2412 MHz	7	2442 MHz
2	2417 MHz	8	2447 MHz
3	2422 MHz	9	2452 MHz
4	2427 MHz	10	2457 MHz
5	2432 MHz	11	2462 MHz
6	2437 MHz		

Note: Since the processing gain of data rate 11Mbps is lower than that of the other data rates, so only 11Mbps is shown in this test report.

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a 11Mbps Wireless LAN PCMCIA Card, according to the specifications of the manufacturers, it must comply with the requirements of the following standards:

FCC CFR 47 Part 15, Subpart C. (15.247 e2)

All tests have been performed and recorded as per the above standards.

3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No	Product	Brand	Model No.	Serial No.	I/O Cable
1	NOTEBOOK	DELL	Inspiron 5000e	TW-012JXN-12961- 0139-2192	Nonshielded Power (1.8m)
2	NOTEBOOK	DELL	PPX	99125	Nonshielded Power (1.8m)

4 TEST PROCEDURES AND RESULTS

4.1 LIMITS OF PROCESSING GAIN OF A DIRECT SEQUENCE SPREAD SPECTRUM MEASUREMENT

Discard the worst 20%, the limit is 10dB.

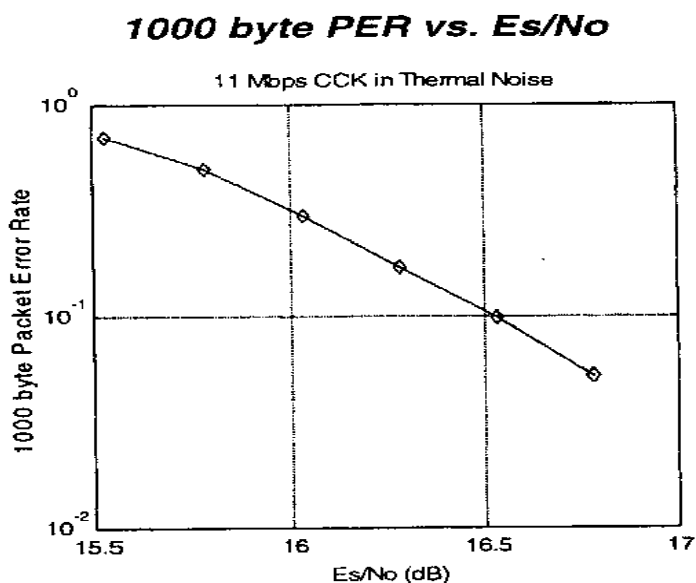
4.2 TEST INSTRUMENTS & SUPPORT UNIT

Description & Manufacturer	Model No.	Serial No.
Anritsu Spectrum Analyzer, 9kHz to 30GHz	MS2667C	M10281
Anritsu Signal Generator, 10kHz to 20GHz	68247B	984703
Hewlett Packard Power Meter,	HP438A	2743A04416
Hewlett Packard Power Sensor, -30 to 20dBm	8485A	2942A08387
Hewlett Packard Step Attenuator, 10dB steps	HP8496B	3247A18505
Mini-Circuits Power Splitter	ZN2PD-9G	NA
DELL Laptop Computer	Inspiron 5000e	TW-012JXN- 12961-0139-2192
DELL Laptop Computer	PPX	99125

4.3 METHOD OF MEASUREMENT

The processing gain may be measured using the CW jamming margin method. Section 4.4 shows the test configuration. The test consists of stepping a signal generator in 50 kHz increments across the passband of the system. At each point, the generator level required to produce the recommended Bit Error Rate (BER) is recorded. This level is jammer level. The output power of the transmitting unit is measured at the same point. The jammer to Signal (J/S) ratio is then calculated. Discard the worst 20% of the J/S data points. The lowest remaining J/S ratio is used when calculating the Process Gain.

The reference PER is specified as 8%. The corresponding Es/No (signal to noise ratio per symbol) is 16.4 dB. The curve is attached as below.



This value and the measured J/S ratio are used in the following equation to calculate the Process Gain (Gp) of the system.

$$G_p = (S/N)_o + M_j + L_{sys}$$

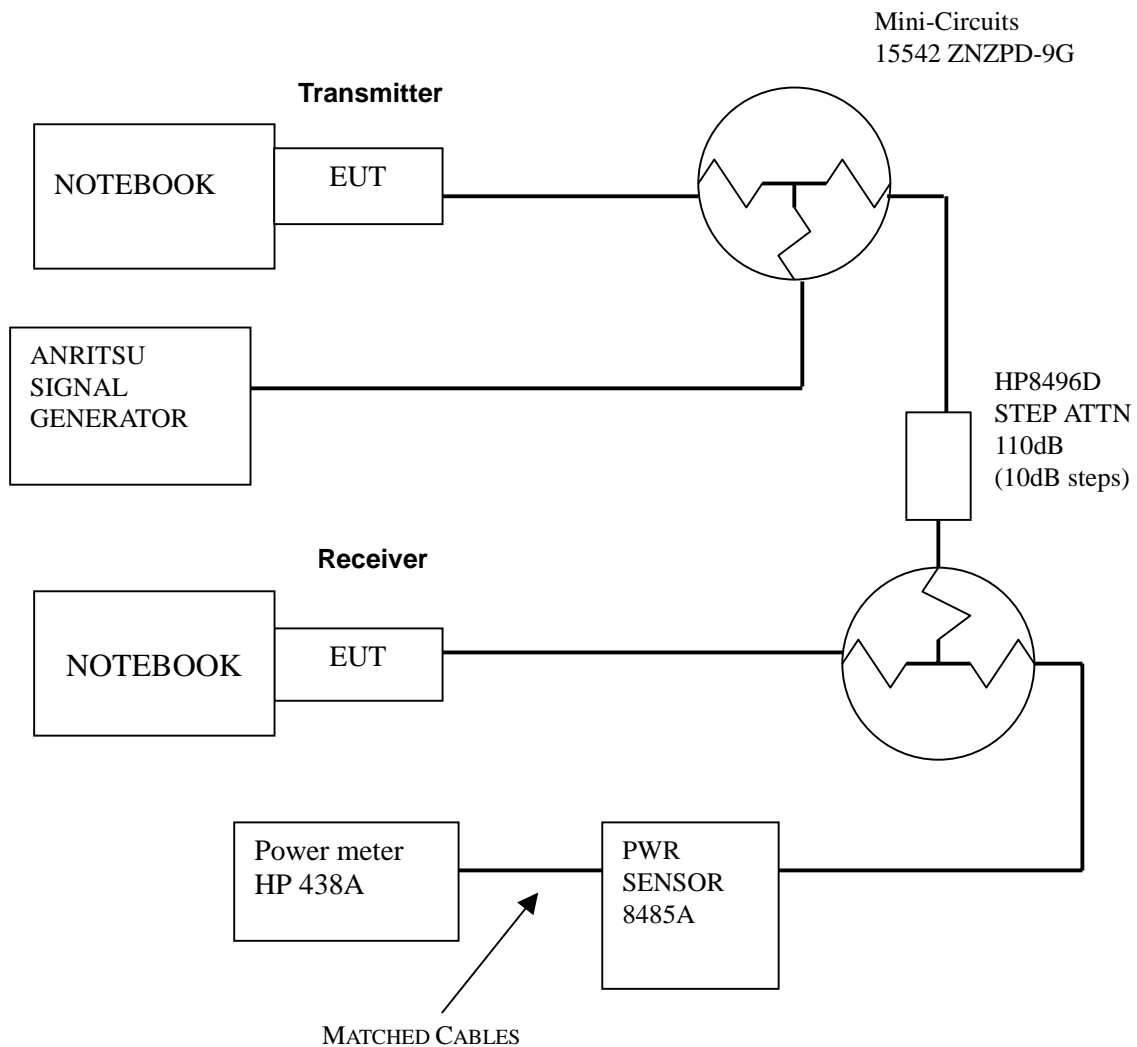
Where:

$(S/N)_0$: Signal to noise ratio for the chosen BER.

M_j : Maximum jammer to Signal Ratio recorded at the detected BER.

L_{sys} : System losses. We assume 1dB as the system Loss (maximum 2dB is allowed).

4.4 TEST SETUP





4.5 TEST PROCEDURES

Obtain the simplex link shown. Perform all independent instrumentation calibrations prior to this procedure. Set operating power levels using fixed and variable attenuators in system to meet the following objectives:

Signal Power at receiver approximately -55dBm (above thermal sensitivity such that thermal noise does not cause bit errors).

Signal Power at power meter between -20 and -30dBm for optimal linearity.

Use spectrum analyzer to monitor test.

Ensure that CW Jammer generator RF output is disabled and measure the power at the power meter port using the power meter. This is the relative signal power, S_r .

Disable Transmitter, and set CW Jammer generator RF output frequency equal to the carrier frequency and enable generator output. Set reference CW Jammer power level at power meter port 8.4dB below S_r (minimum J/S, or 10dB processing gain reference level). Note the power level setting on the generator, this is the reference CW Jammer power setting, J_r .

Disable CW Jammer, re-establish link. PER test should be operating essentially error -free.

Enable CW Jammer at the reference power level and verify that the PER test indicates a PER of less than 8%.

Alternatively, adjust the CW Jammer level to that which causes 8% PER and verify that the S/J is less than 8.4dB .

Repeat step 7 for uniform steps in frequency increments of 50 kHz across the receiver passband with the CW Jammer. In this case the receiver passband is $\pm 8.5\text{ MHz}$ over carrier frequency.

The numerical data associated with the following radio channel is tabulated and presented for Channel 1,6, and 11.

4.6 EUT OPERATING CONDITION

The software provided by client to set the EUT to transmit at lowest, middle and highest channel.

4.7 TEST RESULTS

EUT	11Mbps Wireless LAN PCMCIA CARD	Model	WarpLink 2411
Environmental Conditions	20°C, 70%RH	Tested By	Steven Lu

11Mbps CHANNEL 1 Processing Gain				
Frequency	Gp	(S/N) °	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.40800	12.29	16.4	-5.11	1
2.40805	12.33	16.4	-5.07	1
2.40810	12.37	16.4	-5.03	1
2.40815	12.30	16.4	-5.10	1
2.40820	12.24	16.4	-5.16	1
2.40825	12.23	16.4	-5.17	1
2.40830	12.21	16.4	-5.19	1
2.40835	12.15	16.4	-5.25	1
2.40840	11.90	16.4	-5.50	1
2.40845	11.80	16.4	-5.60	1
2.40850	11.65	16.4	-5.75	1
2.40855	11.40	16.4	-6.00	1
2.40860	11.59	16.4	-5.81	1
2.40865	11.40	16.4	-6.00	1
2.40870	11.47	16.4	-5.93	1
2.40875	11.42	16.4	-5.98	1
2.40880	11.40	16.4	-6.00	1
2.40885	11.30	16.4	-6.10	1
2.40890	11.44	16.4	-5.96	1
2.40895	11.42	16.4	-5.98	1

11Mbps CHANNEL 1 Processing Gain				
Frequency	Gp	(S/N) °	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.40900	11.41	16.4	-5.99	1
2.40950	10.96	16.4	-6.44	1
2.40955	10.85	16.4	-6.55	1
2.40960	11.00	16.4	-6.40	1
2.40965	11.00	16.4	-6.40	1
2.40970	11.00	16.4	-6.40	1
2.40975	11.00	16.4	-6.40	1
2.40980	11.00	16.4	-6.40	1
2.40985	10.99	16.4	-6.41	1
2.40990	10.98	16.4	-6.42	1
2.40995	10.96	16.4	-6.44	1
2.41000	10.92	16.4	-6.48	1
2.41005	11.00	16.4	-6.40	1
2.41010	11.01	16.4	-6.39	1
2.41015	11.05	16.4	-6.35	1
2.41020	11.07	16.4	-6.33	1
2.41025	11.00	16.4	-6.40	1
2.41030	11.14	16.4	-6.26	1
2.41035	16.14	16.4	-1.26	1
2.41040	11.16	16.4	-6.24	1
2.41045	11.20	16.4	-6.20	1
2.41050	11.22	16.4	-6.18	1
2.41055	11.35	16.4	-6.05	1
2.41060	11.39	16.4	-6.01	1
2.41065	11.45	16.4	-5.95	1
2.41070	11.47	16.4	-5.93	1
2.41075	11.50	16.4	-5.90	1
2.41080	11.54	16.4	-5.86	1
2.41085	9.58	16.4	-7.82	1
2.41090	11.60	16.4	-5.80	1
2.41095	12.64	16.4	-4.76	1
2.41100	11.67	16.4	-5.73	1
2.41105	11.68	16.4	-5.72	1
2.41110	11.70	16.4	-5.70	1
2.41115	11.80	16.4	-5.60	1

11Mbps CHANNEL 1 Processing Gain				
Frequency	Gp	(S/N) °	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.41120	11.81	16.4	-5.59	1
2.41125	11.98	16.4	-5.42	1
2.41130	12.00	16.4	-5.40	1
2.41135	12.10	16.4	-5.30	1
2.41140	12.28	16.4	-5.12	1
2.41145	12.41	16.4	-4.99	1
2.41150	12.43	16.4	-4.97	1
2.41155	12.51	16.4	-4.89	1
2.41160	12.56	16.4	-4.84	1
2.41165	12.62	16.4	-4.78	1
2.41170	12.56	16.4	-4.84	1
2.41175	12.56	16.4	-4.84	1
2.41180	12.51	16.4	-4.89	1
2.41185	12.53	16.4	-4.87	1
2.41190	12.42	16.4	-4.98	1
2.41195	12.35	16.4	-5.05	1
2.41200	12.20	16.4	-5.20	1
2.41205	12.25	16.4	-5.15	1
2.41210	12.20	16.4	-5.20	1
2.41215	12.39	16.4	-5.01	1
2.41220	12.50	16.4	-4.90	1
2.41225	12.57	16.4	-4.83	1
2.41230	12.59	16.4	-4.81	1
2.41235	12.59	16.4	-4.81	1
2.41240	12.59	16.4	-4.81	1
2.41245	12.48	16.4	-4.92	1
2.41250	12.23	16.4	-5.17	1
2.41255	12.20	16.4	-5.20	1
2.41260	12.09	16.4	-5.31	1
2.41265	11.99	16.4	-5.41	1
2.41270	11.89	16.4	-5.51	1
2.41275	11.89	16.4	-5.51	1
2.41280	11.89	16.4	-5.51	1
2.41285	11.90	16.4	-5.50	1
2.41290	11.91	16.4	-5.49	1
2.41295	11.91	16.4	-5.49	1

11Mbps CHANNEL 1 Processing Gain				
Frequency	Gp	(S/N) °	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.41300	11.90	16.4	-5.50	1
2.41305	11.70	16.4	-5.70	1
2.41310	11.87	16.4	-5.53	1
2.41315	11.75	16.4	-5.65	1
2.41320	11.72	16.4	-5.68	1
2.41325	11.60	16.4	-5.80	1
2.41330	11.41	16.4	-5.99	1
2.41335	11.40	16.4	-6.00	1
2.41340	11.21	16.4	-6.19	1
2.41345	11.20	16.4	-6.20	1
2.41350	11.18	16.4	-6.22	1
2.41355	11.32	16.4	-6.08	1
2.41360	11.33	16.4	-6.07	1
2.41365	11.35	16.4	-6.05	1
2.41370	11.39	16.4	-6.01	1
2.41375	11.42	16.4	-5.98	1
2.41380	11.44	16.4	-5.96	1
2.41385	11.39	16.4	-6.01	1
2.41390	11.33	16.4	-6.07	1
2.41395	11.30	16.4	-6.10	1
2.41400	11.10	16.4	-6.30	1
2.41405	11.05	16.4	-6.35	1
2.41410	10.99	16.4	-6.41	1
2.41415	10.70	16.4	-6.70	1
2.41420	10.89	16.4	-6.51	1
2.41425	10.95	16.4	-6.45	1
2.41430	11.00	16.4	-6.40	1
2.41435	11.00	16.4	-6.40	1
2.41440	11.01	16.4	-6.39	1
2.41445	11.02	16.4	-6.38	1
2.41450	11.04	16.4	-6.36	1
2.41455	11.06	16.4	-6.34	1
2.41460	11.09	16.4	-6.31	1
2.41465	11.10	16.4	-6.30	1
2.41470	11.12	16.4	-6.28	1
2.41475	11.15	16.4	-6.25	1

11Mbps CHANNEL 1 Processing Gain				
Frequency	Gp	(S/N) °	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.41480	11.16	16.4	-6.24	1
2.41485	11.16	16.4	-6.24	1
2.41490	11.18	16.4	-6.22	1
2.41495	11.33	16.4	-6.07	1
2.41500	11.35	16.4	-6.05	1
2.41505	11.45	16.4	-5.95	1
2.41510	11.47	16.4	-5.93	1
2.41515	11.50	16.4	-5.90	1
2.41520	11.52	16.4	-5.88	1
2.41525	11.68	16.4	-5.72	1
2.41530	11.71	16.4	-5.69	1
2.41535	11.76	16.4	-5.64	1
2.41540	11.78	16.4	-5.62	1
2.41545	11.81	16.4	-5.59	1
2.41550	11.91	16.4	-5.49	1
2.41555	12.08	16.4	-5.32	1
2.41560	12.17	16.4	-5.23	1
2.41565	12.18	16.4	-5.22	1
2.41570	12.20	16.4	-5.20	1
2.41575	12.21	16.4	-5.19	1
2.41580	12.22	16.4	-5.18	1
2.41585	12.23	16.4	-5.17	1
2.41590	12.25	16.4	-5.15	1
2.41595	12.30	16.4	-5.10	1
2.41600	12.31	16.4	-5.09	1
2.41605	12.48	16.4	-4.92	1
2.41610	12.53	16.4	-4.87	1
2.41615	12.55	16.4	-4.85	1
2.41620	12.58	16.4	-4.82	1
2.41625	9.64	16.4	-7.76	1
2.41630	12.85	16.4	-4.55	1
2.41635	12.88	16.4	-4.52	1
2.41640	12.91	16.4	-4.49	1
2.41645	12.91	16.4	-4.49	1
2.41650	12.92	16.4	-4.48	1
2.41655	12.97	16.4	-4.43	1

11Mbps CHANNEL 1 Processing Gain				
Frequency	Gp	(S/N) °	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.41660	12.99	16.4	-4.41	1
2.41665	12.73	16.4	-4.67	1
2.41670	12.76	16.4	-4.64	1
2.41675	12.89	16.4	-4.51	1
2.41680	12.91	16.4	-4.49	1
2.41685	13.19	16.4	-4.21	1
2.41690	13.33	16.4	-4.07	1
2.41695	13.43	16.4	-3.97	1
2.41700	13.53	16.4	-3.87	1
2.41705	13.63	16.4	-3.77	1
2.41710	13.81	16.4	-3.59	1
2.41715	13.78	16.4	-3.62	1
2.41720	13.76	16.4	-3.64	1
2.41725	13.49	16.4	-3.91	1
2.41730	13.50	16.4	-3.90	1
2.41735	13.45	16.4	-3.95	1
2.41740	13.40	16.4	-4.00	1
2.41745	13.39	16.4	-4.01	1
2.41750	13.38	16.4	-4.02	1
2.41755	13.63	16.4	-3.77	1
2.41760	13.78	16.4	-3.62	1
2.41765	14.05	16.4	-3.35	1
2.41770	14.11	16.4	-3.29	1
2.41775	14.30	16.4	-3.10	1
2.41780	15.00	16.4	-2.40	1
2.41785	15.01	16.4	-2.39	1
2.41790	15.03	16.4	-2.37	1
2.41795	15.03	16.4	-2.37	1
2.41800	15.03	16.4	-2.37	1
Processing Gain : 11.85 dB				

11Mbps CHANNEL 6 Processing Gain				
Freq.	Gp	(S/N) °	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.43200	13.42	16.4	-3.98	1
2.43205	13.39	16.4	-4.01	1
2.43210	13.24	16.4	-4.16	1
2.43215	13.10	16.4	-4.30	1
2.43220	13.01	16.4	-4.39	1
2.43225	13.01	16.4	-4.39	1
2.43230	13.03	16.4	-4.37	1
2.43235	13.03	16.4	-4.37	1
2.43240	13.03	16.4	-4.37	1
2.43245	13.05	16.4	-4.35	1
2.43250	13.05	16.4	-4.35	1
2.43255	13.06	16.4	-4.34	1
2.43260	13.07	16.4	-4.33	1
2.43265	12.70	16.4	-4.70	1
2.43270	12.75	16.4	-4.65	1
2.43275	13.60	16.4	-3.80	1
2.43280	12.49	16.4	-4.91	1
2.43285	12.46	16.4	-4.94	1
2.43290	12.41	16.4	-4.99	1
2.43295	12.31	16.4	-5.09	1
2.43300	12.21	16.4	-5.19	1
2.43305	12.21	16.4	-5.19	1
2.43310	12.23	16.4	-5.17	1
2.43315	12.22	16.4	-5.18	1
2.43320	12.21	16.4	-5.19	1
2.43325	12.18	16.4	-5.22	1
2.43330	12.16	16.4	-5.24	1
2.43335	11.70	16.4	-5.70	1
2.43340	11.79	16.4	-5.61	1
2.43345	11.60	16.4	-5.80	1
2.43350	11.62	16.4	-5.78	1
2.43355	11.62	16.4	-5.78	1
2.43360	11.60	16.4	-5.80	1
2.43365	11.50	16.4	-5.90	1
2.43370	11.51	16.4	-5.89	1
2.43375	11.22	16.4	-6.18	1

11Mbps CHANNEL 6 Processing Gain				
Freq.	Gp	(S/N) °	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.43380	11.19	16.4	-6.21	1
2.43385	11.21	16.4	-6.19	1
2.43390	11.23	16.4	-6.17	1
2.43395	11.23	16.4	-6.17	1
2.43400	11.23	16.4	-6.17	1
2.43405	11.19	16.4	-6.21	1
2.43410	11.18	16.4	-6.22	1
2.43415	10.90	16.4	-6.50	1
2.43420	10.93	16.4	-6.47	1
2.43425	10.85	16.4	-6.55	1
2.43430	10.87	16.4	-6.53	1
2.43435	10.83	16.4	-6.57	1
2.43440	10.84	16.4	-6.56	1
2.43445	10.70	16.4	-6.70	1
2.43450	10.73	16.4	-6.67	1
2.43455	13.60	16.4	-3.80	1
2.43460	10.79	16.4	-6.61	1
2.43465	10.80	16.4	-6.60	1
2.43470	10.84	16.4	-6.56	1
2.43475	10.86	16.4	-6.54	1
2.43480	10.86	16.4	-6.54	1
2.43485	10.85	16.4	-6.55	1
2.43490	10.83	16.4	-6.57	1
2.43495	10.89	16.4	-6.51	1
2.43500	10.90	16.4	-6.50	1
2.43505	11.10	16.4	-6.30	1
2.43510	11.12	16.4	-6.28	1
2.43515	11.11	16.4	-6.29	1
2.43520	11.10	16.4	-6.30	1
2.43525	11.04	16.4	-6.36	1
2.43530	11.06	16.4	-6.34	1
2.43535	11.04	16.4	-6.36	1
2.43540	11.02	16.4	-6.38	1
2.43545	11.03	16.4	-6.37	1

11Mbps CHANNEL 6 Processing Gain				
Freq.	Gp	(S/N) °	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.43550	11.05	16.4	-6.35	1
2.43555	11.12	16.4	-6.28	1
2.43560	11.14	16.4	-6.26	1
2.43565	11.20	16.4	-6.20	1
2.43570	11.29	16.4	-6.11	1
2.43575	11.25	16.4	-6.15	1
2.43580	11.49	16.4	-5.91	1
2.43585	11.58	16.4	-5.82	1
2.43590	11.62	16.4	-5.78	1
2.43595	11.62	16.4	-5.78	1
2.43600	11.62	16.4	-5.78	1
2.43605	11.58	16.4	-5.82	1
2.43610	11.59	16.4	-5.81	1
2.43615	11.57	16.4	-5.83	1
2.43620	11.57	16.4	-5.83	1
2.43625	11.68	16.4	-5.72	1
2.43630	11.78	16.4	-5.62	1
2.43635	11.90	16.4	-5.50	1
2.43640	11.93	16.4	-5.47	1
2.43645	12.00	16.4	-5.40	1
2.43650	12.23	16.4	-5.17	1
2.43655	12.37	16.4	-5.03	1
2.43660	12.40	16.4	-5.00	1
2.43665	12.48	16.4	-4.92	1
2.43670	12.51	16.4	-4.89	1
2.43675	12.45	16.4	-4.95	1
2.43680	12.41	16.4	-4.99	1
2.43685	12.36	16.4	-5.04	1
2.43690	12.33	16.4	-5.07	1
2.43695	12.27	16.4	-5.13	1
2.43700	12.22	16.4	-5.18	1
2.43705	12.24	16.4	-5.16	1
2.43710	12.27	16.4	-5.13	1
2.43715	12.36	16.4	-5.04	1

11Mbps CHANNEL 6 Processing Gain				
Freq.	Gp	(S/N) °	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.43720	12.43	16.4	-4.97	1
2.43725	12.48	16.4	-4.92	1
2.43730	12.51	16.4	-4.89	1
2.43735	12.52	16.4	-4.88	1
2.43740	12.56	16.4	-4.84	1
2.43745	12.55	16.4	-4.85	1
2.43750	12.34	16.4	-5.06	1
2.43755	12.30	16.4	-5.10	1
2.43760	12.20	16.4	-5.20	1
2.43765	12.13	16.4	-5.27	1
2.43770	12.07	16.4	-5.33	1
2.43775	11.80	16.4	-5.60	1
2.43780	11.92	16.4	-5.48	1
2.43785	11.92	16.4	-5.48	1
2.43790	11.93	16.4	-5.47	1
2.43795	11.93	16.4	-5.47	1
2.43800	11.92	16.4	-5.48	1
2.43805	11.91	16.4	-5.49	1
2.43810	11.90	16.4	-5.50	1
2.43815	11.80	16.4	-5.60	1
2.43820	11.82	16.4	-5.58	1
2.43825	11.70	16.4	-5.70	1
2.43830	11.55	16.4	-5.85	1
2.43835	11.50	16.4	-5.90	1
2.43840	11.46	16.4	-5.94	1
2.43845	11.30	16.4	-6.10	1
2.43850	11.23	16.4	-6.17	1
2.43855	11.30	16.4	-6.10	1
2.43860	11.32	16.4	-6.08	1
2.43865	11.32	16.4	-6.08	1
2.43870	11.32	16.4	-6.08	1
2.43875	11.38	16.4	-6.02	1
2.43880	11.45	16.4	-5.95	1
2.43885	11.45	16.4	-5.95	1

11Mbps CHANNEL 6 Processing Gain				
Freq.	Gp	(S/N) °	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.43890	11.45	16.4	-5.95	1
2.43895	11.20	16.4	-6.20	1
2.43900	11.30	16.4	-6.10	1
2.43905	11.28	16.4	-6.12	1
2.43910	11.15	16.4	-6.25	1
2.43915	11.11	16.4	-6.29	1
2.43920	11.10	16.4	-6.30	1
2.43925	11.08	16.4	-6.32	1
2.43930	11.08	16.4	-6.32	1
2.43935	11.09	16.4	-6.31	1
2.43940	11.09	16.4	-6.31	1
2.43945	10.80	16.4	-6.60	1
2.43950	10.97	16.4	-6.43	1
2.43955	11.00	16.4	-6.40	1
2.43960	11.04	16.4	-6.36	1
2.43965	11.06	16.4	-6.34	1
2.43970	11.08	16.4	-6.32	1
2.43975	11.18	16.4	-6.22	1
2.43980	11.23	16.4	-6.17	1
2.43985	11.30	16.4	-6.10	1
2.43990	11.32	16.4	-6.08	1
2.43995	11.38	16.4	-6.02	1
2.44000	11.40	16.4	-6.00	1
2.44005	11.45	16.4	-5.95	1
2.44010	11.46	16.4	-5.94	1
2.44015	11.48	16.4	-5.92	1
2.44020	11.49	16.4	-5.91	1
2.44025	11.50	16.4	-5.90	1
2.44030	11.61	16.4	-5.79	1
2.44035	11.66	16.4	-5.74	1
2.44040	11.67	16.4	-5.73	1
2.44045	11.78	16.4	-5.62	1
2.44050	11.83	16.4	-5.57	1
2.44055	12.00	16.4	-5.40	1

11Mbps CHANNEL 6 Processing Gain				
Freq.	Gp	(S/N) °	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.44060	12.20	16.4	-5.20	1
2.44065	12.21	16.4	-5.19	1
2.44070	12.21	16.4	-5.19	1
2.44075	12.22	16.4	-5.18	1
2.44080	12.23	16.4	-5.17	1
2.44085	12.23	16.4	-5.17	1
2.44090	12.23	16.4	-5.17	1
2.44095	12.24	16.4	-5.16	1
2.44100	12.24	16.4	-5.16	1
2.44105	12.36	16.4	-5.04	1
2.44110	12.40	16.4	-5.00	1
2.44115	12.45	16.4	-4.95	1
2.44120	12.48	16.4	-4.92	1
2.44125	12.70	16.4	-4.70	1
2.44130	12.81	16.4	-4.59	1
2.44135	12.88	16.4	-4.52	1
2.44140	12.90	16.4	-4.50	1
2.44145	12.89	16.4	-4.51	1
2.44150	12.88	16.4	-4.52	1
2.44155	12.90	16.4	-4.50	1
2.44160	12.90	16.4	-4.50	1
2.44165	12.85	16.4	-4.55	1
2.44170	12.76	16.4	-4.64	1
2.44175	12.79	16.4	-4.61	1
2.44180	12.81	16.4	-4.59	1
2.44185	13.19	16.4	-4.21	1
2.44190	13.14	16.4	-4.26	1
2.44195	13.35	16.4	-4.05	1
2.44200	13.41	16.4	-3.99	1
Processing Gain : 11.7 dB				

11Mbps CHANNEL 11 Processing Gain				
Freq.	Gp	(S/N) °	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.45700	13.20	16.4	-4.20	1
2.45705	13.15	16.4	-4.25	1
2.45710	13.01	16.4	-4.39	1
2.45715	12.90	16.4	-4.50	1
2.45720	12.73	16.4	-4.67	1
2.45725	12.75	16.4	-4.65	1
2.45730	12.80	16.4	-4.60	1
2.45735	12.85	16.4	-4.55	1
2.45740	12.89	16.4	-4.51	1
2.45745	12.89	16.4	-4.51	1
2.45750	12.89	16.4	-4.51	1
2.45755	12.89	16.4	-4.51	1
2.45760	12.89	16.4	-4.51	1
2.45765	12.60	16.4	-4.80	1
2.45770	12.41	16.4	-4.99	1
2.45775	12.35	16.4	-5.05	1
2.45780	12.15	16.4	-5.25	1
2.45785	12.12	16.4	-5.28	1
2.45790	12.04	16.4	-5.36	1
2.45795	11.80	16.4	-5.60	1
2.45800	11.93	16.4	-5.47	1
2.45805	11.85	16.4	-5.55	1
2.45810	11.88	16.4	-5.52	1
2.45815	11.84	16.4	-5.56	1
2.45820	11.83	16.4	-5.57	1
2.45825	11.80	16.4	-5.60	1
2.45830	11.75	16.4	-5.65	1
2.45835	11.63	16.4	-5.77	1
2.45840	11.43	16.4	-5.97	1
2.45845	11.39	16.4	-6.01	1
2.45850	11.37	16.4	-6.03	1
2.45855	11.36	16.4	-6.04	1
2.45860	11.34	16.4	-6.06	1
2.45865	11.30	16.4	-6.10	1

11Mbps CHANNEL 11 Processing Gain				
Freq.	Gp	(S/N) °	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.45870	11.17	16.4	-6.23	1
2.45875	11.15	16.4	-6.25	1
2.45880	11.10	16.4	-6.30	1
2.45885	11.10	16.4	-6.30	1
2.45890	11.11	16.4	-6.29	1
2.45895	11.08	16.4	-6.32	1
2.45900	11.05	16.4	-6.35	1
2.45905	11.03	16.4	-6.37	1
2.45910	11.03	16.4	-6.37	1
2.45915	10.70	16.4	-6.70	1
2.45920	10.72	16.4	-6.68	1
2.45925	10.60	16.4	-6.80	1
2.45930	10.69	16.4	-6.71	1
2.45935	10.68	16.4	-6.72	1
2.45940	10.67	16.4	-6.73	1
2.45945	10.66	16.4	-6.74	1
2.45950	10.65	16.4	-6.75	1
2.45955	10.68	16.4	-6.72	1
5.45960	10.77	16.4	-6.63	1
2.45965	10.77	16.4	-6.63	1
2.45970	10.76	16.4	-6.64	1
2.45975	10.75	16.4	-6.65	1
2.45980	10.74	16.4	-6.66	1
2.45985	10.75	16.4	-6.65	1
2.45990	10.85	16.4	-6.55	1
2.45995	10.95	16.4	-6.45	1
2.46000	10.96	16.4	-6.44	1
2.46005	10.97	16.4	-6.43	1
2.46010	10.96	16.4	-6.44	1
2.46015	10.96	16.4	-6.44	1
2.46020	10.95	16.4	-6.45	1
2.46025	10.95	16.4	-6.45	1
2.46030	10.95	16.4	-6.45	1
2.46035	10.94	16.4	-6.46	1
2.46040	10.90	16.4	-6.50	1
2.46045	10.96	16.4	-6.44	1

11Mbps CHANNEL 11 Processing Gain				
Freq.	Gp	(S/N) °	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.46050	10.96	16.4	-6.44	1
2.46055	11.00	16.4	-6.40	1
2.46060	11.06	16.4	-6.34	1
2.46065	11.15	16.4	-6.25	1
2.46070	11.26	16.4	-6.14	1
2.46075	11.36	16.4	-6.04	1
2.46080	11.46	16.4	-5.94	1
2.46085	11.46	16.4	-5.94	1
2.46090	11.46	16.4	-5.94	1
2.46095	11.48	16.4	-5.92	1
2.46100	11.51	16.4	-5.89	1
2.46105	11.51	16.4	-5.89	1
2.46110	11.50	16.4	-5.90	1
2.46115	11.55	16.4	-5.85	1
2.46120	11.57	16.4	-5.83	1
2.46125	11.60	16.4	-5.80	1
2.46130	11.67	16.4	-5.73	1
2.46135	11.85	16.4	-5.55	1
2.46140	11.91	16.4	-5.49	1
2.46145	11.90	16.4	-5.50	1
2.46150	12.20	16.4	-5.20	1
2.46155	12.10	16.4	-5.30	1
2.46160	12.30	16.4	-5.10	1
2.46165	12.34	16.4	-5.06	1
2.46170	12.25	16.4	-5.15	1
2.46175	12.20	16.4	-5.20	1
2.46180	12.16	16.4	-5.24	1
2.46185	12.14	16.4	-5.26	1
2.46190	12.10	16.4	-5.30	1
2.46195	12.08	16.4	-5.32	1
2.46200	12.08	16.4	-5.32	1
2.46205	12.08	16.4	-5.32	1
2.46210	12.06	16.4	-5.34	1
2.46215	12.08	16.4	-5.32	1

11Mbps CHANNEL 11 Processing Gain				
Freq.	Gp	(S/N) °	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.46220	12.29	16.4	-5.11	1
2.46225	12.33	16.4	-5.07	1
2.46230	12.43	16.4	-4.97	1
2.46235	12.43	16.4	-4.97	1
2.46240	12.44	16.4	-4.96	1
2.46245	12.40	16.4	-5.00	1
2.46250	12.12	16.4	-5.28	1
2.46255	11.80	16.4	-5.60	1
2.46260	11.87	16.4	-5.53	1
2.46265	11.70	16.4	-5.70	1
2.46270	11.78	16.4	-5.62	1
2.46275	11.70	16.4	-5.70	1
2.46280	11.68	16.4	-5.72	1
2.46285	11.68	16.4	-5.72	1
2.46290	11.68	16.4	-5.72	1
2.46295	11.68	16.4	-5.72	1
2.46300	11.69	16.4	-5.71	1
2.46305	11.69	16.4	-5.71	1
2.46310	11.69	16.4	-5.71	1
2.46315	11.68	16.4	-5.72	1
2.46320	11.66	16.4	-5.74	1
2.46325	11.40	16.4	-6.00	1
2.46330	11.35	16.4	-6.05	1
2.46335	11.30	16.4	-6.10	1
2.46340	11.27	16.4	-6.13	1
2.46345	11.15	16.4	-6.25	1
2.46350	11.08	16.4	-6.32	1
2.46355	11.10	16.4	-6.30	1
2.46360	11.11	16.4	-6.29	1
2.46365	11.11	16.4	-6.29	1
2.46370	11.12	16.4	-6.28	1
2.46375	11.15	16.4	-6.25	1
2.46380	11.18	16.4	-6.22	1
2.46385	11.20	16.4	-6.20	1

11Mbps CHANNEL 11 Processing Gain				
Freq.	Gp	(S/N) °	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.46390	11.22	16.4	-6.18	1
2.46395	11.20	16.4	-6.20	1
2.46400	11.19	16.4	-6.21	1
2.46405	11.15	16.4	-6.25	1
2.46410	11.11	16.4	-6.29	1
2.46415	11.08	16.4	-6.32	1
2.46420	11.04	16.4	-6.36	1
2.46425	10.80	16.4	-6.60	1
2.46430	10.97	16.4	-6.43	1
2.46435	10.95	16.4	-6.45	1
2.46440	10.91	16.4	-6.49	1
2.46445	10.80	16.4	-6.60	1
2.46450	10.87	16.4	-6.53	1
2.46455	10.87	16.4	-6.53	1
2.46460	10.87	16.4	-6.53	1
2.46465	10.90	16.4	-6.50	1
2.46470	10.90	16.4	-6.50	1
2.46475	10.95	16.4	-6.45	1
2.46480	10.99	16.4	-6.41	1
2.46485	11.10	16.4	-6.30	1
2.46490	11.12	16.4	-6.28	1
2.46495	11.20	16.4	-6.20	1
2.46500	11.25	16.4	-6.15	1
2.46505	11.30	16.4	-6.10	1
2.46510	11.32	16.4	-6.08	1
2.46515	11.31	16.4	-6.09	1
2.46520	11.31	16.4	-6.09	1
2.46525	11.30	16.4	-6.10	1
2.46530	11.46	16.4	-5.94	1
2.46535	11.50	16.4	-5.90	1
2.46540	11.54	16.4	-5.86	1
2.46545	11.68	16.4	-5.72	1
2.46550	11.69	16.4	-5.71	1

11Mbps CHANNEL 11 Processing Gain				
Freq.	Gp	(S/N) °	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.46555	12.00	16.4	-5.40	1
2.46560	12.01	16.4	-5.39	1
2.46565	12.04	16.4	-5.36	1
2.46570	12.06	16.4	-5.34	1
2.46575	12.06	16.4	-5.34	1
2.46580	12.07	16.4	-5.33	1
2.46585	12.06	16.4	-5.34	1
2.46590	12.06	16.4	-5.34	1
2.46595	12.04	16.4	-5.36	1
2.46600	12.04	16.4	-5.36	1
2.46605	12.06	16.4	-5.34	1
2.46610	12.10	16.4	-5.30	1
2.46615	12.20	16.4	-5.20	1
2.46620	12.22	16.4	-5.18	1
2.46625	12.40	16.4	-5.00	1
2.46630	12.66	16.4	-4.74	1
2.46635	12.77	16.4	-4.63	1
2.46640	12.87	16.4	-4.53	1
2.46645	12.80	16.4	-4.60	1
2.46650	12.77	16.4	-4.63	1
2.46655	12.80	16.4	-4.60	1
2.46660	12.89	16.4	-4.51	1
2.46665	12.60	16.4	-4.80	1
2.46670	12.77	16.4	-4.63	1
2.46675	12.77	16.4	-4.63	1
2.46680	12.77	16.4	-4.63	1
2.46685	13.04	16.4	-4.36	1
2.46690	13.06	16.4	-4.34	1
2.46695	13.15	16.4	-4.25	1
2.46700	13.27	16.4	-4.13	1
Processing Gain : 11.65 dB				



5 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 by the following approval agencies according to ISO/IEC Guide 25 or EN 45001:

USA	FCC, NVLAP
Germany	TUV Rheinland
Japan	VCCI
New Zealand	RFS
Norway	NEMKO, DNV
U.K.	INCHCAPE
R.O.C.	BSMI

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.

If you have any comments, please feel free to contact us at the following:

Lin Kou EMC Lab:

Tel: 886-2-26052180

Fax: 886-2-26052943

Hsin Chu EMC Lab:

Tel: 886-35-935343

Fax: 886-35-935342

Lin Kou Safety Lab:

Tel: 886-2-26093195

Fax: 886-2-26093184

Design Center:

Tel: 886-2-26093195

Fax: 886-2-26093184

Email: service@mail.adt.com.tw

Web Site: www.adt.com.tw

ANNEX : PHOTO OF TEST CONFIGURATION

