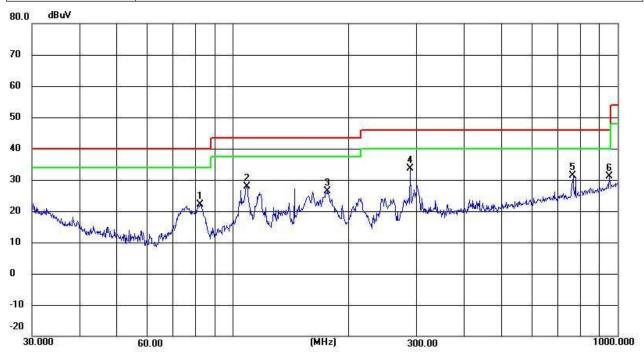


(30MHz-1000MHz)

Temperature:	24.7°C	Relative Humidity:	61%
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	802.11b(worst)		



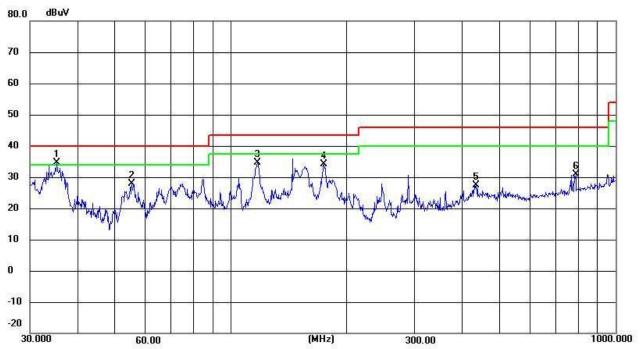
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	35.2512	45.29	- 10.77	34.52	40.00	-5.48	QP
2	55.2207	47.40	- 19.53	27.87	40.00	- 12. 13	QP
3	116.9495	66.96	-32.28	34.68	43.50	-8.82	QP
4	174.4241	66.34	-32.23	34.11	43.50	-9.39	QP
5	434.0651	59.33	-31.97	27.36	46.00	- 18.64	QP
6	787.8513	62.51	-31.52	30.99	46.00	- 15.01	QP

Note: 1. Margin = Result (Result = Reading + Factor)—Limit

- 2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
- 3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.



Temperature:	22.7℃	Relative Humidity:	61%
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	802.11b(worst)		



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	82.0706	54.30	-32.26	22.04	40.00	- 17.96	QP
2	108.6470	60.12	-32.29	27.83	43.50	- 15.67	QP
3	175.6516	58.72	-32.22	26.50	43.50	- 17.00	QP
4	289.0021	65.76	-32. 11	33.65	46.00	- 12.35	QP
5	766.0571	62.89	-31.55	31.34	46.00	- 14.66	QP
6	952.0937	62.59	-31.35	31.24	46.00	- 14.76	QP

Note: 1. Margin = Result (Result = Reading + Factor)—Limit

- 2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
- 3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.





(1GHz~25GHz) Restricted band and Spurious emission Requirements 802.11b(Worst)-Low

Peak value:

Peak value:		X-		90	X 00		ike-	90 90
Frequency (MHz)	Read Leve l (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4824.00	41.51	31.78	8.60	32.09	49.80	74.00	-24.20	Vertical
7236.00	35.14	36.15	11.65	32.00	50.94	74.00	-23.06	Vertical
9648.00	33.82	37.95	14.14	31.62	54.29	74.00	-19.71	Vertical
12060.00	*					74.00	5	Vertica l
14472.00	*					74.00		Vertical
16884.00	*					74.00		Vertical
4824.00	40.04	31.78	8.60	32.09	48.33	74.00	-25.67	Horizontal
7236.00	35.15	36.15	11.65	32.00	50.95	74.00	-23.05	Horizontal
9648.00	32.80	37.95	14.14	31.62	53.27	74.00	-20.73	Horizontal
12060.00	*					74.00	ž.	Horizontal
14472.00	*					74.00		Horizontal
16884.00	*					74.00		Horizontal

Average value:

Average val	ue.	8 7	5	Wat to the same of	8	5	25	15
Frequency (MHz)	Read Leve l (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4824.00	30.56	31.78	8.60	32.09	38.85	54.00	-15.15	Vertical
7236.00	24.00	36.15	11.65	32.00	39.80	54,00	- 14.20	Vertical
9648.00	24.16	37.95	14.14	31.62	44.63	54.00	- 9.37	Vertical
12060.00	*					54.00		Vertical
14472.00	*					54.00		Vertical
16884.00	*					54.00		Vertical
4824.00	29.55	31.78	8.60	32.09	37.84	54.00	-16.16	Horizontal
7236.00	23.72	36.15	11.65	32.00	39.52	54.00	-14.48	Horizontal
9648.00	22.54	37.95	14.14	31.62	43.01	54.00	-10.99	Horizontal
12060.00	*					54.00	÷	Horizontal
14472.00	*	*		· · · · · · · · · · · · · · · · · · ·		54.00		Horizontal
16884.00	*					54.00		Horizontal

Remark:

^{1.} Final Level =Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor

^{2. &}quot;*", means this data is the too weak instrument of signal is unable to test.



802.11b(Worst)-Middle

Peak value:

Peak value:								
Frequency (MHz)	Read Leve l (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	po l arization
4874.00	40.49	31.85	8.67	32.12	48.89	74.00	-25.11	Vertical
7311.00	35.17	36.37	11.72	31.89	51.37	74.00	-22.63	Vertical
9748.00	34.80	38.35	14.25	31.62	55.78	74.00	-18.22	Vertical
12185.00	*					74.00		Vertica l
14622.00	*					74.00		Vertical
17059.00	*					74.00		Vertica l
4874.00	40.84	31.85	8.67	32.12	49.24	74.00	-24.76	Horizontal
7311.00	34.07	36.37	11.72	31.89	50.27	74.00	-23.73	Horizontal
9748.00	34.10	38.35	14.25	31.62	55.08	74.00	-18.92	Horizontal
12185.00	*		20	1		74.00		Horizontal
14622.00	*					74.00		Horizontal
17059.00	*					74.00		Horizontal

Average value:

Average val	ue:							9
Frequency (MHz)	Read Leve l (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4874.00	31.31	31.85	8.67	32.12	39.71	54.00	- 14.29	Vertical
7311.00	23.47	36.37	11.72	31.89	39.67	54.00	-14.33	Vertical
9748.00	24.05	38.35	14.25	31.62	45.03	54.00	-8.97	Vertical
12185.00	*					54.00		Vertica l
14622.00	*					54.00		Vertical
17059.00	*					54.00		Vertica l
4874.00	30.94	31.85	8.67	32.12	39.34	54.00	-14.66	Horizontal
7311.00	23.15	36.37	11.72	31.89	39.35	54.00	-14.65	Horizontal
9748.00	23.81	38.35	14.25	31.62	44.79	54.00	-9.21	Horizontal
12185.00	*			2		54.00	0	Horizontal
14622.00	*					54.00		Horizontal
17059.00	*					54.00		Horizontal

Remark:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. "*", means this data is the too weak instrument of signal is unable to test.

802.11b(Worst)-High

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4924.00	42.08	31.90	8.70	32.15	50.53	74.00	-23.47	Vertical
7386.00	33.20	36.49	11.76	31.83	49.62	74.00	-24.38	Vertical
9848.00	35.76	38.62	14.31	31.77	56.92	74.00	-17.08	Vertical
12310.00	*					74.00	3	Vertical
14772.00	*					74.00		Vertical
17234.00	*					74.00		Vertical
4924.00	41.82	31.90	8.70	32.15	50.27	74.00	-23.73	Horizontal
7386.00	32.32	36.49	11.76	31.83	48.74	74.00	- 25.26	Horizontal
9848.00	32.03	38.62	14.31	31.77	53.19	74.00	-20.81	Horizontal
12310.00	*					74.00		Horizontal
14772.00	*					74.00		Horizonta
17234.00	*					74.00	8	Horizontal

Average value:

Frequency (MHz)	Read Leve l (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4924.00	33.22	31.90	8.70	32.15	41.67	54.00	-12.33	Vertical
7386.00	23.17	36.49	11.76	31.83	39.59	54.00	-14.41	Vertical
9848.00	24.32	38.62	14.31	31.77	45.48	54.00	- 8.52	Vertica l
12310.00	*			8		54.00		Vertica l
14772.00	*	5			5)	54.00		Vertical
17234.00	*					54.00		Vertica l
4924.00	32.33	31.90	8.70	32.15	40.78	54.00	-13.22	Horizontal
7386.00	21.76	36.49	11.76	31.83	38.18	54.00	- 15.82	Horizontal
9848.00	21.33	38.62	14.31	31.77	42.49	54.00	-11.51	Horizontal
12310.00	*	2)			25	54.00		Horizontal
14772.00	*	3				54.00		Horizontal
17234.00	*				2	54.00		Horizontal

Notes:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. "*", means this data is the too weak instrument of signal is unable to test.
- 1. Notes: emissions are attenuated 20dB below the limits, so it does not record.

Remark:

- 1.Factor = Antenna Factor + Cable Loss Pre-amplifier.
- 2.Scan with 802.11b, 802.11g, 802.11n (HT-20), the worst case
- is 802.11b.Emission Level = Reading + FactorMargin = Limit Emission Leve
- 3. The frequency emission of peak points that did not show above the forms are at least 20dB below the limit, the frequency emission is mainly from the environment noise



802.11 b low CH

Peak value:

Frequency (MHz)	Read Leve l (dBuV)	Antenna Factor (dB/m)	Cab l e Loss (dB)	Preamp Factor (dB)	Leve l (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	52.82	27.59	5.38	34.01	51.78	74.00	-22.22	Horizontal
2400.00	61.64	27.58	5.39	34.01	60.60	74.00	-13.40	Horizontal
2390.00	54.66	27.59	5.38	34.01	53.62	74.00	- 20.38	Vertical
2400.00	63.65	27.58	5.39	34.01	62.61	74.00	-11.39	Vertica l

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cab l e Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	39.49	27.59	5.38	34.01	38.45	54.00	-15.55	Horizontal
2400.00	47.89	27.58	5.39	34.01	46.85	54.00	-7.15	Horizontal
2390.00	41.06	27.59	5.38	34.01	40.02	54.00	-13.98	Vertica l
2400.00	49.08	27.58	5.39	34.01	48.04	54.00	-5.96	Vertica l

802.11 b High CH

Peak value:

. oun raide								
Frequency (MHz)	Read Leve l (dBuV)	Antenna Factor (dB/m)	Cab l e Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	53.33	27.53	5.47	33.92	52.41	74.00	- 21.59	Horizontal
2500.00	49.35	27.55	5.49	29.93	52.46	74.00	- 21.54	Horizonta l
2483.50	55.68	27.53	5.47	33.92	54.76	74.00	-19.24	Vertical
2500.00	52.01	27.55	5.49	29.93	55.12	74.00	-18.88	Vertical

Average value:

Frequency (MHz)	Read Leve l (dBuV)	Antenna Factor (dB/m)	Cab l e Loss (dB)	Preamp Factor (dB)	Leve l (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	39.76	27.53	5.47	33.92	38.84	54.00	-15.16	Horizontal
2500.00	35.94	27.55	5.49	29.93	39.05	54.00	- 14.95	Horizontal
2483.50	41.97	27.53	5.47	33.92	41.05	54.00	- 12.95	Vertica l
2500.00	37.65	27.55	5.49	29.93	40.76	54.00	-13.24	Vertical





802.11 g Low CH

Peak value:

Frequency (MHz)	Read Leve l (dBuV)	Antenna Factor (dB/m)	Cab l e Loss (dB)	Preamp Factor (dB)	Leve l (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	51.14	27.59	5.38	34.01	50.10	74.00	- 23.90	Horizonta l
2400.00	60.02	27.58	5.39	34.01	58.98	74.00	-15.02	Horizonta l
2390.00	53.18	27.59	5.38	34.01	52.14	74.00	-21.86	Vertical
2400.00	61.97	27.58	5.39	34.01	60.93	74.00	-13.07	Vertica l

Average value:

Frequency (MHz)	Read Leve l (dBuV)	Antenna Factor (dB/m)	Cab l e Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	38.56	27.59	5.38	34.01	37.52	54.00	-16.48	Horizonta l
2400.00	47.08	27.58	5.39	34.01	46.04	54.00	- 7.96	Horizonta l
2390.00	40.10	27.59	5.38	34.01	39.06	54.00	-14.95	Vertical
2400.00	47.39	27.58	5.39	34.01	46.35	54.00	-7.65	Vertical

802.11 g High CH

Peak value:

Frequency (MHz)	Read Leve l (dBuV)	Antenna Factor (dB/m)	Cab l e Loss (dB)	Preamp Factor (dB)	Leve l (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	51.22	27.53	5.47	33.92	50.30	74.00	-23.70	Horizontal
2500.00	47.63	27.55	5.49	29.93	50.74	74.00	-23.26	Horizontal
2483.50	53.28	27.53	5.47	33.92	52.36	74.00	-21.64	Vertical
2500.00	50.02	27.55	5.49	29.93	53.13	74.00	-20.88	Vertical

Average value:

Frequency (MHz)	Read Leve l (dBuV)	Antenna Factor (dB/m)	Cab l e Loss (dB)	Preamp Factor (dB)	Leve l (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	38.42	27.53	5.47	33.92	37.50	54.00	-16.50	Horizontal
2500.00	34.83	27.55	5.49	29.93	37.94	54.00	-16.06	Horizontal
2483.50	40.46	27.53	5.47	33.92	39.54	54.00	-14.46	Vertical
2500.00	36.53	27.55	5.49	29.93	39.64	54.00	-14.36	Vertical



802.11 N 20 Low CH

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cab l e Loss (dB)	Preamp Factor (dB)	Leve l (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	51.06	27.59	5.38	34.01	50.02	74.00	-23.98	Horizontal
2400.00	59.92	27.58	5.39	34.01	58.88	74.00	-15.12	Horizontal
2390.00	53.10	27.59	5.38	34.01	52.06	74.00	-21.94	Vertica l
2400.00	61.84	27.58	5.39	34.01	60.80	74.00	-13.20	Vertical

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cab l e Loss (dB)	Preamp Factor (dB)	Leve l (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	38.50	27.59	5.38	34.01	37.46	54.00	-16.54	Horizontal
2400.00	47.01	27.58	5.39	34.01	45.97	54.00	-8.03	Horizontal
2390.00	40.04	27.59	5.38	34.01	39.00	54.00	-15.01	Vertical
2400.00	47.32	27.58	5.39	34.01	46.28	54.00	-7.72	Vertical

802.11 N 20 High CH Peak value:

Frequency (MHz)	Read Leve l (dBuV)	Antenna Factor (dB/m)	Cab l e Loss (dB)	Preamp Factor (dB)	Leve l (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	51.10	27.53	5.47	33.92	50.18	74.00	-23.82	Horizontal
2500.00	47.55	27.55	5.49	29.93	50.66	74.00	-23.34	Horizontal
2483.50	53.15	27.53	5.47	33.92	52.23	74.00	-21.77	Vertical
2500.00	49.92	27.55	5.49	29.93	53.03	74.00	-20.98	Vertical

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cab l e Loss (dB)	Preamp Factor (dB)	Leve l (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	38.35	27.53	5.47	33.92	37.43	54.00	-16.57	Horizontal
2500.00	34.78	27.55	5.49	29.93	37.89	54.00	-16.11	Horizontal
2483.50	40.38	27.53	5.47	33.92	39.46	54.00	-14.54	Vertical
2500.00	36.47	27.55	5.49	29.93	39.58	54.00	-14.42	Vertical

8 CONDUCTED EMISSION TEST

8.1.1 POWER LINE CONDUCTED EMISSION LIMITS

Operating frequency band. In case the emission fall within the restricted band specified on Part 207(a) limit in the table below has to be followed.

EDECLIENCY (MH-)	Conducted Emissionlimit (dBuV)				
FREQUENCY (MHz)	Quasi-peak	Average			
0.15 -0.5	66 - 56 *	56 - 46 *			
0.50 -5.0	56.00	46.00			
5.0 -30.0	60.00	50.00			

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

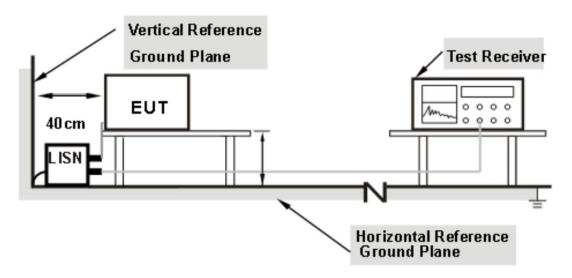
Receiver Parameters	Setting		
Attenuation	10 dB		
Start Frequency	0.15 MHz		
Stop Frequency	30 MHz		
IF Bandwidth	9 kHz		



8.1.2 TEST PROCEDURE

- a. The EUT was 0.8 meters from the horizontal ground plane and 0.4 meters from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

8.1.3 TEST SETUP



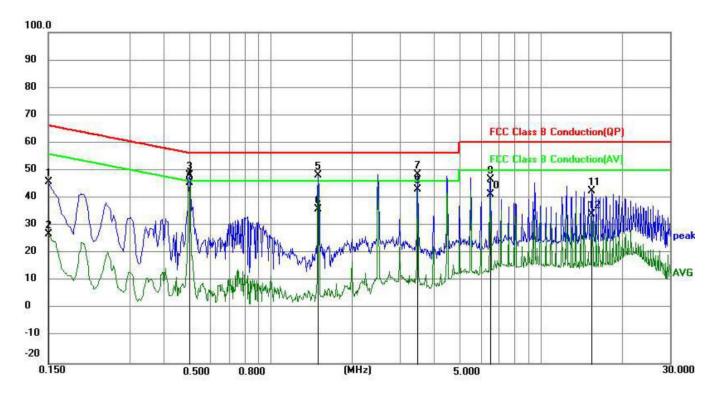
Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes



8.1.4 TEST RESULT

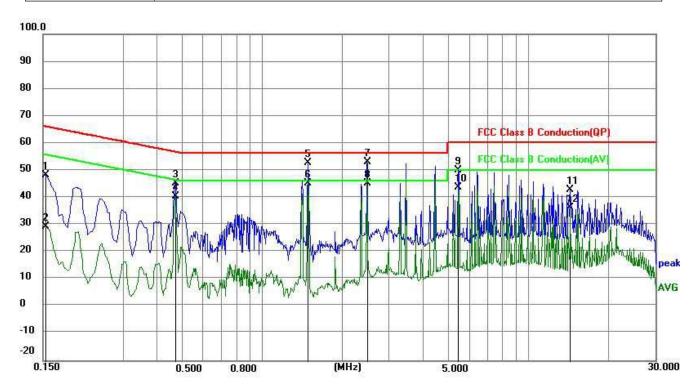
-	Temperature:	22.1 ℃	Relative Humidity:	56%
-	Test Voltage:	DC 12V	Phase:	L
-	Test Mode:	802.11b(worst)		



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1500	36.22	9.52	45.74	66.00	20.26	QP
2	0.1500	17.51	9.52	27.03	56.00	28.97	AVG
3	0.5010	38.58	9.56	48.14	56.00	7.86	QP
4	0.5010	35.90	9.56	45.46	46.00	0.54	AVG
5	1.5000	38.83	9.57	48.40	56.00	7.60	QP
6	1.5000	26.34	9.57	35.91	46.00	10.09	AVG
7	3.4980	38.85	9.58	48.43	56.00	7.57	QP
8	3.4980	33.67	9.58	43.25	46.00	2.75	AVG
9	6.5040	37.08	9.60	46.68	60.00	13.32	QP
10	6.5040	31.63	9.60	41.23	50.00	8.77	AVG
11	15.4545	32.88	9.71	42.59	60.00	17.41	QP
12	15.4545	24.52	9.71	34.23	50.00	15.77	AVG



Temperature:	22.1 ℃	Relative Humidity:	56%				
Test Voltage:	DC 12V	Phase:	N				
Test Mode:	802.11b(worst)						



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1532	38.78	9.51	48.29	65.82	17.53	QP
2	0.1532	19.85	9.51	29.36	55.82	26.46	AVG
3	0.4695	35.73	9.56	45.29	56.52	11.23	QP
4	0.4695	30.82	9.56	40.38	46.52	6.14	AVG
5	1.4865	43.12	9.57	52.69	56.00	3.31	QP
6	1.4865	35.73	9.57	45.30	46.00	0.70	AVG
7	2.4810	43.34	9.59	52.93	56.00	3.07	QP
8	2.4810	35.61	9.59	45.20	46.00	0.80	AVG
9	5.4689	40.52	9.67	50.19	60.00	9.81	QP
10	5.4689	34.06	9.67	43.73	50.00	6.27	AVG
11	14.4060	33.04	9.79	42.83	60.00	17.17	QP
12	14.4060	26.52	9.79	36.31	50.00	13.69	AVG



9. ANTENNA REQUIREMENT

9.1 STANDARD REQUIREMENT

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

9.2 RESULT

The antennas used for this product are Internal antenna and other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is 0dBi.

*****END OF THE REPORT***