FCC TEST REPORT

According to

FCC Rules and Regulations Part 15 Subpart C

Applicant : Amped Wireless

Address : 13089 Peyton Dr. #C307, Chino Hills CA 91709

Equipment : High Power Wireless-N 600mW Gigabit Dual

Band Access Point

Model No. : AP20000G

Trade Name: Amped Wireless

FCC ID : ZTT-AP20000G

- The test result refers exclusively to the test presented test model / sample.,
- Without written approval of **Cerpass Technology Corp.**, the test report shall not be reproduced except in full.
- The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

Cerpass Technology Corp.

Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 1 of 224

Contents

Report No.: TEFI1206135-A

Issued date :

Page No.

FCC ID

Aug. 22, 2012

: ZTT-AP20000G

2 of 224

1.	Repo	ort of Measurements and Examinations	6
	1.1	List of Measurements and Examinations	6
2.	Test	Configuration of Equipment under Test	7
	2.1	Feature of Equipment under Test	7
	2.2	Carrier Frequency of Channels	8
	2.3	Test Mode and Test Software	9
	2.4	Description of Test System	10
	2.5	General Information of Test	11
	2.6	Measurement Uncertainty	11
3.	Ante	nna Requirements	12
	3.1	Standard Applicable	12
	3.2	Antenna Construction and Directional Gain	
4.	Test	of Conducted Emission	13
	4.1	Test Limit	
	4.2	Test Procedures	
	4.3	Typical Test Setup	
	4.4	Measurement Equipment	
	4.5	Test Result and Data	15
	4.6	Test Photographs	
5.	Test	of Radiated Emission	28
	5.1	Test Limit	
	5.2	Test Procedures	
	5.3	Typical Test Setup	
	5.4	Measurement Equipment	
	5.5	Test Result and Data (9kHz ~ 30MHz)	
	5.6	Test Result and Data (30MHz ~ 25GHz)	
	5.7	Test Photographs (30MHz~1000MHz)	
	5.8	Test Photographs (1000MHz~40000MHz)	
6.	6dB	Bandwidth Measurement Data	
	6.1	Test Limit	
	6.2	Test Procedures	
	6.3	Test Setup Layout	98
	6.4	Measurement Equipment	
	6.5	Test Result and Data	
7.	Maxi	mum Peak and Average Output Power	
	7.1	Test Limit	
	7.2	Test Procedures	
	7.3	Test Setup Layout	
	7.4	Measurement Equipment	
	7.5	Test Result and Data	
8.		er Spectral Density	
	8.1	Test Limit	
	8.2	Test Procedures	166



CERPASS TECHNOLOGY CORP.

	8.3	Test Setup Layout	166
	8.4	Measurement Equipment	
	8.5	Test Result and Data	167
9.	Band	l Edges Measurement	191
	9.1	Test Limit	191
	9.2	Test Procedure	191
	9.3	Test Setup Layout	191
	9.4	Measurement Equipment	191
	9.5	Test Result and Data	192
	9.6	Restrict Band Emission Measurement Data	222
10.	Rest	ricted Bands of Operation	224
	10.1	Labeling Requirement	224
Apr	endix	A Photographs of FUT	Δ1 ~ Δ7

Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 3 of 224

History of this test report

■ ORIGINAL.

☐ Additional attachment as following record:

Attachment No.	Issue Date	Description

Cerpass Technology Corp.

Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 4 of 224

CERTIFICATE OF COMPLIANCE

According to

FCC Rules and Regulations

Part 15 Subpart C

Applicant : Amped Wireless

Address: 13089 Peyton Dr. #C307, Chino Hills CA 91709

Equipment : High Power Wireless-N 600mW Gigabit Dual

Band Access Point

Model No. : AP20000G

FCC ID : ZTT-AP20000G

I HEREBY CERTIFY THAT:

The measurements shown in this test report were made in accordance with the procedures given in ANSI C63.4 2009, KDB558074 & KDB662911. The equipment was *passed* the test performed according to FCC Rules and Regulations Part 15 Subpart C (2010).

The test was carried out on Jun. 22, 2012 at Cerpass Technology Corp.

Approved by: Tested by:

Hill Chen

EMC/RF B.U. Assistant Manager

Ben Lu

Engineer

Cerpass Technology Corp.Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 5 of 224

1. Report of Measurements and Examinations

1.1 List of Measurements and Examinations

FCC Rule	. Description of Test	Result
15.203	. Antenna Requirement	Pass
15.207	. Conducted Emission	Pass
15.209 15.247(d)	. Radiated Emission	Pass
15.247(a)(2)	. 6dB Bandwidth	Pass
15.247(b)	. Maximum Peak Output Power	Pass
15.247(d)	. 100kHz Bandwidth of Frequency Band Edges	Pass
15.247(e)	. Power Spectral Density	Pass
1.1307 1.1310 2.1091 2.1093	. RF Exposure Compliance	Pass

Cerpass Technology Corp.

Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 6 of 224

2. Test Configuration of Equipment under Test

2.1 Feature of Equipment under Test

Wireless Standard: 802.11a/b/g/nFrequency Band: 2.4GHz, 5.0GHz

■ Wireless Speed: 2.4GHz: 300Mbps (Tx/Rx)

5.0GHz: 300Mbps (Tx/Rx)

Amplifier: Dual 2.4GHz 600mW Amplifiers

Dual 5.0GHz Amplifiers
Dual Low Noise Amplifier

■ Wireless Sensitivity: -94dBm

■ Wireless Output Power: Up to 29dBm

Wireless Security: WEP, WPA, WPA2, WPA Mixed, WPS

■ Processor Clock Speed: 620MHz

■ Wireless Coverage Control: 15% - 100% Output Power

Data Rate:

2.4GHz: 802.11b: 11Mbps, 802.11g: 54Mbps, 802.11n HT20: 130Mbps, 802.11n HT40: 270Mbps

5.0GHz: 802.11a: 54Mbps, 802.11an HT20: 130Mbps, 802.11an HT40: 270Mbps

Antenna:

-2 x Detachable High Gain

Dual Band 2dBi (for 2.4GHz), 4dBi (for 5GHz) Antennas

-2 x Reverse SMA Connector

■ Ports:

-4 x RJ45 10/100/1000 LAN ports

-1 x RJ45 10/100/1000 WAN ports

-USB 2.0 Port for Storage Devices

Mounting: Wall, Stand or Desktop

Warranty: 1 Year

Cerpass Technology Corp.Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 7 of 224

CERPASS TECHNOLOGY CORP.

2.2 Carrier Frequency of Channels

802.11b, 802.11g, 802.11n HT 20 (2412MHz~2462MHz)

Channel	Frequency(MHz)	Channel	Frequency(MHz)
01	2412	07	2442
02	2417	08	2447
03	2422	09	2452
04	2427	10	2457
05	2432	11	2462
06	2437		

802.11n, HT 40 (2422MHz~2452MHz)

Channel	Frequency(MHz)	Channel	Frequency(MHz)
03	2422	07	2442
04	2427	08	2447
05	2432	09	2452
06	2437		

802.11a, 802.11an HT 20 (5725MHz~5850MHz)

Channel	Frequency(MHz)	Channel	Frequency(MHz)
149	5745	161	5805
153	5765	165	5825
157	5785		

802.11an HT 40 (5755MHz~5795MHz)

Chan	nel	Frequency(MHz)	Channel	Frequency(MHz)
15	1	5755	159	5795
15	5	5775		

Cerpass Technology Corp.

Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 8 of 224

2.3 Test Mode and Test Software

- a. During testing, the interface cables and equipment positions were varied according to ANSI C63.4.
- b. The complete test system included Notebook, Mouse and EUT for RF test.
- c. An executive "MD TOOL" under XP was executed to keep transmitting and receiving data via Wireless.
- d. The following test modes were performed for test:
 - 802.11b/g/n HT20: CH01: 2412MHz, CH06: 2437MHz, CH11: 2462MHz
 - 802.11n HT40: CH03: 2422MHz, CH06: 2437MHz, CH09: 2452MHz
 - 802.11a/ an HT20: CH149: 5745MHz, CH157: 5785MHz, CH165: 5825MHz
 - 802.11an HT40: CH151: 5755MHz, CH155: 5775MHz, CH159: 5795MHz
 - * Power output of data rate:

802.1	802.11b		802.11g		802.11n HT20		802.11n HT40	
Data Rate (Mbps)	Power output (dBm)	Data Rate (Mbps)	Power output (dBm)	Data Rate (Mbps)	Power output (dBm)	Data Rate (Mbps)	Power output (dBm)	
11	20.40	54	21.85	130/15	21.72	270/15	21.54	
5.5	20.36	48	21.80	117/14	21.67	243/14	21.48	
2	20.35	36	21.77	104/13	21.66	216/13	21.46	
1	20.38	24	21.79	78/12	21.63	162/12	21.43	
		18	21.80	52/11	21.65	108/11	21.43	
		12	21.83	39/10	21.69	81/10	21.49	
		9	21.80	26/9	21.67	54/9	21.49	
		6	21.83	13/8	21.66	27/8	21.45	
				65/7	21.65	135/7	21.46	
				58.5/6	21.67	121.5/6	21.49	
				52/5	21.66	108/5	21.45	
				39/4	21.67	81/4	21.45	
				26/3	21.70	54/3	21.46	
				19.5/2	21.69	40.5/2	21.48	
				13/1	21.68	27/1	21.50	
				6.5/0	21.70	13.5/0	21.51	

Cerpass Technology Corp.

Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 9 of 224



802	 .11a	802 11a	ın HT20	802.11an HT40		
Data Rate (Mbps)	Power output (dBm)	Data Rate (Mbps)	Power output (dBm)	Data Rate (Mbps)	Power output (dBm)	
54	23.87	130/15	23.70	270/15	23.65	
48	23.83	117/14	23.63	243/14	23.60	
36	23.85	104/13	23.60	216/13	23.63	
24	23.85	78/12	23.63	162/12	23.63	
18	23.82	52/11	23.59	108/11	23.61	
12	23.81	39/10	23.58	81/10	23.59	
9	23.85	26/9	23.60	54/9	23.60	
6	23.85	13/8	23.57	27/8	23.59	
		65/7	23.55	135/7	23.57	
		58.5/6	23.60	121.5/6	23.56	
		52/5	23.57	108/5	23.60	
		39/4	23.54	81/4	23.62	
		26/3	23.59	54/3	23.61	
		19.5/2	23.58	40.5/2	23.62	
		13/1	23.61	27/1	23.62	
		6.5/0	23.65	13.5/0	23.62	

2.4 Description of Test System

Device	Manufacturer	Model No.	Description
Notebook	ASUS	A8J	Power Cable, Unshielding 1.8m
Mouse	Logitech	OF-2854	USB Cable, Shielding 1.85m

Cerpass Technology Corp.

Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012
Page No. : 10 of 224

Report No.: TEFI1206135-A



2.5 General Information of Test

Test Site :	Cerpass Technology Corp. 2F-11, No. 3, Yuan Qu St., (Nankang Software Park), Taipei, Taiwan 115, R.O.C.
Test Site Location (OATS2-SD) :	No.68-1, Shihbachongsi, Shihding Township, Taipei City 223, Taiwan, R.O.C.
FCC Registration Number :	TW1049, TW1061, 488071, 390316
IC Registration Number :	4934B-1, 4934D-1
VCCI Registration Number :	T-1173 for Telecommunication Test C-4139 for Conducted emission test R-3428 for Radiated emission test G-97 for radiated disturbance above 1GHz
Frequency Range Investigated:	Conducted: from 150kHz to 30MHz Radiation: from 30MHz to 40,000MHz
Test Distance:	The test distance of radiated emission from antenna to EUT is 3 M.
Laboratory Accreditation	Testing Laboratory 1439

2.6 Measurement Uncertainty

Measurement Item	Uncertainty
Radiated emission	±4.11dB
Peak Output Power(conducted)	±1.38dB
Peak Output Power(Radiated)	±1.70dB
Power Spectral Density	±1.39dB
Radiated emission(3m)	±4.11dB
Radiated emission(10m)	±3.89dB

Cerpass Technology Corp.

Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 11 of 224



3. Antenna Requirements

3.1 Standard Applicable

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.

3.2 Antenna Construction and Directional Gain

802.11b/g/n:

ANT R, ANT L

Antenna Type: Dipole Antenna

Antenna Gain: 2 dBi

Note: Directional gain = GANT+10 log(N) dBi=2+10log(2)=5.01(dBi)

802.11a, an:

ANT R, ANT L

Antenna Type: Dipole Antenna

Antenna Gain: 4 dBi

Note: Directional gain = GANT+10 log(N) dBi=4+10log(2)=7.01(dBi)

Cerpass Technology Corp.

Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 12 of 224



4. Test of Conducted Emission

4.1 Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz on the 120 VAC power and return leads of the EUT according to the methods defined in ANSI C63.4-2009 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 2.2. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

Frequency (MHz)	Quasi Peak (dB µ V)	Average (dB μ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

^{*}Decreases with the logarithm of the frequency.

4.2 Test Procedures

- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- c. All the support units are connecting to the other LISN.
- d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- e. The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
- f. Both sides of AC line were checked for maximum conducted interference.
- g. The frequency range from 150 kHz to 30 MHz was searched.
- h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Cerpass Technology Corp.

Tel:886-2-2655-8100 Fax:886-2-2655-8200

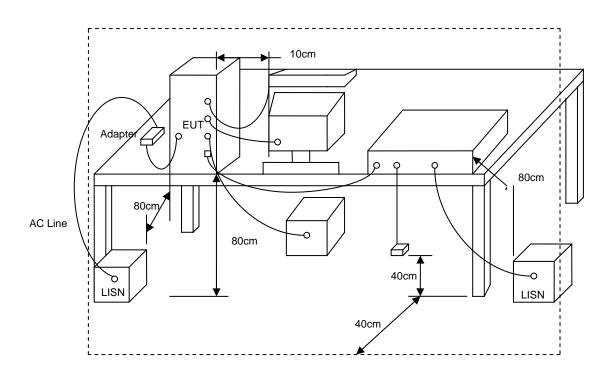
Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 13 of 224



4.3 Typical Test Setup



4.4 Measurement Equipment

Instrument	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date
EMI Receiver	R&S	ESCI	100443	2012/01/12	2013/01/11
LISN	Schwarzbeck	NSLK 8127	8127-516	2012/03/08	2013/03/07
LISN	Schwarzbeck	NSLK 8127	8127-568	2011/08/24	2012/08/23

Cerpass Technology Corp.

Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012 : 14 of 224

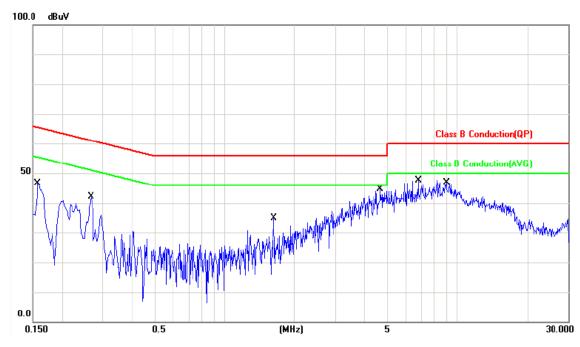
Page No.

Report No.: TEFI1206135-A



4.5 Test Result and Data

Power	:	From System	Pol/Phase :	:	LINE
Test Mode 1	:	802.11g, CH1	Temperature :	:	24 °C
Test Date	:	Jun. 22, 2012	Humidity :	:	58 %



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1580	0.08	40.68	40.76	65.56	-24.80	QP	Р
2	0.1580	0.08	23.65	23.73	55.56	-31.83	AVG	Р
3	0.2660	0.09	42.71	42.80	61.24	-18.44	QP	Р
4	0.2660	0.09	34.77	34.86	51.24	-16.38	AVG	Р
5	1.6340	0.20	23.45	23.65	56.00	-32.35	QP	Р
6	1.6340	0.20	14.46	14.66	46.00	-31.34	AVG	Р
7	4.6900	0.30	38.35	38.65	56.00	-17.35	QP	Р
8	4.6900	0.30	26.64	26.94	46.00	-19.06	AVG	Р
9	6.8100	0.36	38.19	38.55	60.00	-21.45	QP	Р
10	6.8100	0.36	29.77	30.13	50.00	-19.87	AVG	Р
11	8.9940	0.41	40.23	40.64	60.00	-19.36	QP	Р
12	8.9940	0.41	32.77	33.18	50.00	-16.82	AVG	Р

Note: Level = Reading + Factor Margin = Level - Limit

Cerpass Technology Corp.

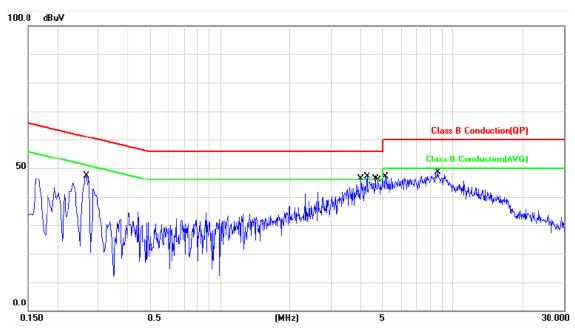
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012
Page No. : 15 of 224

Report No.: TEFI1206135-A



Power :	From System	Pol/Phase :	NEUTRAL
Test Mode 1 :	802.11g, CH1	Temperature :	24 °C
Test Date :	Jun. 22, 2012	Humidity :	58 %



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.2660	0.11	45.67	45.78	61.24	-15.46	QP	Р
2	0.2660	0.11	41.03	41.14	51.24	-10.10	AVG	Р
3	4.0460	0.29	39.07	39.36	56.00	-16.64	QP	Р
4	4.0460	0.29	28.98	29.27	46.00	-16.73	AVG	Р
5	4.2780	0.30	39.65	39.95	56.00	-16.05	QP	Р
6	4.2780	0.30	29.47	29.77	46.00	-16.23	AVG	Р
7	4.6540	0.31	40.58	40.89	56.00	-15.11	QP	Р
8	4.6540	0.31	30.02	30.33	46.00	-15.67	AVG	Р
9	4.7900	0.32	40.02	40.34	56.00	-15.66	QP	Р
10	4.7900	0.32	30.24	30.56	46.00	-15.44	AVG	Р
11	5.1380	0.33	39.67	40.00	60.00	-20.00	QP	Р
12	5.1380	0.33	29.84	30.17	50.00	-19.83	AVG	Р
13	8.6420	0.41	41.79	42.20	60.00	-17.80	QP	Р
14	8.6420	0.41	34.24	34.65	50.00	-15.35	AVG	Р

Cerpass Technology Corp.

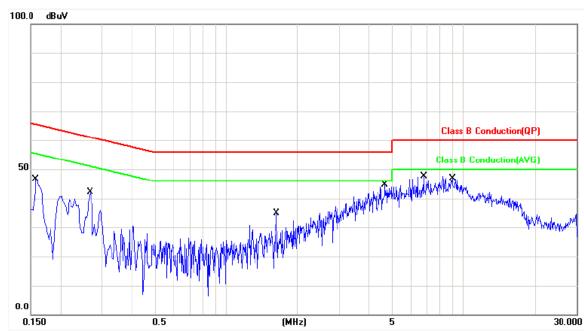
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 16 of 224
FCC ID : ZTT-AP20000G

Power	:	From System	Pol/Phase :	LINE
Test Mode 2	:	802.11n HT20, CH1	Temperature :	24 °C
Test Date		lun 22 2012	Humidity :	58 %



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1580	0.05	40.65	40.70	65.56	-24.86	QP	Р
2	0.1580	0.05	23.58	23.63	55.56	-31.93	AVG	Р
3	0.2660	0.05	42.66	42.71	61.24	-18.53	QP	Р
4	0.2660	0.05	34.73	34.78	51.24	-16.46	AVG	Р
5	1.6340	0.07	23.68	23.75	56.00	-32.25	QP	Р
6	1.6340	0.07	14.38	14.45	46.00	-31.55	AVG	Р
7	4.6900	0.10	38.32	38.42	56.00	-17.58	QP	Р
8	4.6900	0.10	26.56	26.66	46.00	-19.34	AVG	Р
9	6.8100	0.13	38.35	38.48	60.00	-21.52	QP	Р
10	6.8100	0.13	30.20	30.33	50.00	-19.67	AVG	Р
11	8.9940	0.16	40.63	40.79	60.00	-19.21	QP	Р
12	8.9940	0.16	33.69	33.85	50.00	-16.15	AVG	Р

Cerpass Technology Corp.

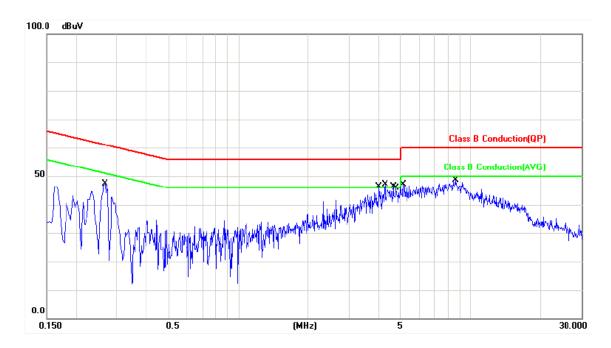
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012 Page No. : 17 of 224

Report No.: TEFI1206135-A



Power :	From System	Pol/Phase :	NEUTRAL
Test Mode 2 :	802.11n HT20, CH1	Temperature :	24 °C
Test Date :	Jun. 22, 2012	Humidity :	58 %



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.2660	0.07	45.39	45.46	61.24	-15.78	QP	Р
2	0.2660	0.07	41.91	41.98	51.24	-9.26	AVG	Р
3	4.0460	0.10	39.68	39.78	56.00	-16.22	QP	Р
4	4.0460	0.10	29.23	29.33	46.00	-16.67	AVG	Р
5	4.2780	0.10	39.37	39.47	56.00	-16.53	QP	Р
6	4.2780	0.10	29.56	29.66	46.00	-16.34	AVG	Р
7	4.6540	0.11	40.43	40.54	56.00	-15.46	QP	Р
8	4.6540	0.11	30.52	30.63	46.00	-15.37	AVG	Р
9	4.7900	0.11	40.73	40.84	56.00	-15.16	QP	Р
10	4.7900	0.11	30.68	30.79	46.00	-15.21	AVG	Р
11	5.1380	0.12	40.54	40.66	60.00	-19.34	QP	Р
12	5.1380	0.12	30.35	30.47	50.00	-19.53	AVG	Р
13	8.6420	0.16	42.53	42.69	60.00	-17.31	QP	Р
14	8.6420	0.16	34.30	34.46	50.00	-15.54	AVG	Р

Cerpass Technology Corp.

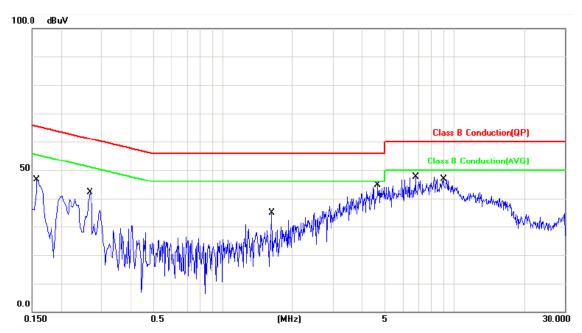
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 18 of 224
FCC ID : ZTT-AP20000G

Power :	From System	Pol/Phase :	LINE
Test Mode 3 :	802.11n HT40, CH3	Temperature :	24 °C
Test Date :	Jun. 22, 2012	Humidity :	58 %



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1580	0.05	40.60	40.65	65.56	-24.91	QP	Р
2	0.1580	0.05	23.51	23.56	55.56	-32.00	AVG	Р
3	0.2660	0.05	42.61	42.66	61.24	-18.58	QP	Р
4	0.2660	0.05	34.42	34.47	51.24	-16.77	AVG	Р
5	1.6340	0.07	23.34	23.41	56.00	-32.59	QP	Р
6	1.6340	0.07	14.21	14.28	46.00	-31.72	AVG	Р
7	4.6900	0.10	38.68	38.78	56.00	-17.22	QP	Р
8	4.6900	0.10	26.87	26.97	46.00	-19.03	AVG	Р
9	6.8100	0.13	38.35	38.48	60.00	-21.52	QP	Р
10	6.8100	0.13	30.50	30.63	50.00	-19.37	AVG	Р
11	8.9940	0.16	40.55	40.71	60.00	-19.29	QP	Р
12	8.9940	0.16	33.35	33.51	50.00	-16.49	AVG	Р

Margin = Level - Limit

Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

: 19 of 224

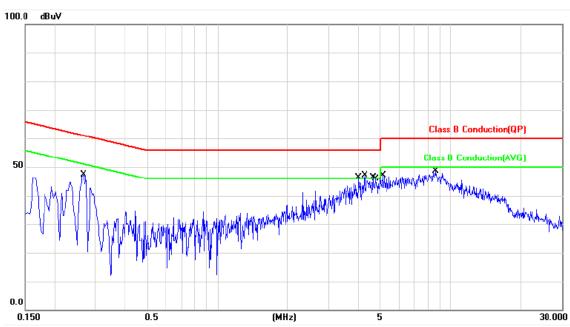
Report No.: TEFI1206135-A

FCC ID : ZTT-AP20000G

Page No.



Power :	From System	Pol/Phase :	NEUTRAL
Test Mode 3 :	802.11n HT40, CH3	Temperature :	24 °C
Test Date :	Jun. 22, 2012	Humidity :	58 %



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.2660	0.07	45.19	45.26	61.24	-15.98	QP	Р
2	0.2660	0.07	41.58	41.65	51.24	-9.59	AVG	Р
3	4.0460	0.10	39.06	39.16	56.00	-16.84	QP	Р
4	4.0460	0.10	29.78	29.88	46.00	-16.12	AVG	Р
5	4.2780	0.10	39.38	39.48	56.00	-16.52	QP	Р
6	4.2780	0.10	29.52	29.62	46.00	-16.38	AVG	Р
7	4.6540	0.11	40.67	40.78	56.00	-15.22	QP	Р
8	4.6540	0.11	30.55	30.66	46.00	-15.34	AVG	Р
9	4.7900	0.11	40.18	40.29	56.00	-15.71	QP	Р
10	4.7900	0.11	30.33	30.44	46.00	-15.56	AVG	Р
11	5.1380	0.12	39.99	40.11	60.00	-19.89	QP	Р
12	5.1380	0.12	30.46	30.58	50.00	-19.42	AVG	Р
13	8.6420	0.16	42.52	42.68	60.00	-17.32	QP	Р
14	8.6420	0.16	33.95	34.11	50.00	-15.89	AVG	Р

Cerpass Technology Corp.

Tel:886-2-2655-8100 Fax:886-2-2655-8200

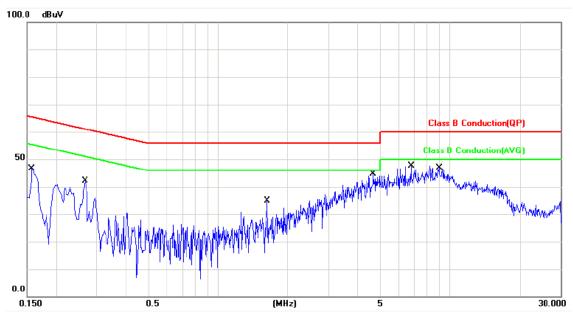
Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 20 of 224

FCC ID : ZTT-AP20000G

Power :	From System	Pol/Phase :	LINE
Test Mode 4 :	802.11a, CH149	Temperature :	24 °C
Test Date :	Jun. 22, 2012	Humidity :	58 %



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1580	0.05	40.65	40.70	65.56	-24.86	QP	Р
2	0.1580	0.05	23.57	23.62	55.56	-31.94	AVG	Р
3	0.2660	0.05	42.74	42.79	61.24	-18.45	QP	Р
4	0.2660	0.05	34.42	34.47	51.24	-16.77	AVG	Р
5	1.6340	0.07	23.23	23.30	56.00	-32.70	QP	Р
6	1.6340	0.07	14.70	14.77	46.00	-31.23	AVG	Р
7	4.6900	0.10	38.07	38.17	56.00	-17.83	QP	Р
8	4.6900	0.10	26.77	26.87	46.00	-19.13	AVG	Р
9	6.8100	0.13	38.49	38.62	60.00	-21.38	QP	Р
10	6.8100	0.13	30.70	30.83	50.00	-19.17	AVG	Р
11	8.9940	0.16	40.09	40.25	60.00	-19.75	QP	Р
12	8.9940	0.16	33.63	33.79	50.00	-16.21	AVG	Р

Cerpass Technology Corp.

Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

: 21 of 224

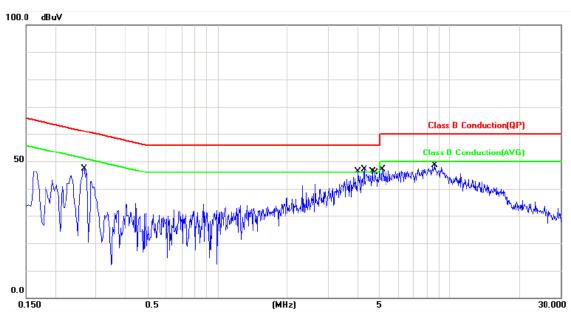
Report No.: TEFI1206135-A

FCC ID : ZTT-AP20000G

Page No.



Power :	From System	Pol/Phase :	NEUTRAL
Test Mode 4 :	802.11a, CH149	Temperature :	24 °C
Test Date :	Jun. 22, 2012	Humidity :	58 %



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.2660	0.07	45.50	45.57	61.24	-15.67	QP	Р
2	0.2660	0.07	41.26	41.33	51.24	-9.91	AVG	Р
3	4.0460	0.10	39.37	39.47	56.00	-16.53	QP	Р
4	4.0460	0.10	29.32	29.42	46.00	-16.58	AVG	Р
5	4.2780	0.10	39.78	39.88	56.00	-16.12	QP	Р
6	4.2780	0.10	29.22	29.32	46.00	-16.68	AVG	Р
7	4.6540	0.11	40.37	40.48	56.00	-15.52	QP	Р
8	4.6540	0.11	30.24	30.35	46.00	-15.65	AVG	Р
9	4.7900	0.11	40.30	40.41	56.00	-15.59	QP	Р
10	4.7900	0.11	30.25	30.36	46.00	-15.64	AVG	Р
11	5.1380	0.12	39.99	40.11	60.00	-19.89	QP	Р
12	5.1380	0.12	30.06	30.18	50.00	-19.82	AVG	Р
13	8.6420	0.16	42.35	42.51	60.00	-17.49	QP	Р
14	8.6420	0.16	34.46	34.62	50.00	-15.38	AVG	Р

Cerpass Technology Corp.

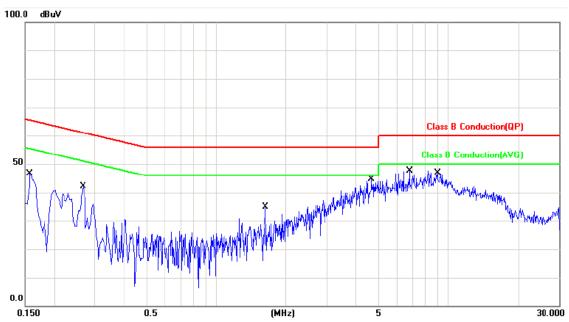
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 22 of 224
FCC ID : ZTT-AP20000G

Power :	From System	Pol/Phase :	LINE
Test Mode 5 :	802.11an HT20, CH149	Temperature :	24 °C
Test Date :	Jun. 22, 2012	Humidity :	58 %



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1580	0.05	40.71	40.76	65.56	-24.80	QP	Р
2	0.1580	0.05	23.21	23.26	55.56	-32.30	AVG	Р
3	0.2660	0.05	42.37	42.42	61.24	-18.82	QP	Р
4	0.2660	0.05	34.31	34.36	51.24	-16.88	AVG	Р
5	1.6340	0.07	23.41	23.48	56.00	-32.52	QP	Р
6	1.6340	0.07	14.52	14.59	46.00	-31.41	AVG	Р
7	4.6900	0.10	38.56	38.66	56.00	-17.34	QP	Р
8	4.6900	0.10	26.67	26.77	46.00	-19.23	AVG	Р
9	6.8100	0.13	37.99	38.12	60.00	-21.88	QP	Р
10	6.8100	0.13	30.02	30.15	50.00	-19.85	AVG	Р
11	8.9940	0.16	40.53	40.69	60.00	-19.31	QP	Р
12	8.9940	0.16	33.08	33.24	50.00	-16.76	AVG	Р

Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

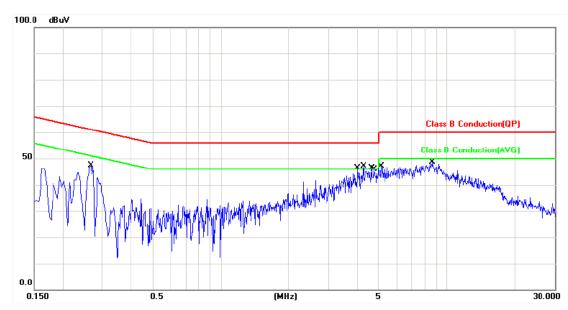
Page No.

Report No.: TEFI1206135-A

FCC ID : ZTT-AP20000G

: 23 of 224

Power	:	From System	Pol/Phase :	NEUTRAL
Test Mode 5	:	802.11an HT20, CH149	Temperature :	24 °C
Test Date	:	Jun. 22, 2012	Humidity :	58 %



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.2660	0.07	45.50	45.57	61.24	-15.67	QP	Р
2	0.2660	0.07	41.05	41.12	51.24	-10.12	AVG	Р
3	4.0460	0.10	39.18	39.28	56.00	-16.72	QP	Р
4	4.0460	0.10	29.23	29.33	46.00	-16.67	AVG	Р
5	4.2780	0.10	39.32	39.42	56.00	-16.58	QP	Р
6	4.2780	0.10	29.70	29.80	46.00	-16.20	AVG	Р
7	4.6540	0.11	40.22	40.33	56.00	-15.67	QP	Р
8	4.6540	0.11	30.28	30.39	46.00	-15.61	AVG	Р
9	4.7900	0.11	40.40	40.51	56.00	-15.49	QP	Р
10	4.7900	0.11	30.32	30.43	46.00	-15.57	AVG	Р
11	5.1380	0.12	39.94	40.06	60.00	-19.94	QP	Р
12	5.1380	0.12	29.98	30.10	50.00	-19.90	AVG	Р
13	8.6420	0.16	42.13	42.29	60.00	-17.71	QP	Р
14	8.6420	0.16	34.64	34.80	50.00	-15.20	AVG	Р

Margin = Level - Limit

Cerpass Technology Corp.

Tel:886-2-2655-8100 Fax:886-2-2655-8200

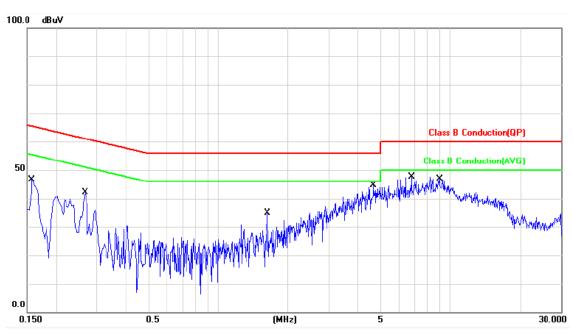
Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 24 of 224



Power :	From System	Pol/Phase :	LINE
Test Mode 6 :	802.11an HT40, CH151	Temperature :	24 °C
Test Date :	Jun. 22, 2012	Humidity :	58 %



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1580	0.05	40.28	40.33	65.56	-25.23	QP	Р
2	0.1580	0.05	23.70	23.75	55.56	-31.81	AVG	Р
3	0.2660	0.05	42.84	42.89	61.24	-18.35	QP	Р
4	0.2660	0.05	34.79	34.84	51.24	-16.40	AVG	Р
5	1.6340	0.07	23.26	23.33	56.00	-32.67	QP	Р
6	1.6340	0.07	14.46	14.53	46.00	-31.47	AVG	Р
7	4.6900	0.10	38.59	38.69	56.00	-17.31	QP	Р
8	4.6900	0.10	26.73	26.83	46.00	-19.17	AVG	Р
9	6.8100	0.13	38.31	38.44	60.00	-21.56	QP	Р
10	6.8100	0.13	30.15	30.28	50.00	-19.72	AVG	Р
11	8.9940	0.16	40.26	40.42	60.00	-19.58	QP	Р
12	8.9940	0.16	33.50	33.66	50.00	-16.34	AVG	Р

Margin = Level - Limit

Cerpass Technology Corp.

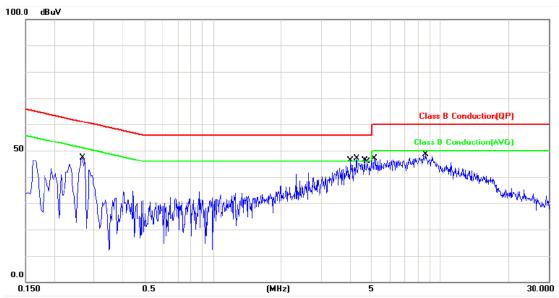
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 25 of 224

Power :	From System	Pol/Phase :	NEUTRAL
Test Mode 6	802.11an HT40, CH151	Temperature :	24 °C
Test Date :	Jun. 22, 2012	Humidity :	58 %



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.2660	0.07	45.56	45.63	61.24	-15.61	QP	Р
2	0.2660	0.07	41.12	41.19	51.24	-10.05	AVG	Р
3	4.0460	0.10	39.14	39.24	56.00	-16.76	QP	Р
4	4.0460	0.10	29.19	29.29	46.00	-16.71	AVG	Р
5	4.2780	0.10	39.58	39.68	56.00	-16.32	QP	Р
6	4.2780	0.10	29.73	29.83	46.00	-16.17	AVG	Р
7	4.6540	0.11	40.33	40.44	56.00	-15.56	QP	Р
8	4.6540	0.11	30.28	30.39	46.00	-15.61	AVG	Р
9	4.7900	0.11	40.25	40.36	56.00	-15.64	QP	Р
10	4.7900	0.11	30.46	30.57	46.00	-15.43	AVG	Р
11	5.1380	0.12	39.99	40.11	60.00	-19.89	QP	Р
12	5.1380	0.12	30.23	30.35	50.00	-19.65	AVG	Р
13	8.6420	0.16	41.98	42.14	60.00	-17.86	QP	Р
14	8.6420	0.16	34.39	34.55	50.00	-15.45	AVG	Р

Margin = Level - Limit

Cerpass Technology Corp.

Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 26 of 224



5. Test of Radiated Emission

5.1 Test Limit

In any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. If the transmitter measurement is based on the maximum conducted output power, the attenuation required under this paragraph shall be 30dB instead of 20dB. In addition, radiated emissions which fall in section 15.205(a) the restricted bands must also comply with the radiated emission limit specified in section 15.209(a).

Frequency (MHz)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

5.2 Test Procedures

- a. The EUT was placed on a rotatable table top 0.8 meter above ground.
- b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
- e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
- f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.
- h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- i. "Cone of radiation" has been considered to be 3dB bandwidth of the measurement antenna.

Cerpass Technology Corp.

Tel:886-2-2655-8100 Fax:886-2-2655-8200 Page No. : 28 of 224

FCC ID : ZTT-AP20000G

Aug. 22, 2012

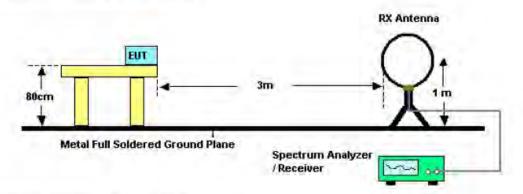
Issued date :

Report No.: TEFI1206135-A

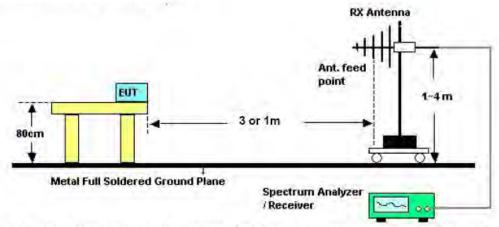


5.3 Typical Test Setup

For radiated emissions below 30MHz



For radiated emissions above 30MHz



Above 10 GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1m.

Distance extrapolation factor = 20 log (specific distance [3m] / test distance [1m]) (dB); Limit line = specific limits (dBuV) + distance extrapolation factor [9.54 dB].

5.4 Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
Bilog Antenna	Schaffner	CBL6112B	2840	2012/03/23	2013/03/22
Amplifier	Agilent	8447D	2944A10593	2012/03/21	2013/03/20
Signal Generator	HP	8648B	3629U00612	2012/01/11	2013/01/10
EMI Receiver	SCHAFFNER	SCR3501	437	2011/09/28	2012/09/27
Spectrum Analyzer	R&S	FSP 3	100800	2012/03/03	2013/03/02
Spectrum Analyzer	R&S	FSP40	100047	2012/03/01	2013/02/28
Horn Antenna	EMCO	3115	31589	2012/03/01	2013/02/28
Preamplifier	Agilent	8449B	3008A01954	2012/02/29	2013/02/28
Loop Antenna	EMCO	6507	40855	2012/02/29	2013/02/28

Cerpass Technology Corp.

Tel:886-2-2655-8100 Fax:886-2-2655-8200 Page No. : 29 of 224

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

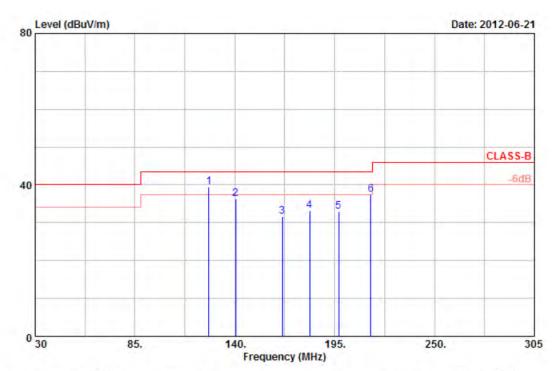


5.5 Test Result and Data (9kHz ~ 30MHz)

The 9kHz - 30MHz spurious emission is under limit 20dB more.

5.6 Test Result and Data (30MHz ~ 25GHz)

Power :	From System	Pol/Phase :	VERTICAL
Test Mode 1 :	802.11g, CH1	Temperature :	25 °C
Memo :		Humidity :	65 %



		Read						Ant	Tab
Item	Freq	Value	Factor	Result	Limit	Margin	Remark	Pos	Pos
2000	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	125.70	44.85	-5.38	39.47	43.50	-4.03	QP	100	0
2	140.55	44.12	-7.72	36.40	43.50	-7.10	Peak	100	0
3	166.13	41.88	-10.34	31.54	43.50	-11.96	Peak	100	0
4	181.25	40.38	-7.17	33.21	43.50	-10.29	Peak	100	0
5	197.20	44.50	-11.58	32.92	43.50	-10.58	Peak	100	0
6	214.80	44.35	-6.99	37.36	43.50	-6.14	Peak	100	0

Notes:

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- All emission below 1GHz at 802.11b/g/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
- According to technical experiences, all spurious emission of 802.11g/n mode at channel 1,6,11 or 3,6,9(for HT40) are almost the same below 1GHz, so that the channel 1 or 3(for HT40) was chosen as representative in final test.
- 6. The data is worse case.

Cerpass Technology Corp.

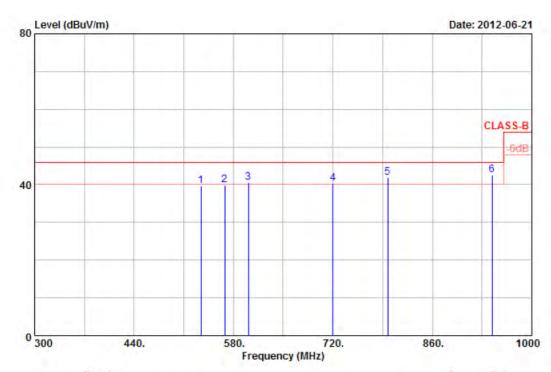
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 30 of 224

Power	:	From System	Pol/Phase :	VERTICAL
Test Mode 1	:	802.11g, CH1	Temperature :	25 °C
Memo	:		Humidity :	65 %



		Read						Ant	Tab
Item	Freq	Value	Factor	Result	Limit	Margin	Remark	Pos	Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	534.50	36.34	3.30	39.64	46.00	-6.36	Peak	100	0
2	567.40	32.85	7.11	39.96	46.00	-6.04	Peak	100	0
3	601.00	37.89	2.60	40.49	46.00	-5.51	QP	100	0
4	720.00	33.95	6.41	40.36	46.00	-5.64	QP	100	0
5	797.00	35.95	5.94	41.89	46.00	-4.11	QP	100	0
6	944.00	31.03	11.47	42.50	46.00	-3.50	QP	100	0

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- All emission below 1GHz at 802.11b/g/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
- According to technical experiences, all spurious emission of 802.11g/n mode at channel 1,6,11 or 3,6,9(for HT40) are almost the same below 1GHz, so that the channel 1 or 3(for HT40) was chosen as representative in final test.
- 6. The data is worse case.

Cerpass Technology Corp.

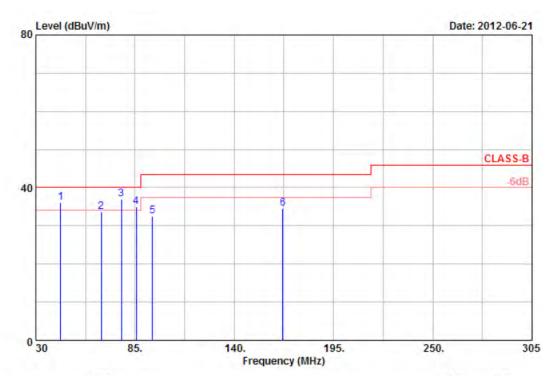
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 31 of 224

Power	:	FROM SYSTEM	Pol/Phase :	HORIZONTAL
Test Mode 1	:	802.11g, CH1	Temperature :	25 °C
Memo	:		Humidity :	65 %



req '	Value	Factor	Result	1 - 2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -				
			Result	Limit	Margin	Remark	Pos	Pos
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
3.75	44.14	-8.03	36.11	40.00	-3.89	QP	100	0
6.30	53.69	-19.96	33.73	40.00	-6.27	Peak	100	0
7.30	56.73	-19.83	36.90	40.00	-3.10	QP	100	0
5.55	53.30	-18.30	35.00	40.00	-5.00	QP	100	0
4.63	51.00	-18.54	32.46	43.50	-11.04	Peak	100	0
6.95	48.78	-14.28	34.50	43.50	-9.00	Peak	100	0
	3.75 6.30 7.30 5.55 4.63	3.75 44.14 66.30 53.69 7.30 56.73 5.55 53.30 4.63 51.00	3.75 44.14 -8.03 66.30 53.69 -19.96 7.30 56.73 -19.83 5.55 53.30 -18.30 4.63 51.00 -18.54	3.75 44.14 -8.03 36.11 66.30 53.69 -19.96 33.73 7.30 56.73 -19.83 36.90 5.55 53.30 -18.30 35.00 4.63 51.00 -18.54 32.46	3.75 44.14 -8.03 36.11 40.00 66.30 53.69 -19.96 33.73 40.00 7.30 56.73 -19.83 36.90 40.00 5.55 53.30 -18.30 35.00 40.00 4.63 51.00 -18.54 32.46 43.50	3.75 44.14 -8.03 36.11 40.00 -3.89 66.30 53.69 -19.96 33.73 40.00 -6.27 7.30 56.73 -19.83 36.90 40.00 -3.10 5.55 53.30 -18.30 35.00 40.00 -5.00 4.63 51.00 -18.54 32.46 43.50 -11.04	3.75 44.14 -8.03 36.11 40.00 -3.89 QP 66.30 53.69 -19.96 33.73 40.00 -6.27 Peak 7.30 56.73 -19.83 36.90 40.00 -3.10 QP 5.55 53.30 -18.30 35.00 40.00 -5.00 QP 4.63 51.00 -18.54 32.46 43.50 -11.04 Peak	3.75 44.14 -8.03 36.11 40.00 -3.89 QP 100 66.30 53.69 -19.96 33.73 40.00 -6.27 Peak 100 7.30 56.73 -19.83 36.90 40.00 -3.10 QP 100 5.55 53.30 -18.30 35.00 40.00 -5.00 QP 100 4.63 51.00 -18.54 32.46 43.50 -11.04 Peak 100

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- All emission below 1GHz at 802.11b/g/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
- According to technical experiences, all spurious emission of 802.11g/n mode at channel 1,6,11 or 3,6,9(for HT40) are almost the same below 1GHz, so that the channel 1 or 3(for HT40) was chosen as representative in final test.
- 6. The data is worse case.

Cerpass Technology Corp.

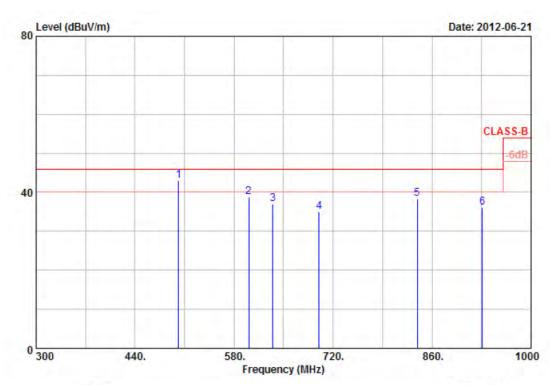
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 32 of 224

Power	:	FROM SYSTEM	Pol/Phase :	HORIZONTAL
Test Mode 1	:	802.11g, CH1	Temperature :	25 °C
Memo	:		Humidity :	65 %



		Read						Ant	Tab
Item	Freq	Value	Factor	Result	Limit	Margin	Remark	Pos	Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	501.60	42.85	0.10	42.95	46.00	-3.05	QP	100	0
2	601.00	36.54	2.12	38.66	46.00	-7.34	Peak	100	0
3	634.60	33.67	3.25	36.92	46.00	-9.08	Peak	100	0
4	700.40	32.85	2.19	35.04	46.00	-10.96	Peak	100	0
5	839.00	29.64	8.66	38.30	46.00	-7.70	Peak	100	0
6	931.40	29.45	6.64	36.09	46.00	-9.91	Peak	100	0

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- All emission below 1GHz at 802.11b/g/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
- According to technical experiences, all spurious emission of 802.11g/n mode at channel 1,6,11 or 3,6,9(for HT40) are almost the same below 1GHz, so that the channel 1 or 3(for HT40) was chosen as representative in final test.
- 6. The data is worse case.

Cerpass Technology Corp.

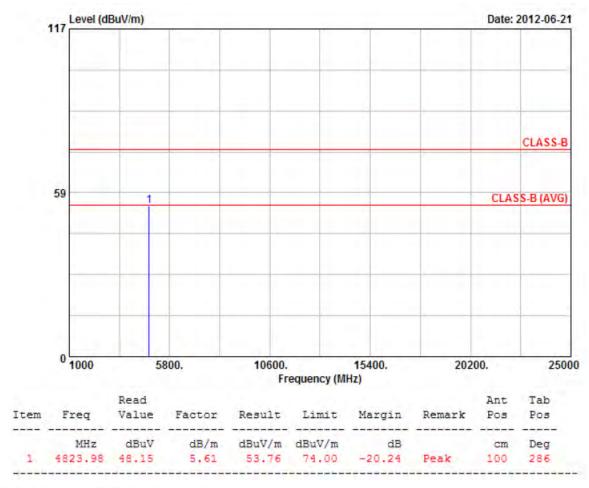
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 33 of 224

Power	:	FROM SYSTEM	Pol/Phase :	VERTICAL
Test Mode 1		802.11b, CH1	Temperature :	25 °C
Memo			Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

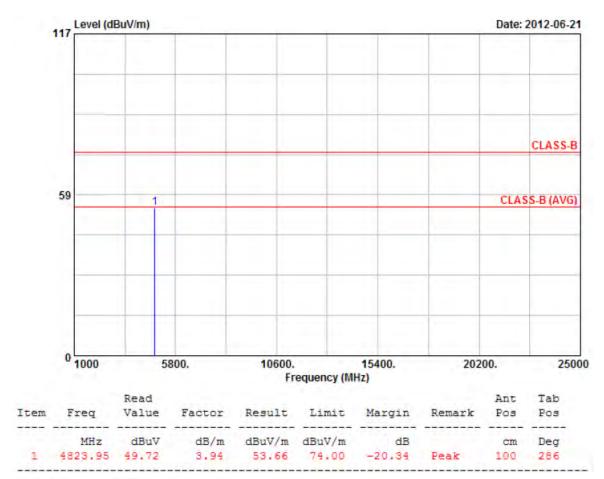
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 34 of 224

Power	:	FROM SYSTEM	Pol/Phase :	HORIZONTAL
Test Mode 1		802.11b, CH1	Temperature :	25 °C
Memo			Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

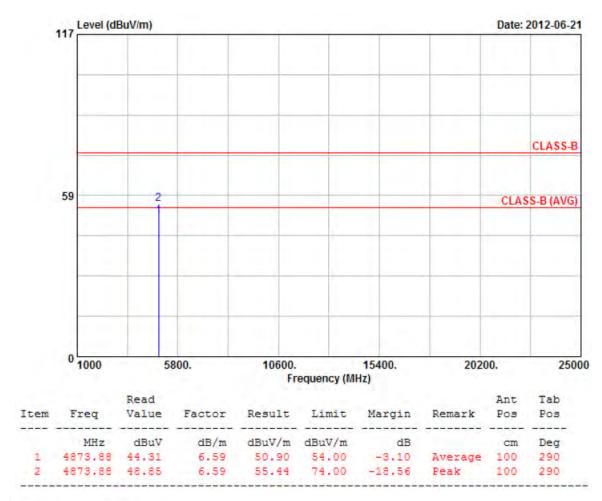
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 35 of 224

Power	:	FROM SYSTEM	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11b, CH6	Temperature	:	25 °C
Memo	:		Humidity	:	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

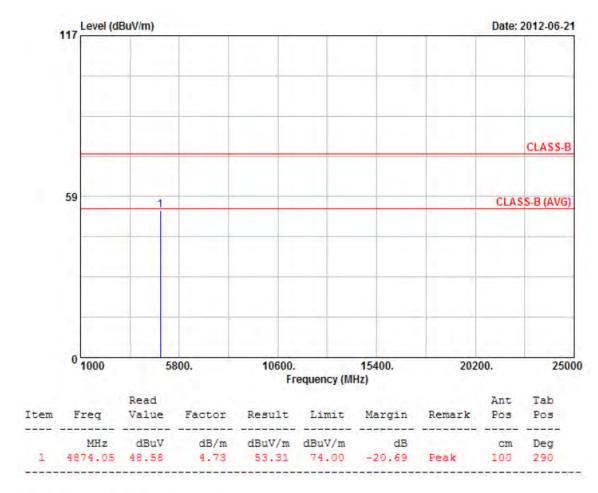
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 36 of 224

Power	:	FROM SYSTEM	Pol/Phase :	HORIZONTAL
Test Mode 1	:	802.11b, CH6	Temperature :	25 °C
Memo	:		Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

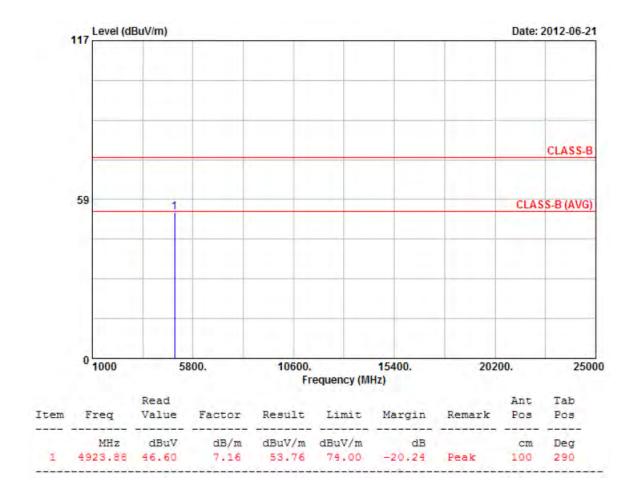
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 37 of 224

Power	:	FROM SYSTEM	Pol/Phase :	VERTICAL
Test Mode 1		802.11b, CH11	Temperature :	25 °C
Memo			Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

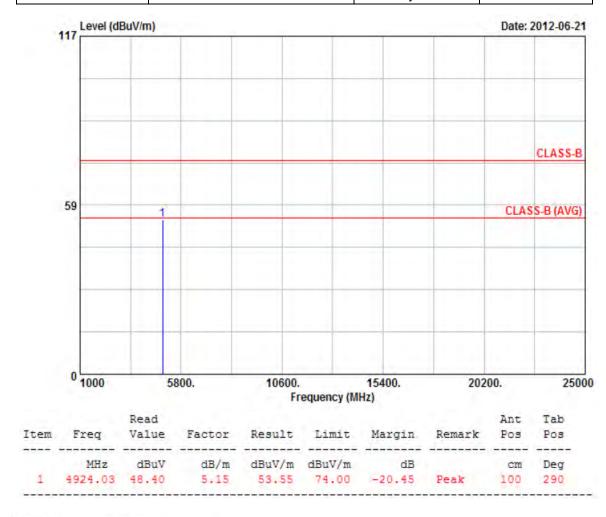
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 38 of 224

Power	:	FROM SYSTEM	Pol/Pl	hase :	HORIZONTAL
Test Mode 1	:	802.11b, CH11	Tempo	erature :	25 °C
Memo	:		Humid	dity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

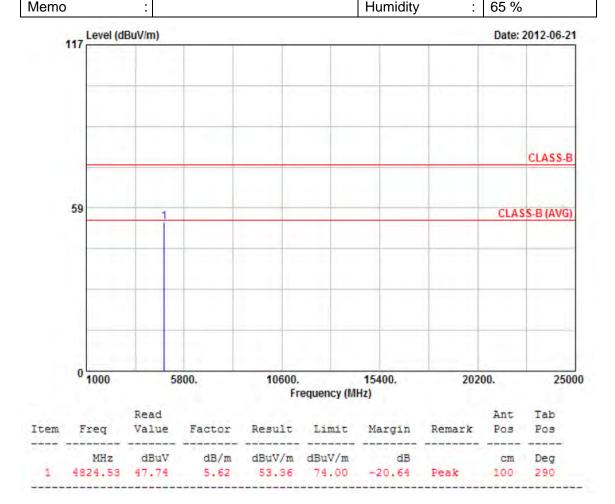
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 39 of 224

Power	:	FROM SYSTEM	Pol/Phase :	VERTICAL
Test Mode 1	:	802.11g, CH1	Temperature :	25 °C
			1.1 2.19	05.04



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

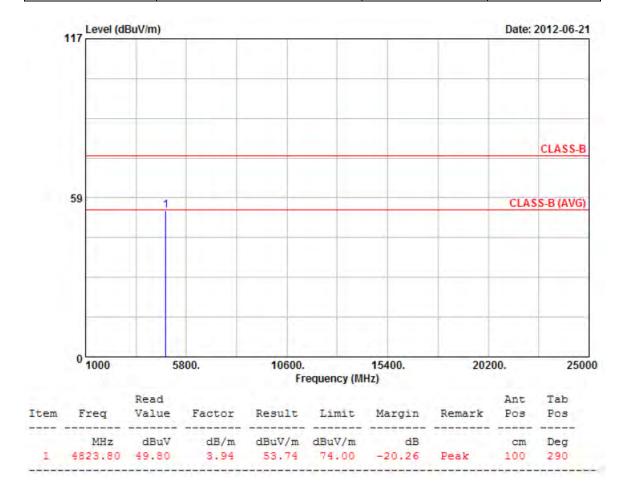
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 40 of 224

Power	:	FROM SYSTEM	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11g, CH1	Temperature	:	25 °C
Memo	:		Humidity	:	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

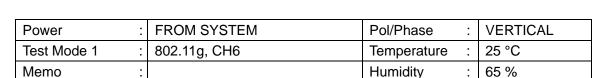
Cerpass Technology Corp.

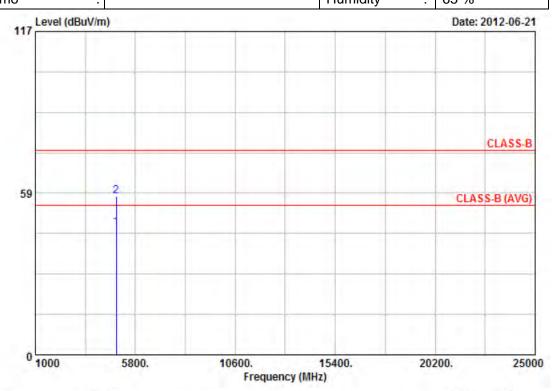
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 41 of 224





Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4873.73	39.23	6.58	45.81	54.00	-8.19	Average	100	290
2	4873.73	50.93	6.58	57.51	74.00	-16.49	Peak	100	290

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

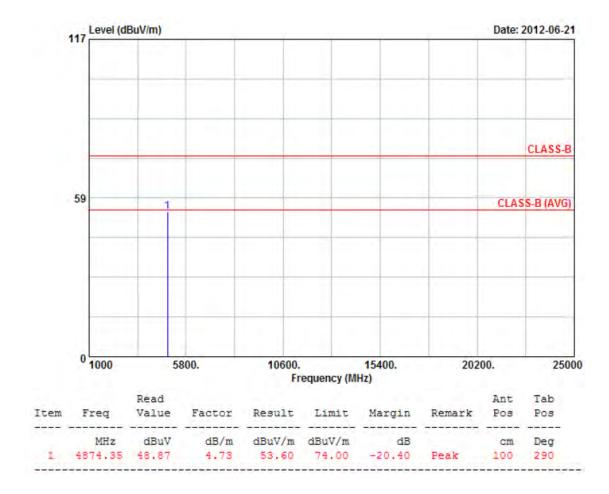
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 42 of 224

Power	:	FROM SYSTEM	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11g, CH6	Temperature	:	25 °C
Memo	:		Humidity	:	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

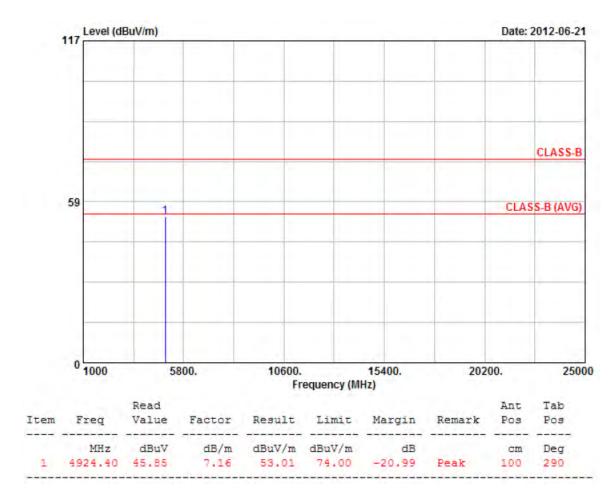
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 43 of 224

Power	:	FROM SYSTEM	Pol/Phase :	VERTICAL
Test Mode 1		802.11g, CH11	Temperature :	25 °C
Memo			Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

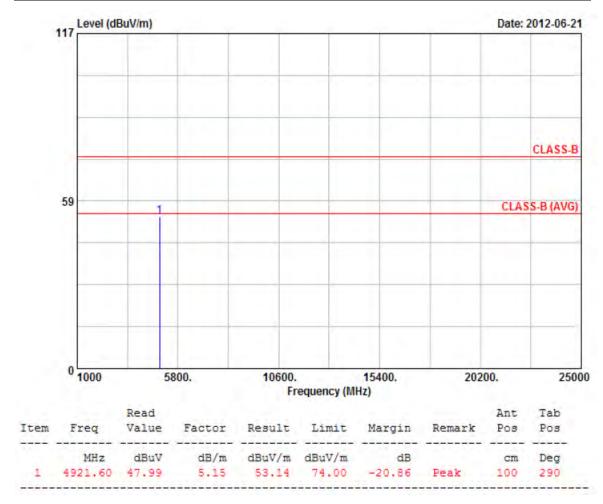
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 44 of 224

Power	FROM SYSTEM	Pol/Phase :	HORIZONTAL
Test Mode 1	802.11g, CH11	Temperature :	25 °C
Memo		Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

Tel:886-2-2655-8100 Fax:886-2-2655-8200

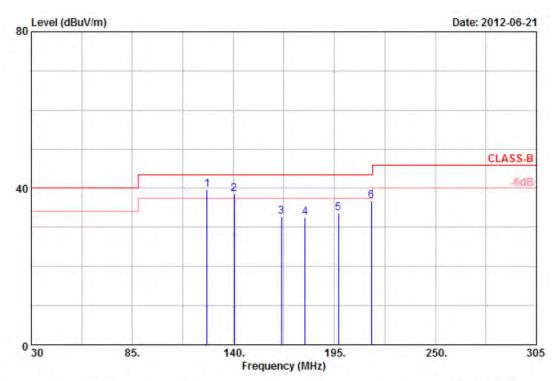
Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 45 of 224



Power :	FROM SYSTEM	Pol/Phase :	VERTICAL		
Test Mode 2 :	802.11n HT20, CH1	Temperature :	25 °C		
Memo :		Humidity :	65 %		



		Read						Ant	Tab	
Item	Freq	Value	Factor	Result	Limit	Margin	Remark	Pos	Pos	
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg	
1	125.70	45.00	-5.38	39.62	43.50	-3.88	QP	100	0	
2	140.55	46.36	-7.72	38.64	43.50	-4.86	QP	100	0	
3	166.13	43.21	-10.34	32.87	43.50	-10.63	Peak	100	0	
4	179.05	38.87	-6.31	32.56	43.50	-10.94	Peak	100	0	
5	197.20	45.12	-11.58	33.54	43.50	-9.96	Peak	100	0	
6	215.08	43.69	-6.82	36.87	43.50	-6.63	Peak	100	0	

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- All emission below 1GHz at 802.11b/g/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
- According to technical experiences, all spurious emission of 802.11g/n mode at channel 1,6,11 or 3,6,9(for HT40) are almost the same below 1GHz, so that the channel 1 or 3(for HT40) was chosen as representative in final test.
- 6. The data is worse case.

Cerpass Technology Corp.

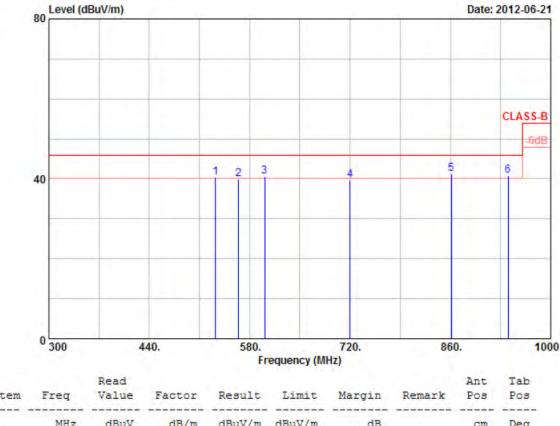
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 46 of 224

Power	:	FROM SYSTEM	Pol/Phase :	VERTICAL
Test Mode 2		802.11n HT20, CH1	Temperature :	25 °C
Memo			Humidity :	65 %



		Read						Ant	dan
Item	Freq	Value	Factor	Result	Limit	Margin	Remark	Pos	Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	532.40	38.15	2.23	40.38	46.00	-5.62	QP	100	0
2	564.60	33.35	6.59	39.94	46.00	-6.06	Peak	100	0
3	601.00	37.93	2.60	40.53	46.00	-5.47	QP	100	0
4	720.00	33.33	6.41	39.74	46.00	-6.26	Peak	100	0
5	861.40	32.36	8.77	41.13	46.00	-4.87	QP	100	0
6	940.50	29.75	11.04	40.79	46.00	-5.21	QP	100	0

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- 4. All emission below 1GHz at 802.11b/g/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
 - According to technical experiences, all spurious emission of 802.11g/n mode at channel 1,6,11 or 3,6,9(for HT40) are almost the same below 1GHz, so that the channel 1 or 3(for HT40) was chosen as representative in final test.
 - 6. The data is worse case.

Cerpass Technology Corp.

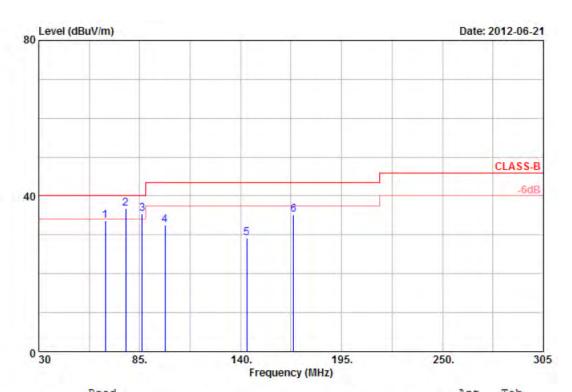
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 47 of 224

Power	:	FROM SYSTEM	Pol/Phase	:	HORIZONTAL
Test Mode 2	:	802.11n HT20, CH1	Temperature		25 °C
Memo	:		Humidity		65 %



		Read						Ant	Tab	
Item	Freq	Value	Factor	Result	Limit	Margin	Remark	Pos	Pos	
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg	
1	66.30	53.55	-19.96	33.59	40.00	-6.41	Peak	100	0	
2	77.30	56.60	-19.83	36.77	40.00	-3.23	QP	100	0	
3	86.38	53.83	-18.33	35.50	40.00	-4.50	QP	100	0	
4	98.75	51.10	-18.65	32.45	43.50	-11.05	Peak	100	0	
5	143.30	43.92	-14.65	29.27	43.50	-14.23	Peak	100	0	
6	168.88	47.28	-12.17	35,11	43.50	-8.39	Peak	100	0	
										-

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- All emission below 1GHz at 802.11b/g/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
- According to technical experiences, all spurious emission of 802.11g/n mode at channel 1,6,11 or 3,6,9(for HT40) are almost the same below 1GHz, so that the channel 1 or 3(for HT40) was chosen as representative in final test.
- 6. The data is worse case.

Cerpass Technology Corp.

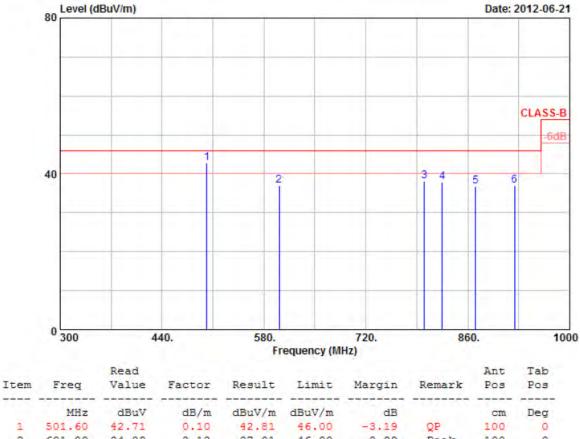
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 48 of 224

Power	:	FROM SYSTEM	Pol/Phase :	HORIZONTAL
Test Mode 2		802.11n HT20, CH1	Temperature :	25 °C
Memo			Humidity :	65 %



1 501.60 42.71 0.10 42.81 46.00 -3.19 QP 100 0 2 601.00 34.89 2.12 37.01 46.00 -8.99 Peak 100 0 3 800.50 32.02 6.14 38.16 46.00 -7.84 Peak 100 0 4 825.00 30.06 7.84 37.90 46.00 -8.10 Peak 100 0 5 870.50 31.91 4.80 36.71 46.00 -9.29 Peak 100 0 6 924.40 30.45 6.65 37.10 46.00 -8.90 Peak 100 0

Notes:

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- All emission below 1GHz at 802.11b/g/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
- According to technical experiences, all spurious emission of 802.11g/n mode at channel 1,6,11 or 3,6,9(for HT40) are almost the same below 1GHz, so that the channel 1 or 3(for HT40) was chosen as representative in final test.
- 6. The data is worse case.

Cerpass Technology Corp.

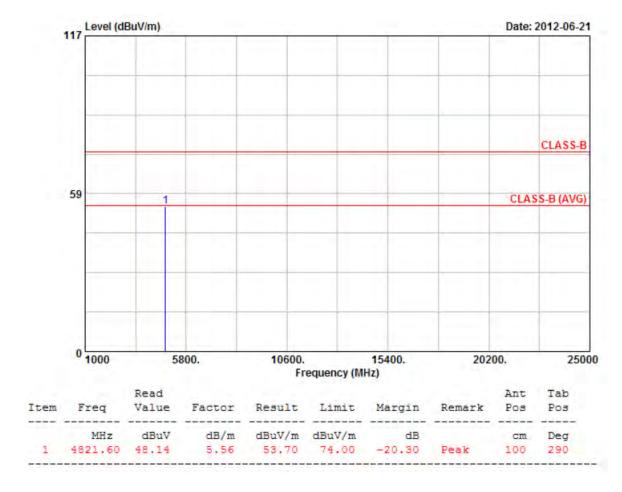
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 49 of 224

Power :	FROM SYSTEM	Pol/Phase :	VERTICAL
Test Mode 2 :	802.11n HT20, CH1	Temperature :	25 °C
Memo :		Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

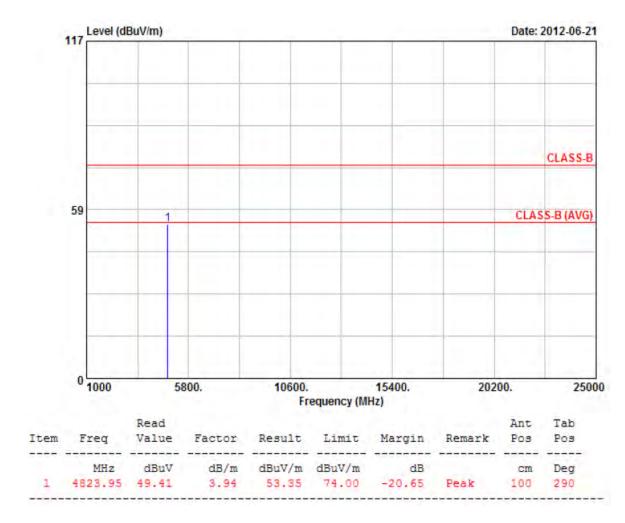
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 50 of 224

Power	FROM SYSTEM	Pol/Phase :	HORIZONTAL
Test Mode 2	802.11n HT20, CH1	Temperature :	25 °C
Memo		Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

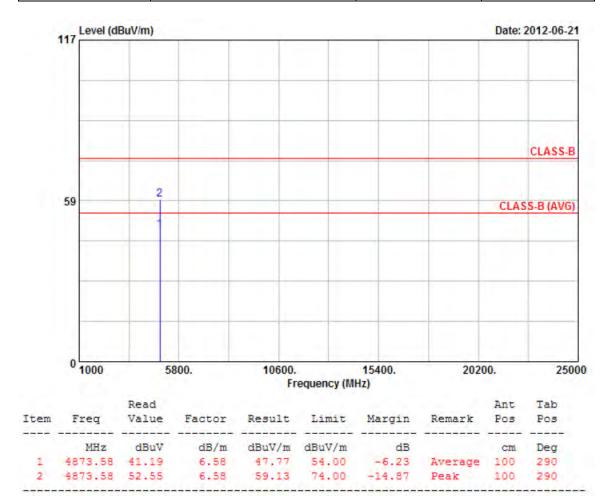
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 51 of 224

Power	:	FROM SYSTEM	Pol/Phase :	VERTICAL
Test Mode 2	:	802.11n HT20, CH6	Temperature :	25 °C
Memo	:		Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- 4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

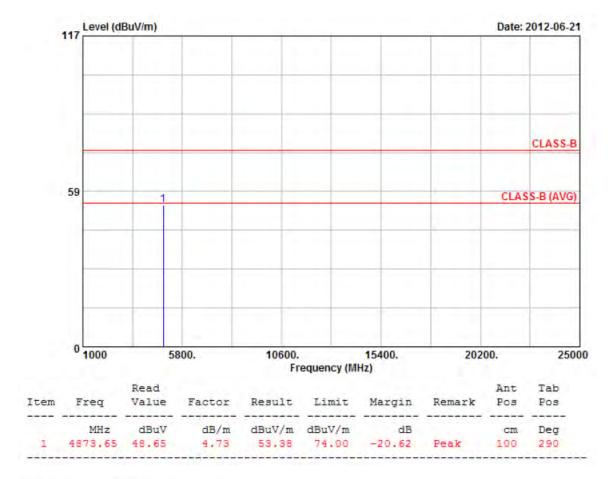
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 52 of 224

Power	:	FROM SYSTEM	Pol/Phase :	HORIZONTAL
Test Mode 2		802.11n HT20, CH6	Temperature :	25 °C
Memo			Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

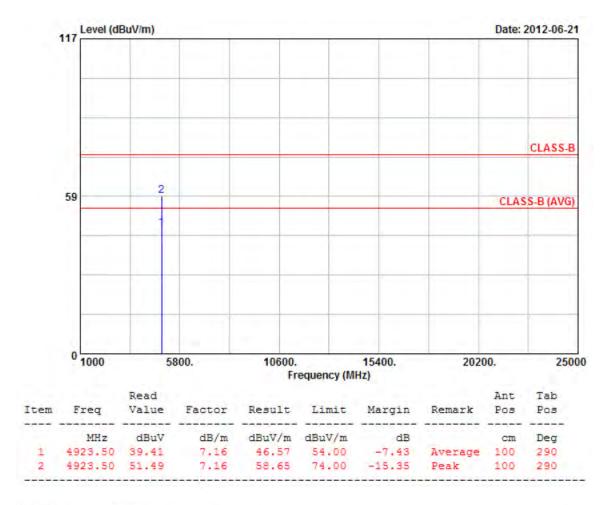
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 53 of 224

Power	:	FROM SYSTEM	Pol/Phase :	VERTICAL
Test Mode 2	:	802.11n HT20, CH11	Temperature :	25 °C
Memo	:		Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

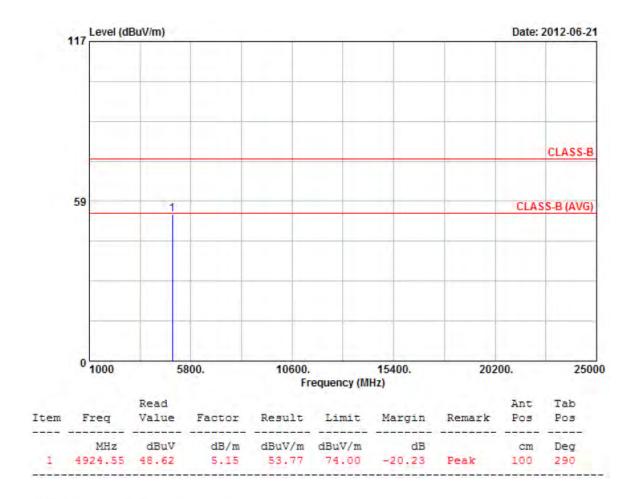
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 54 of 224

Power	:	FROM SYSTEM	Pol/Phase :	HORIZONTAL
Test Mode 2		802.11n HT20, CH11	Temperature :	25 °C
Memo			Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

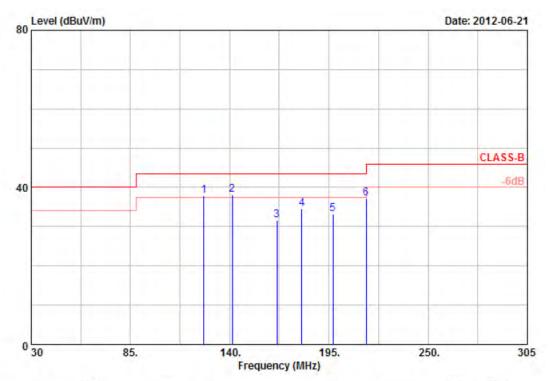
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 55 of 224

Power	:	FROM SYSTEM	Pol/Phase	:	VERTICAL
Test Mode 3	:	802.11n HT40, CH3	Temperature	:	25 °C
Memo	:		Humidity	:	65 %



		Read						Ant	Tab
Item	Freq	Value	Factor	Result	Limit	Margin	Remark	Pos	Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	125.70	43.18	-5.38	37.80	43.50	-5.70	QP	100	0
2	141.38	45.99	-7.95	38.04	43.50	-5.46	QP	100	0
3	166.13	41.94	-10.34	31.60	43.50	-11.90	Peak	100	0
4	179.88	39.51	-5.06	34.45	43.50	-9.05	Peak	100	0
5	197.20	44.69	-11.58	33.11	43.50	-10.39	Peak	100	0
6	215.63	44.05	-6.73	37.32	43.50	-6.18	Peak	100	0

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- All emission below 1GHz at 802.11b/g/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
- According to technical experiences, all spurious emission of 802.11g/n mode at channel 1,6,11 or 3,6,9(for HT40) are almost the same below 1GHz, so that the channel 1 or 3(for HT40) was chosen as representative in final test.
- 6. The data is worse case.

Cerpass Technology Corp.

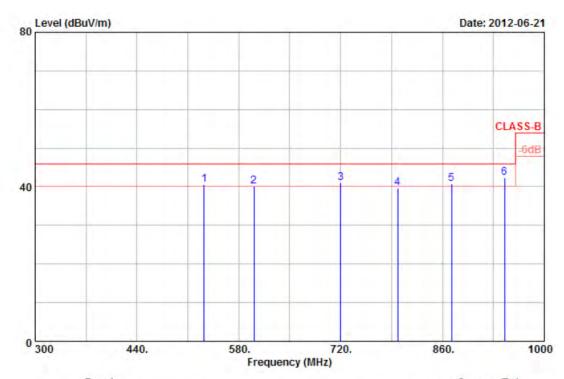
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 56 of 224

Power	FROM SYSTEM	Pol/Phase :	VERTICAL
Test Mode 3	802.11n HT40, CH3	Temperature :	25 °C
Memo		Humidity :	65 %



		Read						Ant	Tab
Item	Freq	Value	Factor	Result	Limit	Margin	Remark	Pos	Pos
-	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	532.40	38.38	2.23	40.61	46.00	-5.39	QP	100	0
2	601.00	37.57	2.60	40.17	46.00	-5.83	QP	100	0
3	720.00	34.67	6.41	41.08	46.00	-4.92	QP	100	0
4	798.40	33.79	5.82	39.61	46.00	-6.39	Peak	100	0
5	872.60	31.32	9.46	40.78	46.00	-5.22	QP	100	0
6	945.40	30.85	11.40	42.25	46.00	-3.75	QP	100	0

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- All emission below 1GHz at 802.11b/g/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
- According to technical experiences, all spurious emission of 802.11g/n mode at channel 1,6,11 or 3,6,9(for HT40) are almost the same below 1GHz, so that the channel 1 or 3(for HT40) was chosen as representative in final test.
- 6. The data is worse case.

Cerpass Technology Corp.

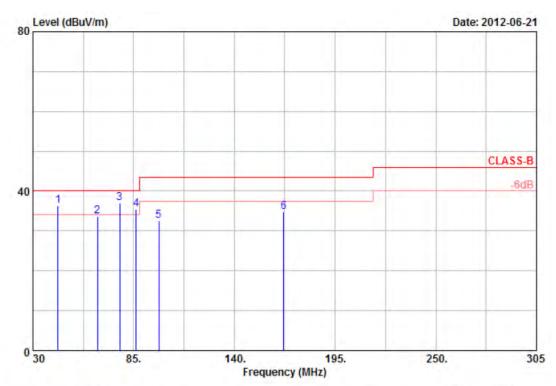
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 57 of 224

Power	:	FROM SYSTEM	Pol/Phase :	HORIZONTAL
Test Mode 3	:	802.11n HT40, CH3	Temperature :	25 °C
Memo	:		Humidity :	65 %



		Read						Ant	Tab
Item	Freq	Value	Factor	Result	Limit	Margin	Remark	Pos	Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	*******	cm	Deg
1	43.75	44.31	-8.03	36.28	40.00	-3.72	QP	100	0
2	65.20	53.15	-19.39	33.76	40.00	-6.24	Peak	100	0
3	77.30	56.83	-19.83	37.00	40.00	-3.00	QP	100	0
4	86.38	53.83	-18.33	35.50	40.00	-4.50	QP	100	0
5	98.75	51.08	-18.65	32.43	43.50	-11.07	Peak	100	0
6	166.95	48.94	-14.28	34.66	43.50	-8.84	Peak	100	0

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- All emission below 1GHz at 802.11b/g/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
- According to technical experiences, all spurious emission of 802.11g/n mode at channel 1,6,11 or 3,6,9(for HT40) are almost the same below 1GHz, so that the channel 1 or 3(for HT40) was chosen as representative in final test.
- 6. The data is worse case.

Cerpass Technology Corp.

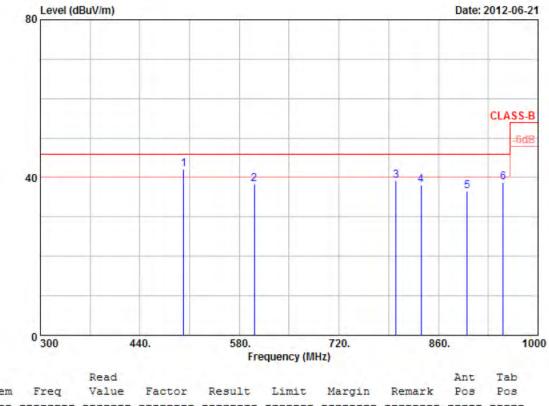
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 58 of 224

Power	FROM SYSTEM	Pol/Phase :	HORIZONTAL
Test Mode 3	802.11n HT40, CH3	Temperature :	25 °C
Memo		Humidity :	65 %



Freq	Value	Factor	Result	Limit	Margin	Remark	Pos	Pos
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
501.60	42.05	0.10	42.15	46.00	-3.85	QP	100	0
601.00	36.22	2.12	38.34	46.00	-7.66	Peak	100	0
800.50	33.07	6.14	39.21	46.00	-6.79	Peak	100	0
835.50	29.15	8.89	38.04	46.00	-7.96	Peak	100	0
900.60	31.47	5.05	36.52	46.00	-9.48	Peak	100	0
951.00	31.60	7.07	38.67	46.00	-7.33	Peak	100	0
	MHz 501.60 601.00 800.50 835.50 900.60	MHz dBuV 501.60 42.05 601.00 36.22 800.50 33.07 835.50 29.15 900.60 31.47	MHz dBuV dB/m 501.60 42.05 0.10 601.00 36.22 2.12 800.50 33.07 6.14 835.50 29.15 8.89 900.60 31.47 5.05	Freq Value Factor Result MHz dBuV dB/m dBuV/m 501.60 42.05 0.10 42.15 601.00 36.22 2.12 38.34 800.50 33.07 6.14 39.21 835.50 29.15 8.89 38.04 900.60 31.47 5.05 36.52	Freq Value Factor Result Limit MHz dBuV dB/m dBuV/m dBuV/m 501.60 42.05 0.10 42.15 46.00 601.00 36.22 2.12 38.34 46.00 800.50 33.07 6.14 39.21 46.00 835.50 29.15 8.89 38.04 46.00 900.60 31.47 5.05 36.52 46.00	Freq Value Factor Result Limit Margin MHz dBuV dB/m dBuV/m dBuV/m dB 501.60 42.05 0.10 42.15 46.00 -3.85 601.00 36.22 2.12 38.34 46.00 -7.66 800.50 33.07 6.14 39.21 46.00 -6.79 835.50 29.15 8.89 38.04 46.00 -7.96 900.60 31.47 5.05 36.52 46.00 -9.48	Freq Value Factor Result Limit Margin Remark MHz dBuV dB/m dBuV/m dBuV/m dB 501.60 42.05 0.10 42.15 46.00 -3.85 QP 601.00 36.22 2.12 38.34 46.00 -7.66 Peak 800.50 33.07 6.14 39.21 46.00 -6.79 Peak 835.50 29.15 8.89 38.04 46.00 -7.96 Peak 900.60 31.47 5.05 36.52 46.00 -9.48 Peak	Freq Value Factor Result Limit Margin Remark Pos MHz dBuV dB/m dBuV/m dBuV/m dB cm 501.60 42.05 0.10 42.15 46.00 -3.85 QP 100 601.00 36.22 2.12 38.34 46.00 -7.66 Peak 100 800.50 33.07 6.14 39.21 46.00 -6.79 Peak 100 835.50 29.15 8.89 38.04 46.00 -7.96 Peak 100 900.60 31.47 5.05 36.52 46.00 -9.48 Peak 100

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- All emission below 1GHz at 802.11b/g/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
- According to technical experiences, all spurious emission of 802.11g/n mode at channel 1,6,11 or 3,6,9(for HT40) are almost the same below 1GHz, so that the channel 1 or 3(for HT40) was chosen as representative in final test.
- 6. The data is worse case.

Cerpass Technology Corp.

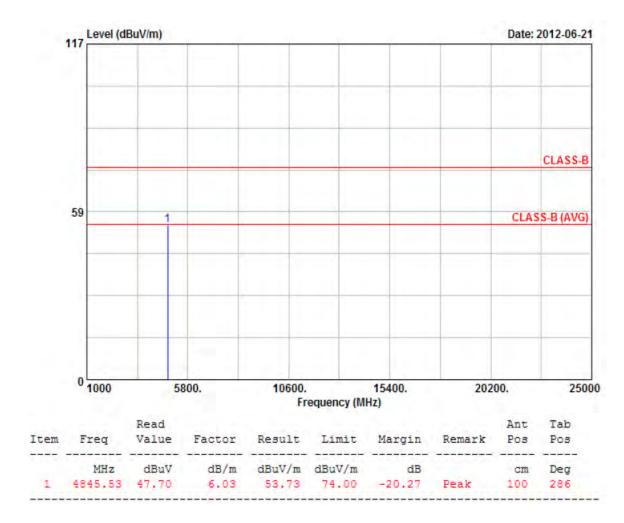
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 59 of 224

Power	:	FROM SYSTEM	Pol/Phase	:	VERTICAL
Test Mode 3	:	802.11n HT40, CH3	Temperature		25 °C
Memo	:		Humidity		65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

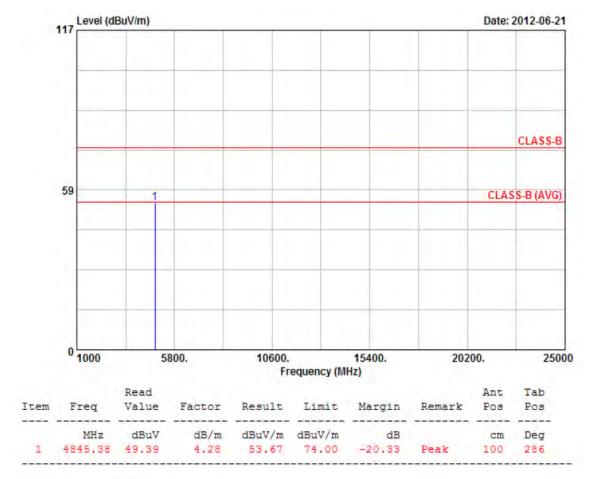
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 60 of 224

Power :	FROM SYSTEM	Pol/Phase :	HORIZONTAL
Test Mode 3 :	802.11n HT40, CH3	Temperature :	25 °C
Memo :		Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

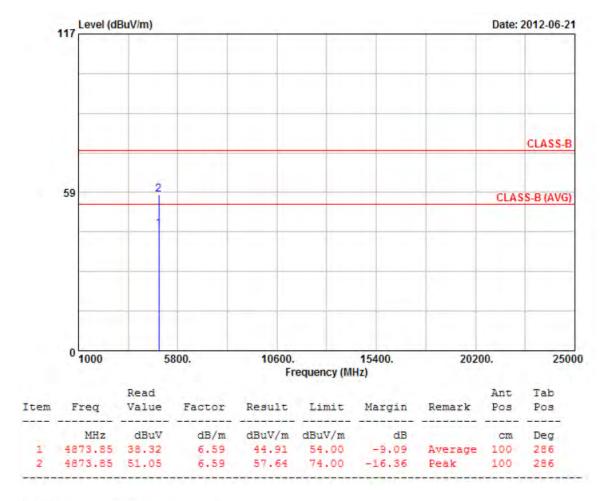
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 61 of 224

Power	:	FROM SYSTEM	Pol/Phase	:	VERTICAL
Test Mode 3	:	802.11n HT40, CH6	Temperature	:	25 °C
Memo	:		Humidity	:	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

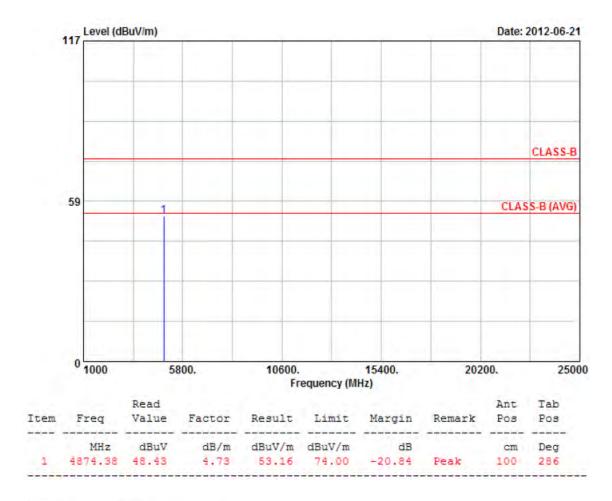
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 62 of 224

Power	:	FROM SYSTEM	Pol/Phase	:	HORIZONTAL
Test Mode 3	:	802.11n HT40, CH6	Temperature		25 °C
Memo	:		Humidity		65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

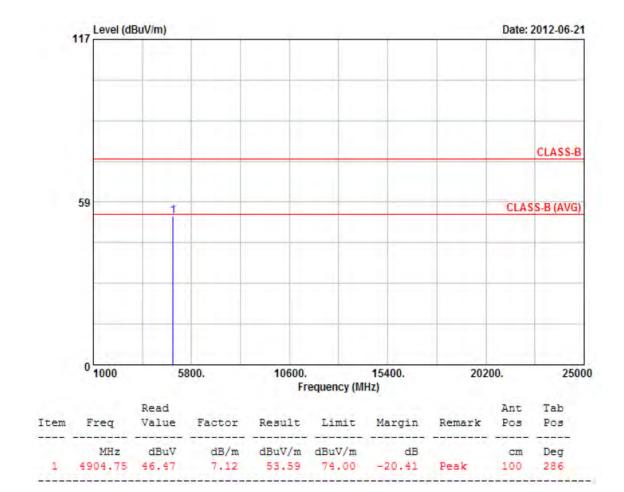
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 63 of 224

Power	:	FROM SYSTEM	Pol/Phase :	VERTICAL
Test Mode 3		802.11n HT40, CH9	Temperature :	25 °C
Memo			Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- 4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

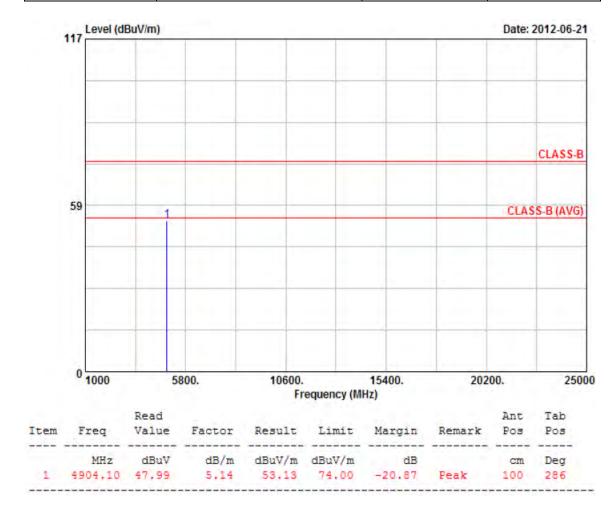
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 64 of 224

Power	:	FROM SYSTEM	Pol/Phase :	HORIZONTAL
Test Mode 3	:	802.11n HT40, CH9	Temperature :	25 °C
Memo	:		Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

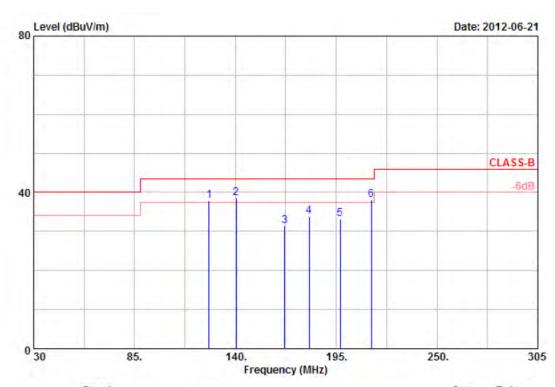
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 65 of 224

Power	:	FROM SYSTEM	Pol/Phase :	VERTICAL
Test Mode 4	:	802.11a, CH149	Temperature :	25 °C
Memo	:		Humidity :	65 %



		Read						Ant	Tab
Item	Freq	Value	Factor	Result	Limit	Margin	Remark	Pos	Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	125.70	43.18	-5.38	37.80	43.50	-5.70	QP	100	0
2	140.55	46.32	-7.72	38.60	43.50	-4.90	QP	100	0
3	166.95	42.60	-11.09	31.51	43.50	-11.99	Peak	100	0
4	180.15	39.03	-5.15	33.88	43.50	-9.62	Peak	100	0
5	197.20	44.77	-11.58	33.19	43.50	-10.31	Peak	100	0
6	214.25	45.48	-7.44	38.04	43.50	-5.46	QP	100	0

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- 4. According to technical experiences, all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz, so that the channel 36 or 38(for HT40), channel 149 or 151(for HT40) was chosen as representative in final test.
- 5. The data is worse case.

Cerpass Technology Corp.

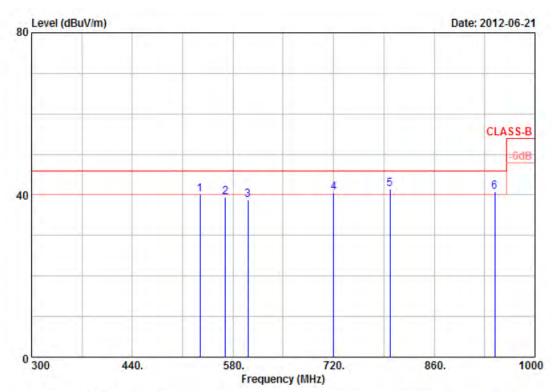
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 66 of 224

Power	:	FROM SYSTEM	Pol/Phase :	VERTICAL
Test Mode 4	:	802.11a, CH149	Temperature :	25 °C
Memo	:		Humidity :	65 %



Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
7777	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	534.50	36.79	3.30	40.09	46.00	-5.91	QP	100	0
2	569.50	31.78	7.60	39.38	46.00	-6.62	Peak	100	.0
3	601.00	36.21	2.60	38.81	46.00	-7.19	Peak	100	0
4	720.00	34.06	6.41	40.47	46.00	-5.53	QP	100	0
5	798.40	35.59	5.82	41.41	46.00	-4.59	QP	100	O
6	944.00	29.42	11.47	40.89	46.00	-5.11	QP	100	0

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- 4. According to technical experiences, all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz, so that the channel 36 or 38 (for HT40), channel 149 or 151 (for HT40) was chosen as representative in final test.
- 5. The data is worse case.

Cerpass Technology Corp.

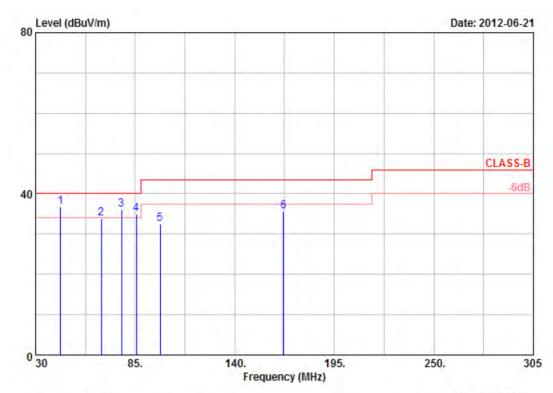
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 67 of 224

Power	:	FROM SYSTEM	Pol/Phase :	HORIZONTAL
Test Mode 4		802.11a, CH149	Temperature :	25 °C
Memo			Humidity :	65 %



		Read						Ant	Tab
Item	Freq	Value	Factor	Result	Limit	Margin	Remark	Pos	Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	43.75	44.81	-8.03	36.78	40.00	-3.22	QP	100	0
2	66.30	53.75	-19.96	33.79	40.00	-6.21	Peak	100	0
3	77.30	55.96	-19.83	36.13	40.00	-3.87	QP	100	0
4	85.55	53.39	-18.30	35.09	40.00	-4.91	QP	100	0
5	98.75	51.24	-18.65	32.59	43.50	-10.91	Peak	100	0
6	166.95	49.92	-14.28	35.64	43.50	-7.86	Peak	100	0

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- 4. According to technical experiences, all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz, so that the channel 36 or 38 (for HT40), channel 149 or 151 (for HT40) was chosen as representative in final test.
- 5. The data is worse case.

Cerpass Technology Corp.

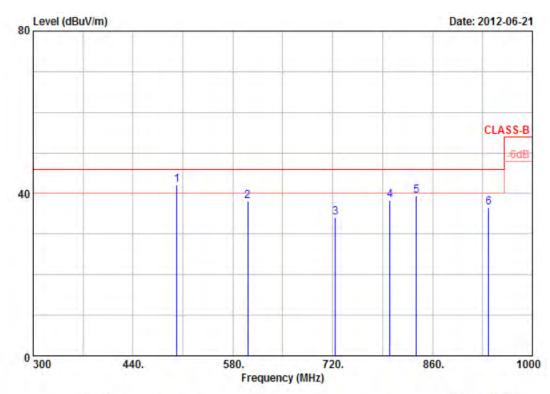
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 68 of 224

Power	:	FROM SYSTEM	Pol/Phase :	HORIZONTAL
Test Mode 4		802.11a, CH149	Temperature :	25 °C
Memo			Humidity :	65 %



		Read						Ant	Tab
Item	Freq	Value	Factor	Result	Limit	Margin	Remark	Pos	Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	501.60	42.06	0.10	42,16	46.00	-3.84	QP	100	0
2	601.00	35.93	2.12	38.05	46.00	-7.95	Peak	100	0
3	723.50	30.48	3.72	34.20	46.00	-11.80	Peak	100	0
4	800.50	32.16	6.14	38.30	46.00	-7.70	Peak	100	0
5	837.60	30.66	8.75	39.41	46.00	-6.59	Peak	100	0
6	938.40	30.18	6.26	36.44	46.00	-9.56	Peak	100	0

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- 4. According to technical experiences, all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz, so that the channel 36 or 38(for HT40), channel 149 or 151(for HT40) was chosen as representative in final test.
- 5. The data is worse case.

Cerpass Technology Corp.

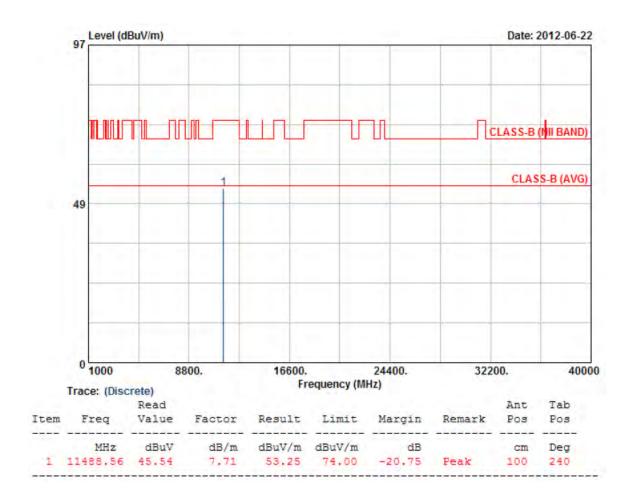
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 69 of 224

Power	:	FROM SYSTEM	Pol/Phase	:	VERTICAL
Test Mode 4		802.11a, CH149	Temperature		22 °C
Memo			Humidity :		65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

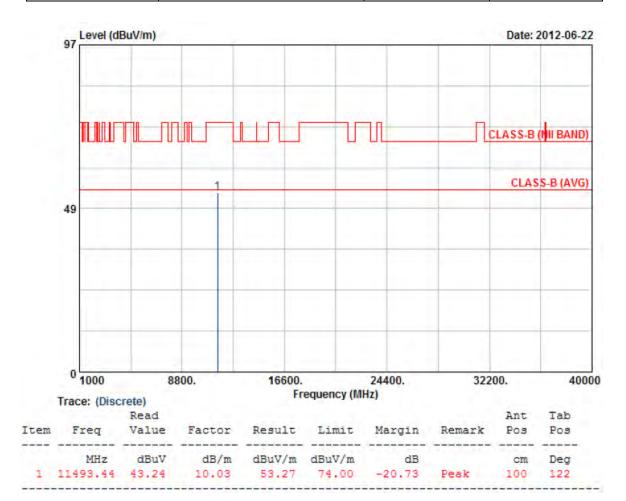
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 70 of 224

Power	:	FROM SYSTEM	Pol/Phase :	HORIZONTAL
Test Mode 4		802.11a, CH149	Temperature :	22 °C
Memo			Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

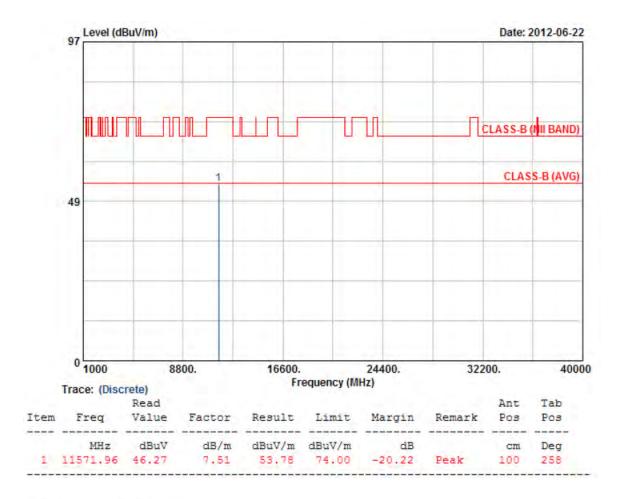
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 71 of 224

Power	:	FROM SYSTEM	Pol/Phase :	VERTICAL
Test Mode 4	:	802.11a, CH157	Temperature :	22 °C
Memo	:		Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

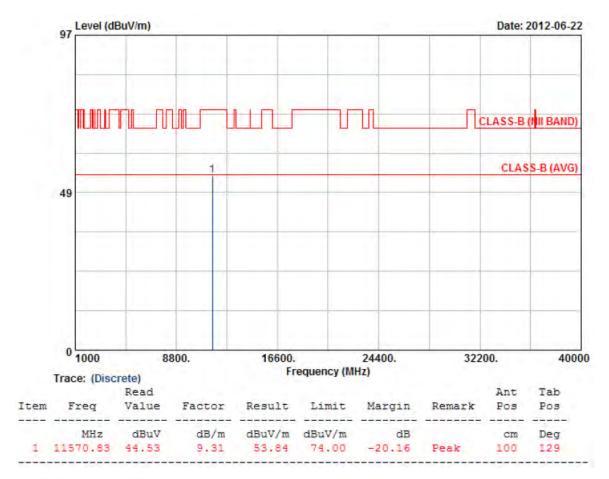
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 72 of 224

Power	:	FROM SYSTEM	Pol/Phase :	HORIZONTAL
Test Mode 4	:	802.11a, CH157	Temperature :	22 °C
Memo	:		Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

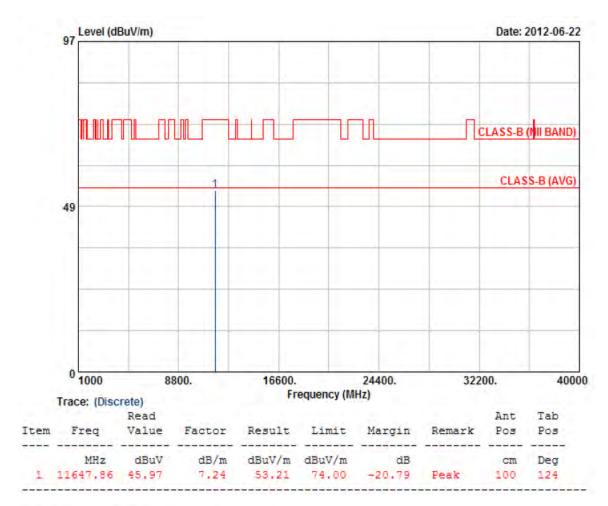
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 73 of 224

Power	FROM SYSTEM	Pol/Phase :	VERTICAL
Test Mode 4	802.11a, CH165	Temperature :	22 °C
Memo		Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

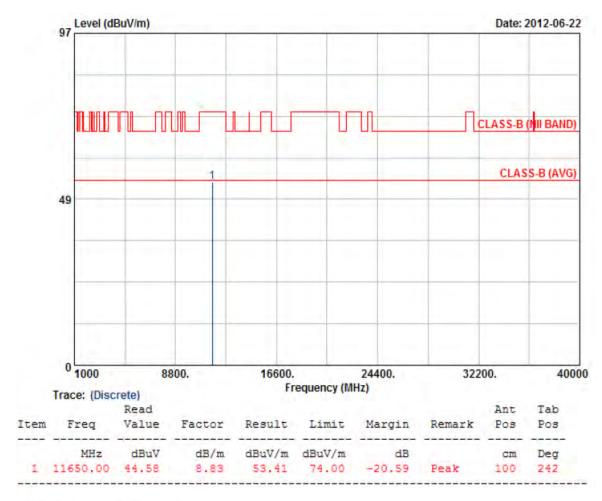
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 74 of 224

Power	:	FROM SYSTEM	Pol/Phase :	HORIZONTAL
Test Mode 4	:	802.11a, CH165	Temperature :	22 °C
Memo	:		Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

Tel:886-2-2655-8100 Fax:886-2-2655-8200

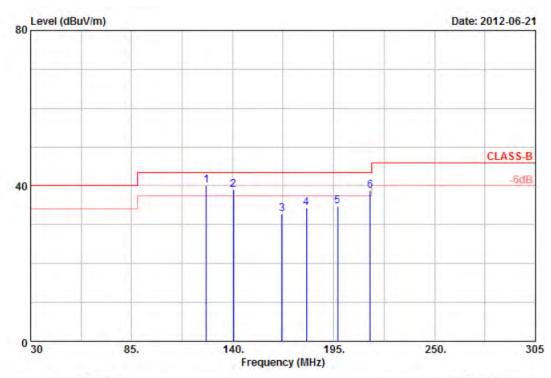
Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 75 of 224



Power	From System	Pol/Phase :	VERTICAL
Test Mode 5	802.11an HT20, CH149	Temperature :	25 °C
Memo		Humidity :	65 %



		Read						Ant	Tab	
Item	Freq	Value	Factor	Result	Limit	Margin	Remark	Pos	Pos	
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg	
1	125.70	45.55	-5.38	40.17	43.50	-3,33	QP	100	0	
2	140.55	46.69	-7.72	38.97	43.50	-4.53	QP	100	0	
3	166.95	43.76	-11.09	32.67	43.50	-10.83	Peak	100	0	
4	180.15	39.47	-5.15	34.32	43.50	-9.18	Peak	100	0	
5	197.20	46.28	-11.58	34.70	43.50	-8,80	Peak	100	0	
6	214.80	45.81	-6.99	38.82	43.50	-4.68	QP	100	0	

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- 4. According to technical experiences, all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz, so that the channel 36 or 38(for HT40), channel 149 or 151(for HT40) was chosen as representative in final test.
- 5. The data is worse case.

Cerpass Technology Corp.

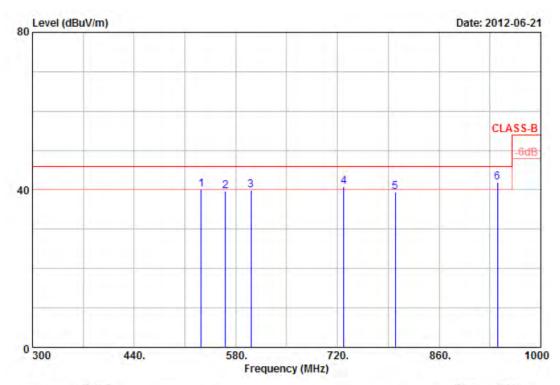
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 76 of 224

Power	:	From System	Pol/Phase :	VERTICAL
Test Mode 5	:	802.11an HT20, CH149	Temperature :	25 °C
Memo	:		Humidity :	65 %



		Read						Ant	Tab	
Item	Freq	Value	Factor	Result	Limit	Margin	Remark	Pos	Pos	

	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg	
1	532.40	37.79	2.23	40.02	46.00	-5.98	QP	100	0	
2	566.00	32.90	6.78	39.68	46.00	-6.32	Peak	100	0	
3	601.00	37.32	2.60	39.92	46.00	-6.08	Peak	100	0	
4	728.40	33.89	6.82	40.71	46.00	-5.29	QP	100	0	
5	799.80	33.82	5.71	39.53	46.00	-6.47	Peak	100	0	
6	940.50	30.75	11.04	41.79	46.00	-4.21	QP	100	0	

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- 4. According to technical experiences, all spurious emission of 802.11a/an mode at Bandl~4 channel are almost the same below 1GHz, so that the channel 36 or 38(for HT40), channel 149 or 151(for HT40) was chosen as representative in final test.
- 5. The data is worse case.

Cerpass Technology Corp.

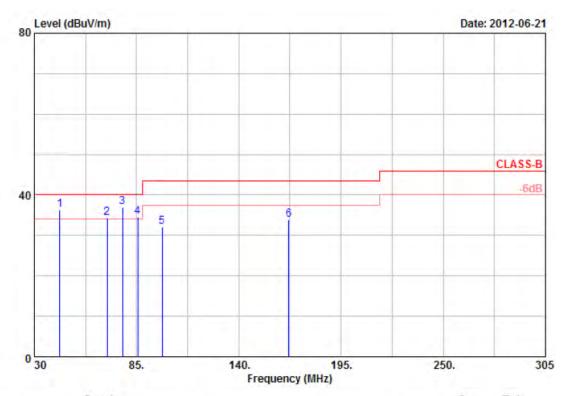
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 77 of 224

Power	:	From System	Pol/Phase	:	HORIZONTAL
Test Mode 5	:	802.11an HT20, CH149	Temperature	:	25 °C
Memo	:		Humidity	:	65 %



		Read						Ant	Tab
Item	Freq	Value	Factor	Result	Limit	Margin	Remark	Pos	Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	43.75	44.45	-8.03	36.42	40.00	-3.58	QP	100	0
2	69.05	55.64	-21.36	34.28	40.00	-5.72	QP	100	0
3	77.30	56.71	-19.83	36.88	40.00	-3.12	QP	100	0
4	85.55	52.95	-18.30	34.65	40.00	-5.35	QP	100	0
5	98.75	50.69	-18.65	32.04	43.50	-11.46	Peak	100	0
6	166.95	48.04	-14.28	33.76	43.50	-9.74	Peak	100	0

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- 4. According to technical experiences, all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz, so that the channel 36 or 38 (for HT40), channel 149 or 151 (for HT40) was chosen as representative in final test.
- 5. The data is worse case.

Cerpass Technology Corp.

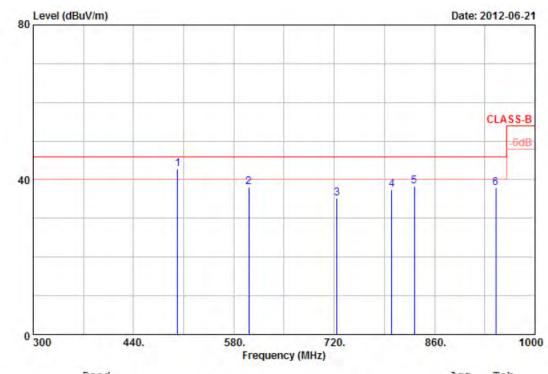
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 78 of 224

Power	:	From System	Pol/Phase	:	HORIZONTAL
Test Mode 5	:	802.11an HT20, CH149	Temperature	:	25 °C
Memo	:		Humidity	:	65 %



2.00	en	Read	Talaharan .	Section 20			James 7	Ant	Tab
Item	Freq	Value	Factor	Result	Limit	Margin	Remark	Pos	Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	501.60	42.77	0.10	42.87	46.00	-3.13	QP	100	0
2	601.00	36.07	2.12	38.19	46.00	-7.81	Peak	100	0
3	723.50	31.52	3.72	35.24	46.00	-10.76	Peak	100	0
4	800.50	31.24	6.14	37.38	46.00	-8.62	Peak	100	0
5	832.00	29.69	8.70	38.39	46.00	-7.61	Peak	100	Q
6	945.40	30.34	7.58	37.92	46.00	-8.08	Peak	100	0

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- 4. According to technical experiences, all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz, so that the channel 36 or 38(for HT40), channel 149 or 151(for HT40) was chosen as representative in final test.
- 5. The data is worse case.

Cerpass Technology Corp.

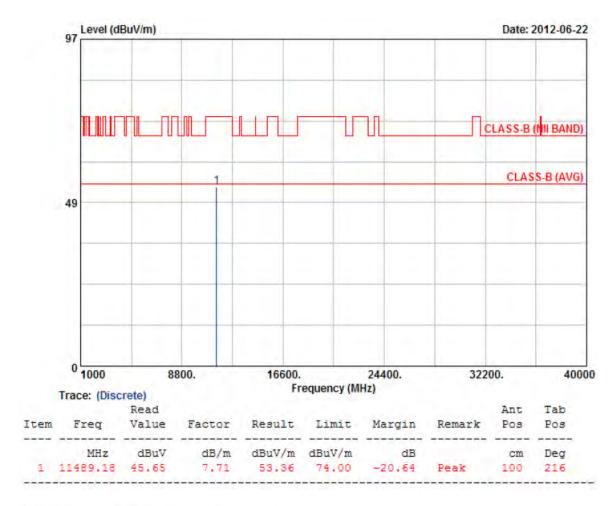
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 79 of 224

Power	:	From System	Pol/Phase :	VERTICAL
Test Mode 5	:	802.11an HT20, CH149	Temperature :	22 °C
Memo	:		Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

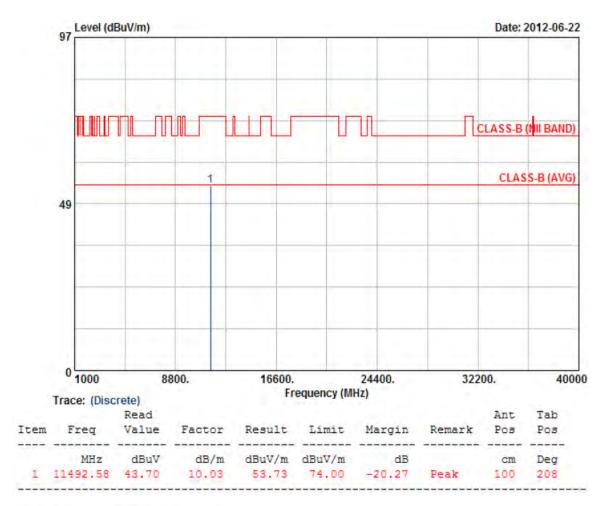
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 80 of 224

Power	:	From System	Pol/Phase :	HORIZONTAL
Test Mode 5	:	802.11an HT20, CH149	Temperature :	22 °C
Memo	:		Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

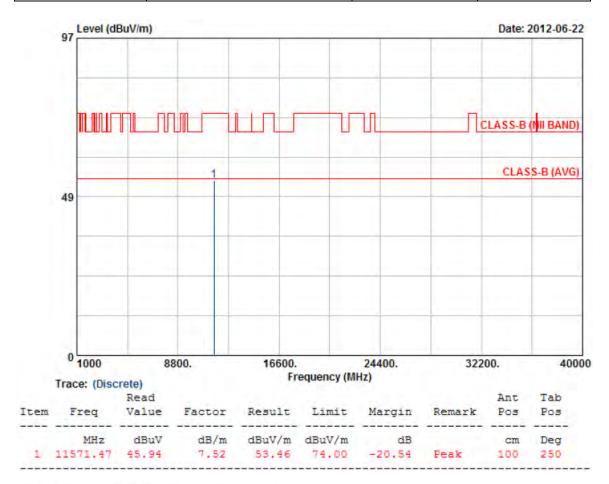
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 81 of 224

Power	:	From System	Pol/Phase	:	VERTICAL
Test Mode 5	:	802.11an HT20, CH157	Temperature	:	22 °C
Memo	:		Humidity	:	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

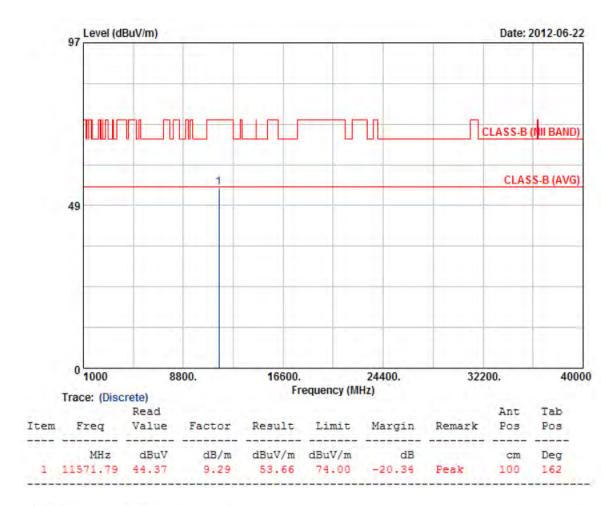
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 82 of 224

Power :	From System	Pol/Phase :	HORIZONTAL
Test Mode 5	802.11an HT20, CH157	Temperature :	22 °C
Memo :		Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- 6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

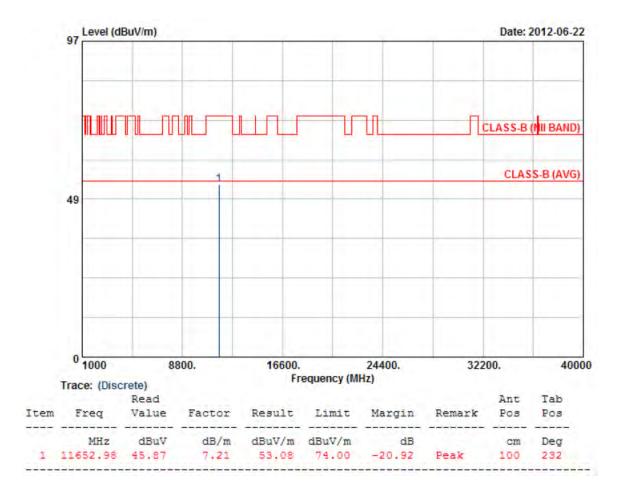
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 83 of 224

Power	:	From System	Pol/Phase	:	VERTICAL
Test Mode 5	:	802.11an HT20, CH165	Temperature	:	22 °C
Memo	:		Humidity	:	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

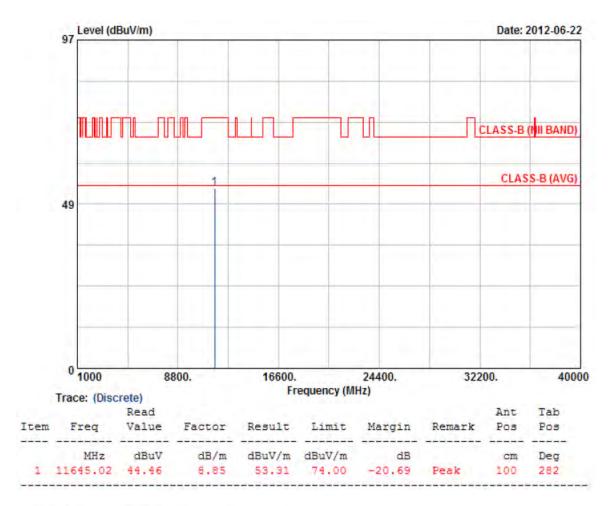
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 84 of 224

Power	:	From System	Pol/Phase :	HORIZONTAL
Test Mode 5		802.11an HT20, CH165	Temperature :	22 °C
Memo			Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

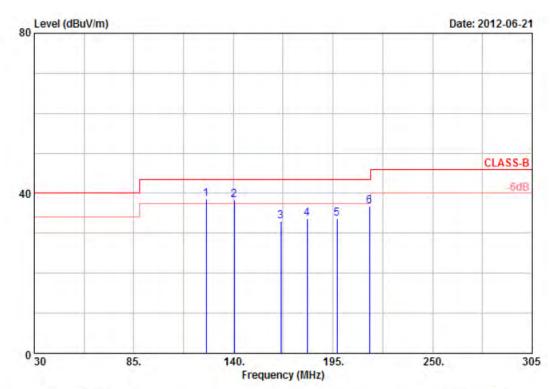
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 85 of 224

Power	From System	Pol/Phase :	VERTICAL
Test Mode 6	802.11an HT40, CH151	Temperature :	25 °C
Memo		Humidity :	65 %



	F	Read		D===12=	*****	Manuala	Damania	Ant	Tab
Item	Freq	Value	Factor	Result	Limit	Margin	Remark	Pos	Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	124.88	43.36	-4.91	38.45	43.50	-5.05	QF	100	0
2	140.55	46.04	-7.72	38.32	43.50	-5.18	QP	100	0
3	166.13	43.39	-10.34	33.05	43.50	-10.45	Peak	100	0
4	180.70	39.70	-6.16	33.54	43.50	-9.96	Peak	100	0
5	197.20	45.28	-11.58	33.70	43.50	-9.80	Peak	100	0
6	215.08	43.62	-6.82	36.80	43.50	-6.70	Peak	100	0

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- 4. According to technical experiences, all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz, so that the channel 36 or 38(for HT40), channel 149 or 151(for HT40) was chosen as representative in final test.
- 5. The data is worse case.

Cerpass Technology Corp.

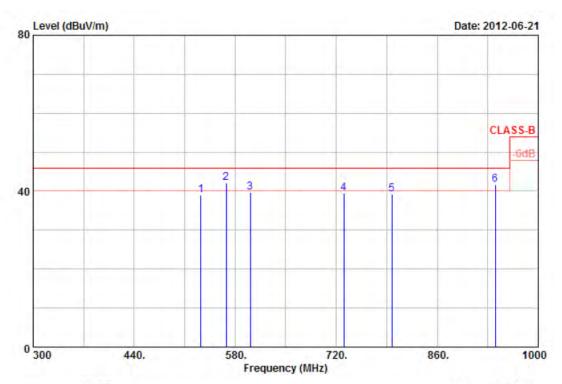
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 86 of 224

Power	From System	Pol/Phase :	VERTICAL
Test Mode 6	802.11an HT40, CH151	Temperature :	25 °C
Memo		Humidity :	65 %



	Read						Ant	Tab
Freq	Value	Factor	Result	Limit	Margin	Remark	Pos	Pos
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
532.40	36.86	2.23	39.09	46.00	-6.91	Peak	100	0
567.40	34.98	7.11	42.09	46.00	-3.91	QP	100	O
601.00	37.07	2.60	39.67	46.00	-6.33	Peak	100	0
730.50	32.35	7.18	39.53	46.00	-6.47	Peak	100	0
797.00	33.23	5.94	39.17	46.00	-6.83	Peak	100	0
940.50	30.68	11.04	41.72	46.00	-4.28	QP	100	0
	MHz 532.40 567.40 601.00 730.50 797.00	MHz dBuV 532.40 36.86 567.40 34.98 601.00 37.07 730.50 32.35 797.00 33.23	MHz dBuV dB/m 532.40 36.86 2.23 567.40 34.98 7.11 601.00 37.07 2.60 730.50 32.35 7.18 797.00 33.23 5.94	Freq Value Factor Result MHz dBuV dB/m dBuV/m 532.40 36.86 2.23 39.09 567.40 34.98 7.11 42.09 601.00 37.07 2.60 39.67 730.50 32.35 7.18 39.53 797.00 33.23 5.94 39.17	Freq Value Factor Result Limit MHz dBuV dB/m dBuV/m dBuV/m 532.40 36.86 2.23 39.09 46.00 567.40 34.98 7.11 42.09 46.00 601.00 37.07 2.60 39.67 46.00 730.50 32.35 7.18 39.53 46.00 797.00 33.23 5.94 39.17 46.00	Freq Value Factor Result Limit Margin MHz dBuV dB/m dBuV/m dBuV/m dB 532.40 36.86 2.23 39.09 46.00 -6.91 567.40 34.98 7.11 42.09 46.00 -3.91 601.00 37.07 2.60 39.67 46.00 -6.33 730.50 32.35 7.18 39.53 46.00 -6.47 797.00 33.23 5.94 39.17 46.00 -6.83	MHz dBuV dB/m dBuV/m dBuV/m dBuV/m dB 532.40 36.86 2.23 39.09 46.00 -6.91 Peak 567.40 34.98 7.11 42.09 46.00 -3.91 QP 601.00 37.07 2.60 39.67 46.00 -6.33 Peak 730.50 32.35 7.18 39.53 46.00 -6.47 Peak 797.00 33.23 5.94 39.17 46.00 -6.83 Peak	Freq Value Factor Result Limit Margin Remark Pos MHz dBuV dB/m dBuV/m dBuV/m dB cm 532.40 36.86 2.23 39.09 46.00 -6.91 Peak 100 567.40 34.98 7.11 42.09 46.00 -3.91 QP 100 601.00 37.07 2.60 39.67 46.00 -6.33 Peak 100 730.50 32.35 7.18 39.53 46.00 -6.47 Peak 100 797.00 33.23 5.94 39.17 46.00 -6.83 Peak 100

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- 4. According to technical experiences, all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz, so that the channel 36 or 38 (for HT40), channel 149 or 151 (for HT40) was chosen as representative in final test.
- 5. The data is worse case.

Cerpass Technology Corp.

Tel:886-2-2655-8100 Fax:886-2-2655-8200

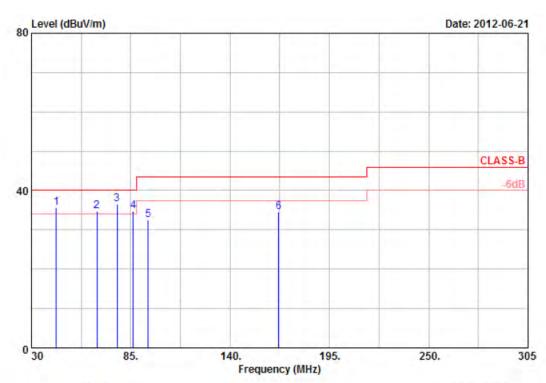
Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 87 of 224



Power	:	From System	Pol/Phase :	:	HORIZONTAL
Test Mode 6		802.11an HT40, CH151	Temperature :		25 °C
Memo			Humidity :		65 %



		Read						Ant	Tab
Item	Freq	Value	Factor	Result	Limit	Margin	Remark	Pos	Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	43.75	43.69	-8.03	35.66	40.00	-4.34	QP	100	0
2	66.30	54.62	-19.96	34.66	40.00	-5.34	QP	100	0
3	77.30	56.42	-19.83	36.59	40.00	-3.41	QP	100	0
4	86.38	53.11	-18.33	34.78	40.00	-5.22	QP	100	0
5	94.63	51.04	-18.54	32.50	43.50	-11.00	Peak	100	0
6	166.95	48.88	-14.28	34.60	43.50	-8.90	Peak	100	0

- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- 4. According to technical experiences, all spurious emission of 802.11a/an mode at Bandl~4 channel are almost the same below 1GHz, so that the channel 36 or 38(for HT40), channel 149 or 151(for HT40) was chosen as representative in final test.
- 5. The data is worse case.

Cerpass Technology Corp.

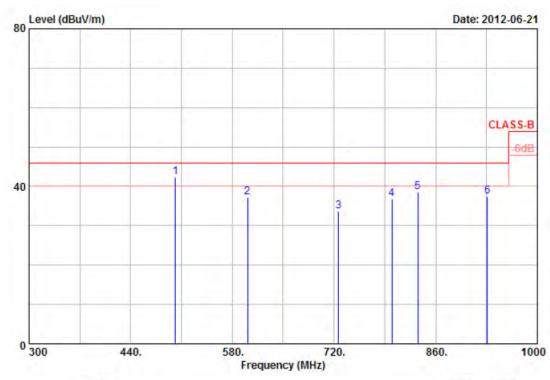
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 88 of 224

Power	:	From System	Pol/Phase	:	HORIZONTAL
Test Mode 6		802.11an HT40, CH151	Temperature		25 °C
Memo	:		Humidity	:	65 %



Item	Freq	Value	Factor	Result	The Street Street	2.0			
					Limit	Margin	Remark	Pos	Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	501.60	42.22	0.10	42.32	46.00	-3.68	QP	100	0
2	601.00	35.21	2.12	37.33	46.00	-8.67	Peak	100	0
3	726.30	30.05	3.68	33.73	46.00	-12.27	Peak	100	0
4	799.80	30.66	6.17	36.83	46.00	-9.17	Peak	100	0
5	835.50	29.56	8.89	38.45	46.00	-7.55	Peak	100	0
6	931.40	30.76	6.64	37.40	46.00	-8.60	Peak	100	0
5	799.80 835.50	30.66	6.17 8.89	36.83 38.45	46.00 46.00	-9.17 -7.55		Peak Peak	Peak 100 Peak 100

- 1. Result = Read Value + Factor
 - 2. Factor = Antenna Factor + Cable Loss Amplifier
 - The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
 - 4. According to technical experiences, all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz, so that the channel 36 or 38(for HT40), channel 149 or 151(for HT40) was chosen as representative in final test.
 - 5. The data is worse case.

Cerpass Technology Corp.

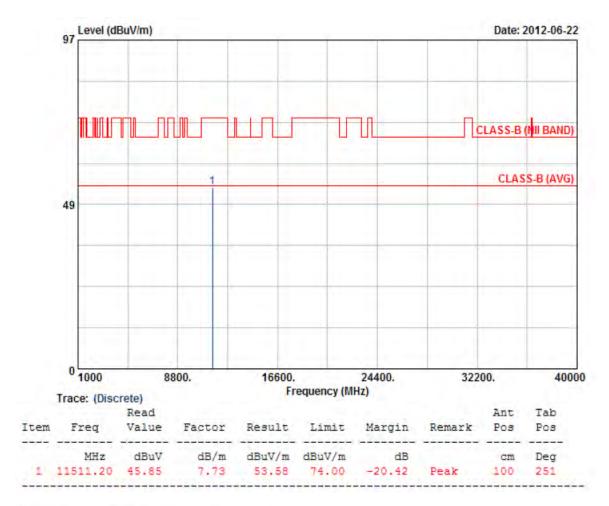
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 89 of 224

Power	:	From System	Pol/Phase	:	VERTICAL
Test Mode 6		802.11an HT40, CH151	Temperature		22 °C
Memo			Humidity		65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

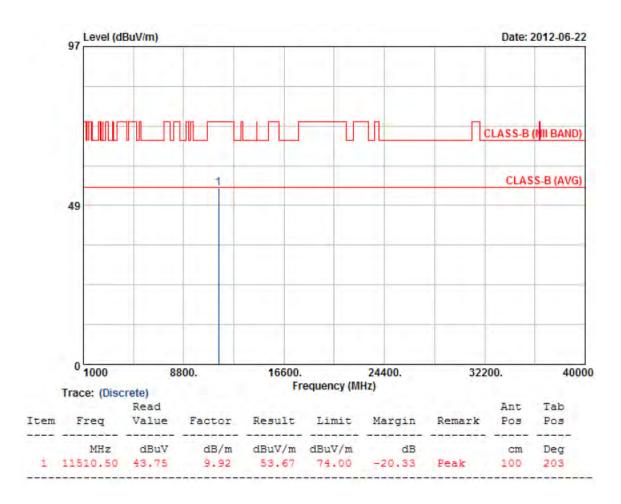
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 90 of 224

Power :	From System	Pol/Phase :	HORIZONTAL
Test Mode 6 :	802.11an HT40, CH151	Temperature :	22 °C
Memo :		Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

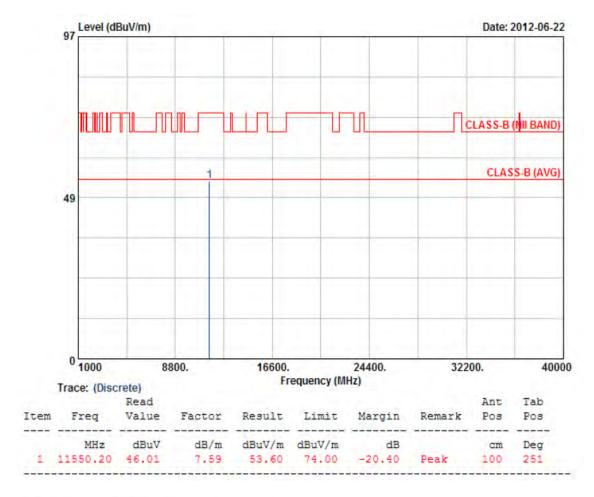
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 91 of 224

Power	:	From System	Pol/Phase	:	VERTICAL
Test Mode 6	:	802.11an HT40, CH155	Temperature		22 °C
Memo	:		Humidity		65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

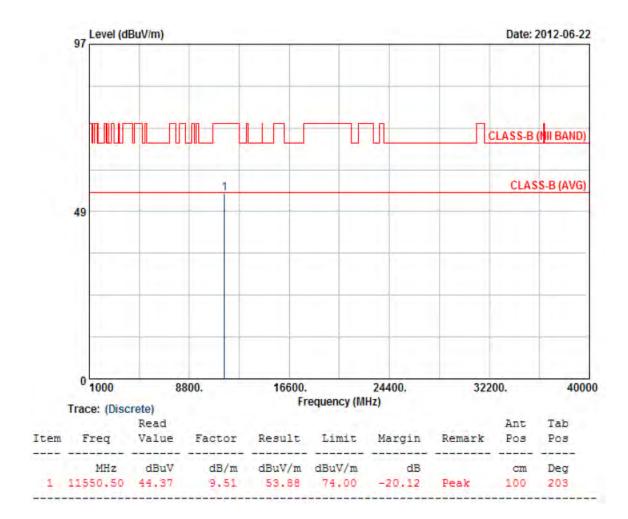
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 92 of 224

Power	:	From System	Pol/Phase	:	HORIZONTAL
Test Mode 6	:	802.11an HT40, CH155	Temperature	:	22 °C
Memo	:		Humidity	:	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

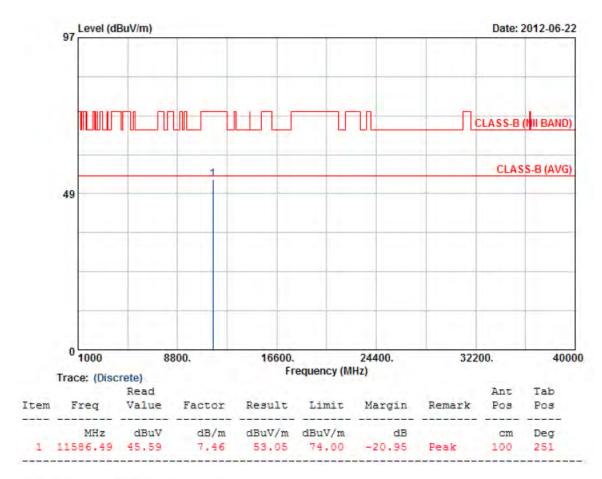
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 93 of 224

Power	:	From System	Pol/Phase :	:	VERTICAL
Test Mode 6	:	802.11an HT40, CH159	Temperature :	:	22 °C
Memo	:		Humidity :	:	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

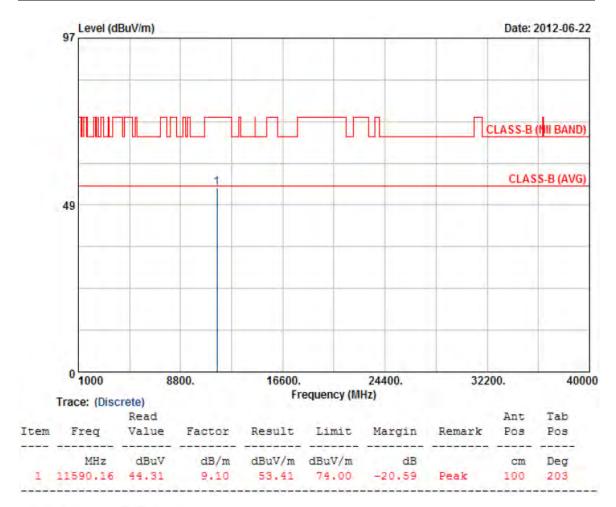
Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 94 of 224

Power :	From System	Pol/Phase :	HORIZONTAL
Test Mode 6	802.11an HT40, CH159	Temperature :	22 °C
Memo :		Humidity :	65 %



- 1. Result = Read Value + Factor
- 2. Factor = Antenna Factor + Cable Loss Amplifier
- The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
- 6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
- 7. The data is worse case.

Cerpass Technology Corp.

Tel:886-2-2655-8100 Fax:886-2-2655-8200

Issued date : Aug. 22, 2012

Report No.: TEFI1206135-A

Page No. : 95 of 224