







#### ISO/IEC17025Accredited Lab.

Report No: FCC 1409121 File reference No: 2014-09-22

Applicant: ULTRA SUCCESS INTERNATIONAL LIMITED

Product: MID

Model No: PLT1052 (512-8GB)

Trademark: PROSCAN

Test Standards: FCC Part 15.247

Test result:

It is herewith confirmed and found to comply with the

requirements set up by ANSI C63.4, FCC Part 15 Subpart C, Paragraph 15.247 regulations for the evaluation of

electromagnetic compatibility

Approved By

Jack Chung

Jack Chung

Manager

Dated: Sep 22, 2014

Results appearing herein relate only to the sample tested

The technical reports is issued errors and omissions exempt and is subject to withdrawal at

# SHENZHEN TIMEWAY TECHNOLOGY CONSULTING CO., LTD

5/F,Block 4, Anhua Industrial Zone.,No.8 TaiRan Rd.CheGongMiao,FuTian District, Shenzhen,CHINA.

Tel (755) 83448688, Fax (755) 83442996, E-Mail:info@timewaytech.com

Report No: 1409121 Page 2 of 101

Date: 2014-09-22



# **Special Statement:**

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19.

The testing quality system of our laboratory meet with ISO/IEC-17025 requirements, which is approved by CNAL. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

#### **CNAL-LAB Code: L2292**

The EMC Laboratory has been assessed and in compliance with CNAL/AC01:2002 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:1999 General Requirements) for the Competence of testing Laboratories.

# FCC-Registration No.: 899988

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 899988.

# IC- Registration No.: IC5205A-02

The EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada. The acceptance letter from the IC is maintained in our files. Registration IC No.: 5205A-02.

Page 3 of 101

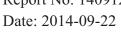
Report No: 1409121 Date: 2014-09-22



# **Test Report Conclusion**

#### Content

1.0	General Details	4
1.1	Test Lab Details.	4
1.2	Applicant Details.	4
1.3	Description of EUT	4
1.4	Submitted Sample	5
1.5	Test Duration.	5
1.6	Test Uncertainty.	5
1.7	Test By	5
2.0	List of Measurement Equipment.	6
3.0	Technical Details	8
3.1	Summary of Test Results.	8
3.2	Test Standards.	8
4.0	EUT Modification.	8
5.0	Power Line Conducted Emission Test.	9
5.1	Schematics of the Test.	9
5.2	Test Method and Test Procedure.	9
5.3	Configuration of the EUT.	9
5.4	EUT Operating Condition.	10
5.5	Conducted Emission Limit.	10
5.6	Test Result.	10
6.0	Radiated Emission test.	13
5.1	Test Method and Test Procedure.	13
6.2	Configuration of the EUT.	13
6.3	EUT Operation Condition.	13
6.4	Radiated Emission Limit.	14
7.0	6dB Bandwidth Measurement.	38
8.0	Maximum Peak Output Power.	58
9.0	Power Spectral Density Measurement.	61
10.0	Out of Band Measurement.	79
11.0	Antenna Requirement.	88
12.0	FCC Label.	89
13.0	Photo of Test Setup and EUT View.	90





#### 1.0 General Details

#### 1.1 Test Lab Details

Name: SHENZHEN TIMEWAY TECHNOLOGY CONSULTING CO., LTD

Address: 5/F,Block 4, Anhua Industrial Zone.,No.8 TaiRan Rd.CheGongMiao,FuTian District,

Shenzhen, CHINA.

Telephone: (755) 83448688 Fax: (755) 83442996

Site on File with the Federal Communications Commission – United Sates

Registration Number: 899988

For 3m & 10 m OATS

Site Listed with Industry Canada of Ottawa, Canada

Registration Number: IC: 5205A-02

For 3m & 10 m OATS

#### 1.2 Applicant Details

Applicant: ULTRA SUCCESS INTERNATIONAL LIMITED

Address: Unit No.09 31/F Office Tower Convention Plaza 1 Harbour Road Wanchai HK

Telephone: 13424181221

Fax: 86-0755-84117891

#### 1.3 Description of EUT

Product: MID

Manufacturer: Jiuzhou Group Holdings Limited-digital Dept

Address: 4F, B5d Building, Yingzhan Industrial Zone, Longtian Community, Kengzi

Street, Longgang, Shenzhen, China

Brand Name: PROSCAN

Model Number: PLT1052 (512-8GB)

Additional Model Number: N/A

Power Adapter Model No.: TSHA10U-050200

Input: 100-240V, 50/60Hz, 0.45A; Output: 5V, 2A

Type of Modulation IEEE 802.11b : DSSS (CCK, QPSK, DBPSK)

IEEE 802.11g/n (HT20, HT40): OFDM(64QAM, 16QAM, QPSK, BPSK)

Frequency range IEEE 802.11b/g/n (HT20): 2412-2462MHz; 802.11n(HT40): 2422-2452MHz

Channel Spacing 5MHz for IEEE 802.11b/g/n(HT20, HT40)

Air Data Rate IEEE 802.11b : 11, 5.5, 2, 1 Mbps

IEEE 802.11g: 54, 48,36, 24, 18, 12, 9, 6 Mbps

IEEE 802.11n HT20/40: 135, 117, 104, 78, 65, 58.5, 52, 39, 26, 19.5, 13, 6 Mbps

Frequency Selection By software

Channel Number IEEE 802.11b/g/n (HT20): 11 Channels

IEEE 802.11n HT40: 7 Channels

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co.,Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co.,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co.,Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting co .,Ltd reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Report No: 1409121 Page 5 of 101
Date: 2014-09-22



Antenna:

Integral Antenna with maximum gain 2.0 dBi

1.4 Submitted Sample: 2 Samples

1.5 Test Duration

2014-09-15 to 2014-09-22

1.6 Test Uncertainty

Conducted Emissions Uncertainty = 3.6dB Radiated Emissions Uncertainty = 4.7dB

1.7 Test Engineer

Terry lang

The sample tested by

Print Name: Terry Tang

Page 6 of 101

Report No: 1409121 Date: 2014-09-22



2.0	0 Test Equipments									
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date					
ESPI Test Receiver	R&S	ESPI 3	100379	2014-08-22	2015-08-21					
TWO Line-V-NETW	R&S	EZH3-Z5	100294	2014-08-22	2015-08-21					
TWO Line-V-NETW	R&S	EZH3-Z5	100253	2014-08-22	2015-08-21					
Ultra Broadband ANT	R&S	HL562	100157	2014-08-22	2015-08-21					
ESDV Test Receiver	R&S	ESDV	100008	2014-08-22	2015-08-21					
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2014-08-22	2015-08-21					
System Controller	СТ	SC100	-							
Printer	EPSON	РНОТО ЕХЗ	CFNH234850							
Computer	IBM	8434	1S8434KCE99BLX LO*	-	-					
Loop Antenna	EMCO	6502	00042960	2014-08-22	2015-08-21					
ESPI Test Receiver	R&S	ESI26	838786/013	2014-08-22	2015-08-21					
3m OATS			N/A	2014-08-22	2015-08-21					
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170265	2014-08-22	2015-08-21					
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-631	2014-08-22	2015-08-21					
Power meter	Anritsu	ML2487A	6K00003613	2014-08-22	2015-08-21					
Power sensor	Anritsu	MA2491A	32263	2014-08-22	2015-08-21					
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2014-08-22	2015-08-21					
LISN	AFJ	LS16C	10010947251	2014-08-22	2015-08-21					
LISN (Three Phase)	Schwarebeck	NSLK 8126	8126453	2014-08-22	2015-08-21					
9*6*6 Anechoic			N/A	2014-08-22	2015-08-21					
EMI Test Receiver	RS	ESCS30	100139	2014-08-22	2015-08-21					

Report No: 1409121

Date: 2014-09-22



Page 7 of 101

#### 3. DESCRIPTION OF TEST MODES

#### IEEE 802.11b, 802.11g, 802.11n (HT20) mode

The EUT had been tested under operating condition. There are three channels have been tested as following:

Channel	Frequency (MHz)
Low	2412
Middle	2437
High	2462

IEEE 802.11b mode: 11Mbps data rate (worst case) was chosen for full testing. IEEE 802.11g mode: 54Mbps data rate (worst case) was chosen for full testing. IEEE 802.11n (HT20) mode: 65Mbps data rate (worst case) were chosen for full testing

The worst-case data rates are determined according to the description above, based on the investigations by measuring the PSD and average power across all the data rates, bandwidths, modulations and spatial stream modes.

#### IEEE 802.11n HT40

The EUT had been tested under operating condition. There are three channels have been tested as following:

Channel	Frequency (MHz)
Low	2422
Mid	2437
High	2452

IEEE 802.11n HT40 mode: 65Mbps data rate (worst case) was chosen for full testing.

The worst-case data rates are determined according to the description above, based on the investigations by measuring the PSD and average power across all the data rates, bandwidths, modulations and spatial stream modes.

Report No: 1409121 Page 8 of 101

Date: 2014-09-22



#### 3.0 **Technical Details**

#### 3.1 **Summary of test results**

Standard	Test Type	Result	Notes
CCC Part 15, Paragraph 15.107 & 15.207	Conducted Emission Test	PASS	Complies
FCC Part 15 Subpart C Paragraph 15.247(a)(2) Limit	Spectrum bandwidth of a Orthogonal Frequency Division Multiplex System Limit: 6dB	PASS	Complies
FCC Part 15, Paragraph 15.247(b)	bandwidth>500kHz  Maximum peak output  power  Limit: max. 30dBm	PASS	Complies
FCC Part 15, Paragraph 15.109,15.205 & 15.209	Transmitter Radiated Emission Limit: Table 15.209	PASS	Complies
FCC Part 15, Paragraph 15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Complies
FCC Part 15, Paragraph 15.247(d)	Out of Band Emission and Restricted Band Radiation Limit: 20dB less than peak value of fundamental frequency Restricted band limit: Table 15.209	PASS	Complies

#### 3.2 **Test Standards**

FCC Part 15 Subpart & Subpart C, Paragraph 15.247

#### **EUT Modification** 4.0

No modification by Shenzhen Timeway Technology Consulting Co., Ltd

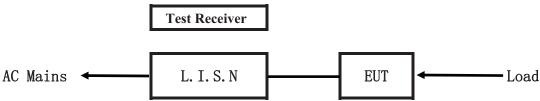
Page 9 of 101

Report No: 1409121 Date: 2014-09-22



#### 5. Power Line Conducted Emission Test

#### 5.1 Schematics of the test

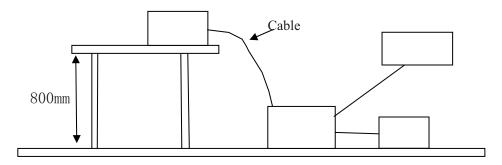


**EUT: Equipment Under Test** 

#### 5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.4-2003. The Frequency spectrum From 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.4 –2003.

Test Voltage: 120V~, 60Hz Block diagram of Test setup



# 5.3 Configuration of The EUT

The EUT was configured according to ANSI C63.4-2003. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

#### A. EUT

Device	Manufacturer	Model	FCC ID
MID	Jiuzhou Group Holdings Limited-digital Dept	PLT1052(512-8GB)	2AC6XPLT1052

#### B. Internal Device

Device	Manufacturer	Model	FCC ID/DOC
N/A			

#### C. Peripherals

Device	Manufacturer	Model FCC ID/DOC		Cable

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co.,Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co.,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co.,Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

Report No: 1409121 Page 10 of 101

Date: 2014-09-22



# 5.4 EUT Operating Condition

Operating condition is according to ANSI C63.4 -2003.

- A Setup the EUT and simulators as shown on follow
- B Enable AF signal and confirm EUT active to normal condition

## 5.5 Power line conducted Emission Limit according to Paragraph 15.207 and 15.107 and RSS-210

Frequency	Class A Lim	its (dB µ V)	Class B Limits (dB µ V)		
(MHz)	Quasi-peak Level	Average Level	Quasi-peak Level	Average Level	
$0.15 \sim 0.50$	79.0	66.0	66.0~56.0*	56.0~46.0*	
$0.50 \sim 5.00$	73.0	60.0	56.0	46.0	
5.00 ~ 30.00	73.0	60.0	60.0	50.0	

Notes:

- 1. \*Decreasing linearly with logarithm of frequency.
- 2. The tighter limit shall apply at the transition frequencies

# 5.6 Test Results

The frequency spectrum from 0.15MHz to 30MHz was investigated. All reading are quasi-peak values with a resolution bandwidth of 9kHz.

Report No: 1409121 Date: 2014-09-22



## A: Conducted Emission on Live Terminal (150kHz to 30MHz)

**EUT Operating Environment** 

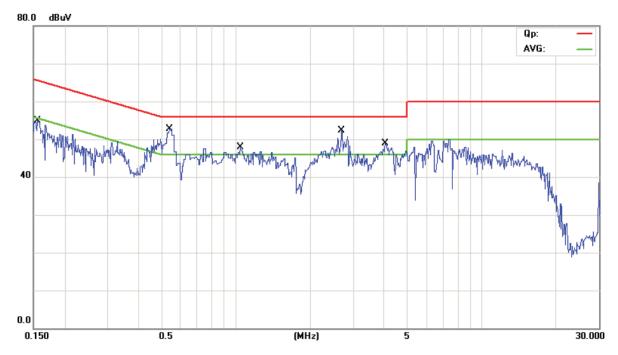
Temperature: 26°C Humidity: 65%RH Atmospheric Pressure: 101 KPa

**EUT set Condition: Charging and Keep WIFI Transmitting** 

**Equipment Level: Class B** 

**Results: PASS** 

Please refer to following diagram for individual



No. M	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0.5422	37.20	11.42	48.62	56.00	-7.38	QP	
2	0.5422	22.20	11.42	33.62	46.00	-12.38	AVG	
3	1.0470	29.10	11.92	41.02	56.00	-14.98	QP	
4	1.0470	13.80	11.92	25.72	46.00	-20.28	AVG	
5	2.6910	35.30	12.58	47.88	56.00	-8.12	QP	
6	2.6910	19.70	12.58	32.28	46.00	-13.72	AVG	
7	0.1560	37.50	11.01	48.51	65.67	-17.16	QP	
8	0.1560	12.90	11.01	23.91	55.67	-31.76	AVG	
9	4.0575	30.60	13.12	43.72	56.00	-12.28	QP	
10	4.0575	12.50	13.12	25.62	46.00	-20.38	AVG	

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co.,Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co.,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co.,Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

Report No: 1409121 Date: 2014-09-22



## B: Conducted Emission on Neutral Terminal (150kHz to 30MHz)

# **EUT Operating Environment**

Temperature: 26°C Humidity: 65%RH Atmospheric Pressure: 101 KPa

**EUT set Condition: Charging and Keep WIFI Transmitting** 

**Equipment Level: Class B** 

**Results: Pass** 

Please refer to following diagram for individual

						Qp: AVG:	_
M. W. Harrison	work, when	v/M	- Many Many Marie	FVX WWY		NAMA MANA KANDANA MANA MANA MANA MANA MANA MANA MAN	ll more della
.150		0.5	(MHz)		5		30.

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0.1543	46.60	11.00	57.60	65.77	-8.17	QP	
2	0.1543	6.50	11.00	17.50	55.77	-38.27	AVG	
3	0.2746	30.30	11.13	41.43	60.98	-19.55	QP	
4	0.2746	2.40	11.13	13.53	50.98	-37.45	AVG	
5	0.5298	33.10	11.40	44.50	56.00	-11.50	QP	
6	0.5298	19.70	11.40	31.10	46.00	-14.90	AVG	
7	2.6481	32.20	12.56	44.76	56.00	-11.24	QP	
8	2.6481	16.70	12.56	29.26	46.00	-16.74	AVG	
9	3.0147	26.00	12.71	38.71	56.00	-17.29	QP	
10	3.0147	11.80	12.71	24.51	46.00	-21.49	AVG	

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co.,Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co.,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co.,Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

Report No: 1409121 Page 13 of 101

Date: 2014-09-22



#### 6 Radiated Emission Test

- 6.1 Test Method and test Procedure:
- (1) The EUT was tested according to ANSI C63.4 –2003. The radiated test was performed at Timeway Laboratory. This site is on file with the FCC laboratory division, Registration No.899988
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.4-2003.
- (3) The frequency spectrum from 30 MHz to 25 GHz was investigated. All readings from 30 MHz to 1 GHz are Quasi-peak values with a resolution bandwidth of 120 kHz. For measurement above 1GHz, peak values with RBW=VBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=3MHz and RMS detector. Measurements were made at 3 meters.
- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limit), and are distinguished with a "QP" in the data table.
- (6) The antenna polarization: Vertical polarization and Horizontal polarization.

# Block diagram of Test setup Distance = 3m Computer Pre – Amplifier EUT Turn-table Receiver

- 6.2 Configuration of The EUT

  Same as section 5.3 of this report
- 6.3 EUT Operating Condition
  Same as section 5.4 of this report.

Report No: 1409121 Page 14 of 101
Date: 2014-09-22



#### 6.4 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

#### Frequencies in restricted band are complied to limit on Paragraph 15.209 and 15.109 and RSS-210

Frequency Range (MHz)	Distance (m)	Field strength (dB µ V/m)
30-88	3	40.0
88-216	3	43.5
216-960	3	46.0
Above 960	3	54.0

Note:

- 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
- 2. In the Above Table, the higher limit applies at the band edges.
- 3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT
- 4. This is a handhold device. The radiated emissions should be tested under 3-axes position (Lying, Side, and Stand), After pre-test. It was found that the worse radiated emission was get at the lying position.

Report No: 1409121 Page 15 of 101



#### Test result

Date: 2014-09-22

#### General Radiated Emission Data and Harmonics Radiated Emission Data

Radiated Emission In Horizontal (30MHz----1000MHz)

**EUT set Condition:** Charging and Keep WIFI Transmitting

Results: Pass

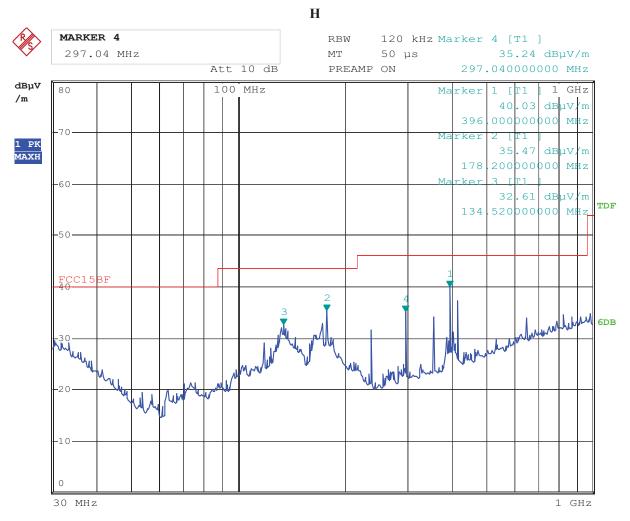
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB \u03b4 V/m)
297.040	35.24	Н	46.00
396.000	40.03	Н	46.00
178.200	35.47	Н	43.50
134.520	32.61	Н	43.50
36.240	32.64	V	40.00
396.000	38.07	V	46.00
178.240	33.86	V	43.50
139.440	31.05	V	43.50

Report No: 1409121 Page 16 of 101

Date: 2014-09-22



#### Test Figure:

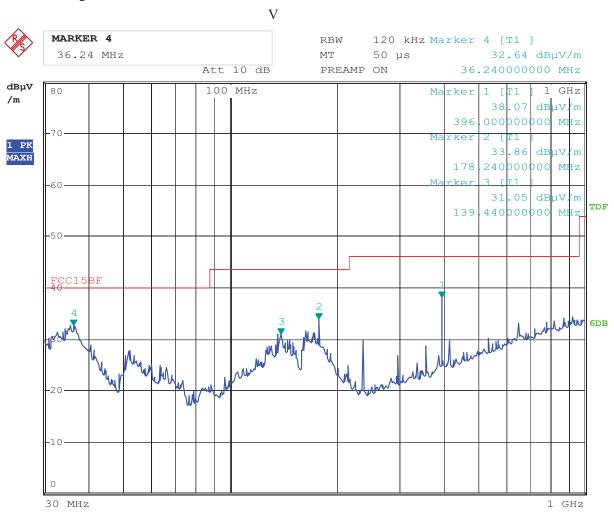


Date: 18.SEP.2014 16:58:30

Report No: 1409121 Page 17 of 101
Date: 2014-09-22



#### Test Figure:



Date: 18.SEP.2014 17:02:20

Report No: 1409121 Page 18 of 101

Date: 2014-09-22



## Operation Mode: Transmitting under CH01 for 11g at 54Mbps

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4824.00	48.28 (PK)	Н	74(Peak)/ 54(AV)
4824.00	48.32 (PK)	V	74(Peak)/ 54(AV)
7236.00		H/V	74(Peak)/ 54(AV)
9648.00		H/V	74(Peak)/ 54(AV)
12060		H/V	74(Peak)/ 54(AV)
14472		H/V	74(Peak)/ 54(AV)
16884		H/V	74(Peak)/ 54(AV)
19296	-	H/V	74(Peak)/ 54(AV)
21708		H/V	74(Peak)/ 54(AV)
24120		H/V	74(Peak)/ 54(AV)

- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11g mode 54Mbps

Report No: 1409121 Page 19 of 101

Date: 2014-09-22



## Operation Mode: Transmitting under CH06 for 11g at 54Mbps

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \u03b4 V/m)
4874.00	48.15 (PK)	V	74(Peak)/ 54(AV)
4874.00	50.20 (PK)	Н	74(Peak)/ 54(AV)
7311.00		H/V	74(Peak)/ 54(AV)
9748.00		H/V	74(Peak)/ 54(AV)
12185		H/V	74(Peak)/ 54(AV)
14622		H/V	74(Peak)/ 54(AV)
17059		H/V	74(Peak)/ 54(AV)
19496		H/V	74(Peak)/ 54(AV)
21933		H/V	74(Peak)/ 54(AV)
24370		H/V	74(Peak)/ 54(AV)

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11g mode 54 Mbps

# Operation Mode: Transmitting under CH11 for 11g at 54Mbps

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \mu V/m)
4924	48.08 (PK)	Н	74(Peak)/ 54(AV)
4924	48.64 (PK)	V	74(Peak)/ 54(AV)
7368		H/V	74(Peak)/ 54(AV)
9848		H/V	74(Peak)/ 54(AV)
12310	-1	H/V	74(Peak)/ 54(AV)
14772	-	H/V	74(Peak)/ 54(AV)
17234	-	H/V	74(Peak)/ 54(AV)
19696		H/V	74(Peak)/ 54(AV)
22158		H/V	74(Peak)/ 54(AV)
24650		H/V	74(Peak)/ 54(AV)

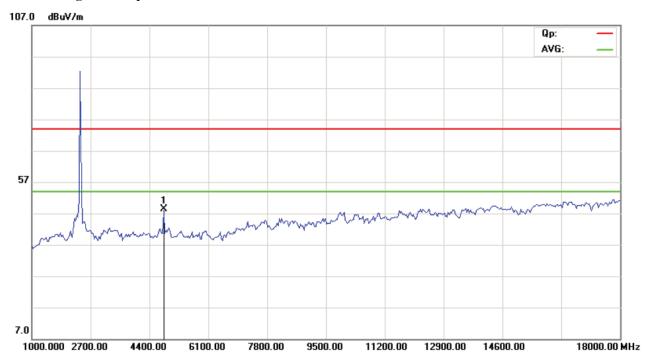
- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11g mode at 54 Mbps

Report No: 1409121 Date: 2014-09-22

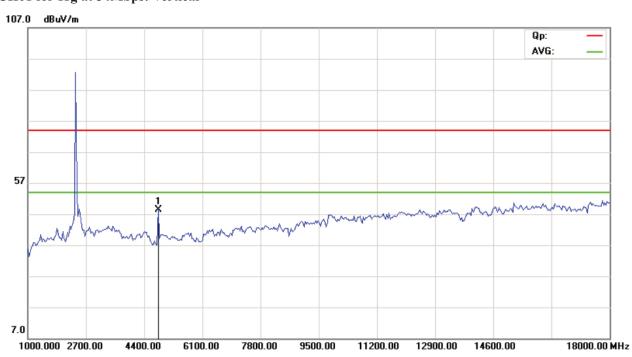


Please refer to the following test plots for details:

## CH01 for 11g at 54Mbps: Horizontal



## CH01 for 11g at 54Mbps: Vertical



The report refers only to the sample tested and does not apply to the bulk.

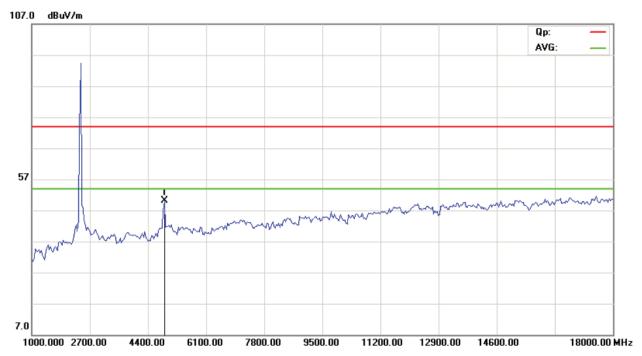
This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co.,Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co.,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co.,Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

Page 21 of 101

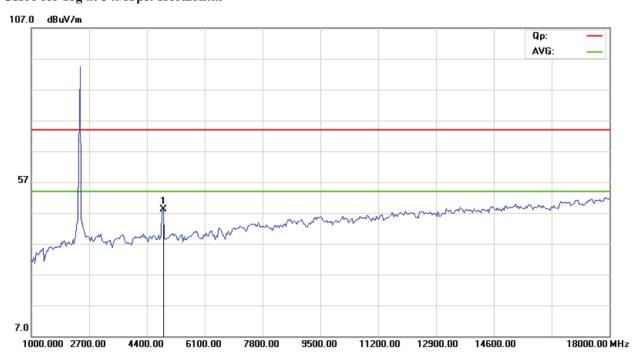
Report No: 1409121 Date: 2014-09-22



# CH06 for 11g at 54Mbps: Vertical



## CH06 for 11g at 54Mbps: Horizontal



The report refers only to the sample tested and does not apply to the bulk.

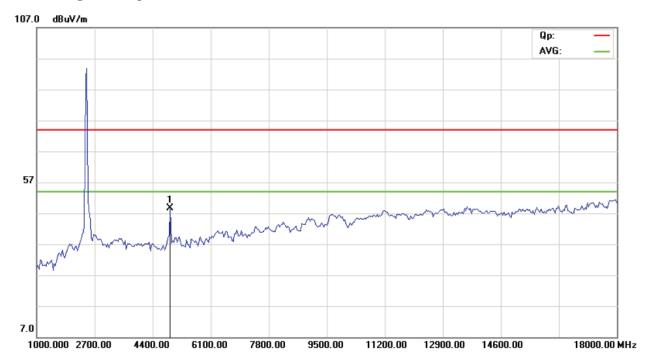
This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co.,Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co.,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co.,Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting co.,Ltd reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

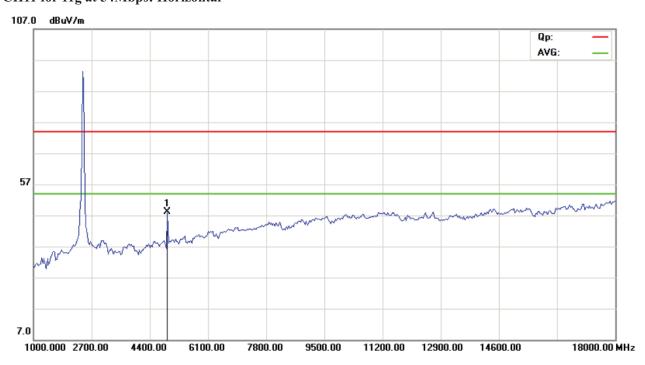
Report No: 1409121 Date: 2014-09-22



## CH11 for 11g at 54Mbps: Vertical



# CH11 for 11g at 54Mbps: Horizontal



Note: For radiated Emissions from 18-25GHz, it is only the floor noise.

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co.,Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co.,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co.,Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting co.,Ltd reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Report No: 1409121 Page 23 of 101

Date: 2014-09-22

## Operation Mode: Transmitting under CH01 for 11b at 11Mbps

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \( \mu \)V/m)
4824.00	46.82 (PK)	Н	74(Peak)/ 54(AV)
4824.00	48.59 (PK)	V	74(Peak)/ 54(AV)
7236.00		H/V	74(Peak)/ 54(AV)
9648.00		H/V	74(Peak)/ 54(AV)
12060		H/V	74(Peak)/ 54(AV)
14472		H/V	74(Peak)/ 54(AV)
16684		H/V	74(Peak)/ 54(AV)
19296		H/V	74(Peak)/ 54(AV)
21708		H/V	74(Peak)/ 54(AV)
24120		H/V	74(Peak)/ 54(AV)

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11b mode 11Mbps

# Operation Mode: Transmitting under CH06 for 11b at 11Mbps

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \u03b4 V/m)
4874.00	47.51 (PK)	Н	74(Peak)/ 54(AV)
4874.00	48.58 (PK)	V	74(Peak)/ 54(AV)
7311.00	-	H/V	74(Peak)/ 54(AV)
9748.00	-	H/V	74(Peak)/ 54(AV)
12185		H/V	74(Peak)/ 54(AV)
14622		H/V	74(Peak)/ 54(AV)
17059		H/V	74(Peak)/ 54(AV)
19496		H/V	74(Peak)/ 54(AV)
21933		H/V	74(Peak)/ 54(AV)
24370		H/V	74(Peak)/ 54(AV)

- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11b mode 11Mbps

Report No: 1409121 Page 24 of 101

Date: 2014-09-22



## Operation Mode: Transmitting under CH11 for 11b at 11Mbps

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \( \mu \)V/m)
4924	47.79 (PK)	Н	74(Peak)/ 54(AV)
4924	49.13 (PK)	V	74(Peak)/ 54(AV)
7368		H/V	74(Peak)/ 54(AV)
9848		H/V	74(Peak)/ 54(AV)
12310		H/V	74(Peak)/ 54(AV)
14772		H/V	74(Peak)/ 54(AV)
17234		H/V	74(Peak)/ 54(AV)
19696		H/V	74(Peak)/ 54(AV)
22158		H/V	74(Peak)/ 54(AV)
24650		H/V	74(Peak)/ 54(AV)

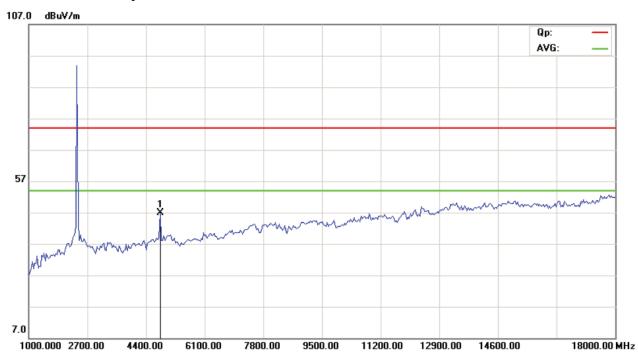
- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11b mode at 11Mbps

Report No: 1409121 Date: 2014-09-22

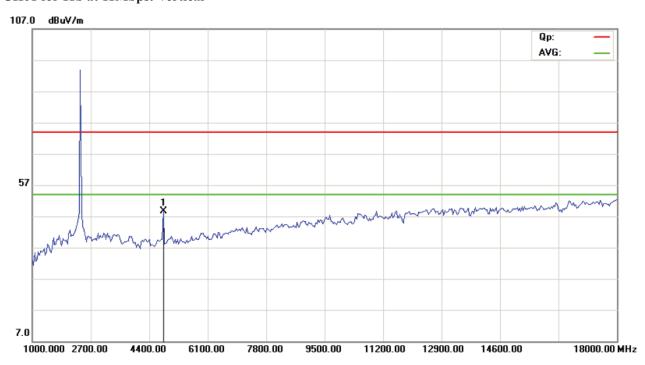


Please refer to the following test plots for details:

## CH01 for 11b at 11Mbps: Horizontal



## CH01 for 11b at 11Mbps: Vertical



The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co.,Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co.,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co.,Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

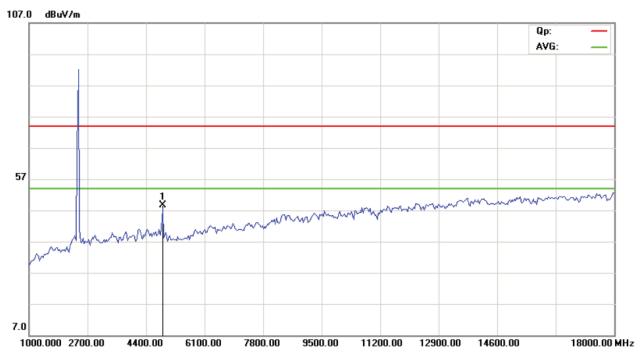
In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting co.,Ltd reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Page 26 of 101

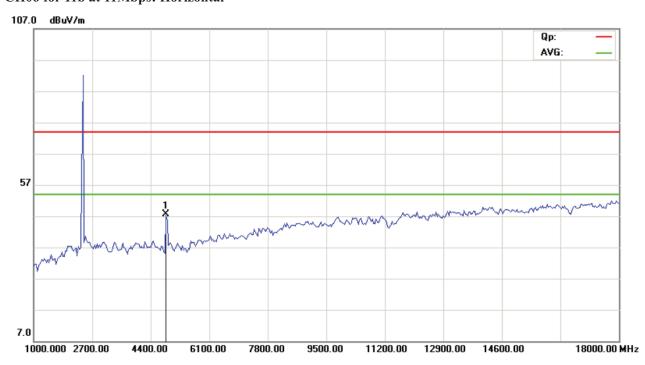
Report No: 1409121 Date: 2014-09-22



# CH06 for 11b at 11Mbps: Vertical



# CH06 for 11b at 11Mbps: Horizontal



The report refers only to the sample tested and does not apply to the bulk.

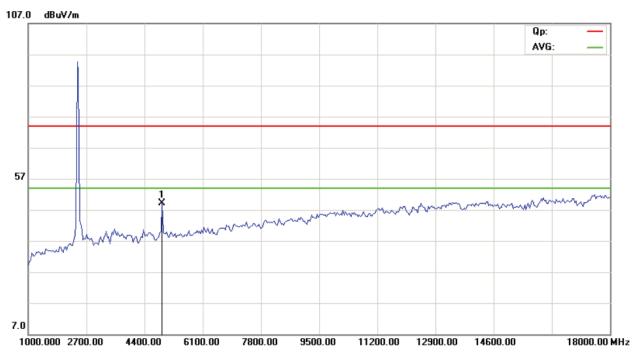
This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co.,Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co.,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co.,Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

Page 27 of 101

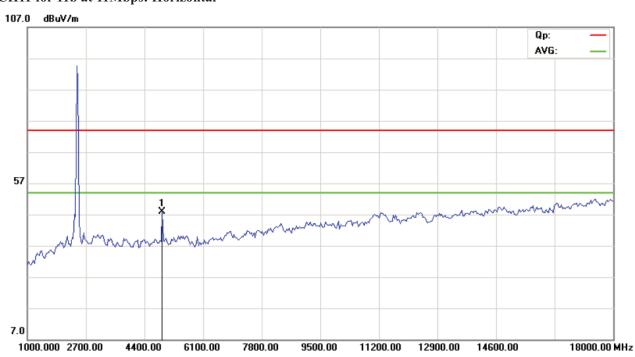
Report No: 1409121 Date: 2014-09-22



# CH11 for 11b at 11Mbps: Vertical



# CH11 for 11b at 11Mbps: Horizontal



Note: For radiated Emissions from 18-25GHz, it is only the floor noise.

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co.,Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co.,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co.,Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting co.,Ltd reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Report No: 1409121 Page 28 of 101

Date: 2014-09-22



## Operation Mode: Transmitting under CH01 for 11n HT20 at 65Mbps

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4824.00	48.35 (PK)	Н	74(Peak)/ 54(AV)
4824.00	48.09 (PK)	V	74(Peak)/ 54(AV)
7236.00	-	H/V	74(Peak)/ 54(AV)
9648.00		H/V	74(Peak)/ 54(AV)
12060		H/V	74(Peak)/ 54(AV)
14472		H/V	74(Peak)/ 54(AV)
16684		H/V	74(Peak)/ 54(AV)
19296	-	H/V	74(Peak)/ 54(AV)
21708		H/V	74(Peak)/ 54(AV)
24120		H/V	74(Peak)/ 54(AV)

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11n (HT20) mode 65Mbps

## Operation Mode: Transmitting under CH06 for 11n HT20 at 65Mbps

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4874.00	48.54 (PK)	Н	74(Peak)/ 54(AV)
4874.00	48.19 (PK)	V	74(Peak)/ 54(AV)
7311.00	-	H/V	74(Peak)/ 54(AV)
9748.00	-	H/V	74(Peak)/ 54(AV)
12185		H/V	74(Peak)/ 54(AV)
14622		H/V	74(Peak)/ 54(AV)
17059	-	H/V	74(Peak)/ 54(AV)
19496		H/V	74(Peak)/ 54(AV)
21933		H/V	74(Peak)/ 54(AV)
24370		H/V	74(Peak)/ 54(AV)

- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11n (HT20) mode 65Mbps

Report No: 1409121 Page 29 of 101

Date: 2014-09-22



## Operation Mode: Transmitting under CH11 for 11n HT20 at 65Mbps

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4924	47.19 (PK)	Н	74(Peak)/ 54(AV)
4924	46.64 (PK)	V	74(Peak)/ 54(AV)
7368	-	H/V	74(Peak)/ 54(AV)
9848	-	H/V	74(Peak)/ 54(AV)
12310		H/V	74(Peak)/ 54(AV)
14772		H/V	74(Peak)/ 54(AV)
17234		H/V	74(Peak)/ 54(AV)
19696	-	H/V	74(Peak)/ 54(AV)
22158		H/V	74(Peak)/ 54(AV)
24650		H/V	74(Peak)/ 54(AV)

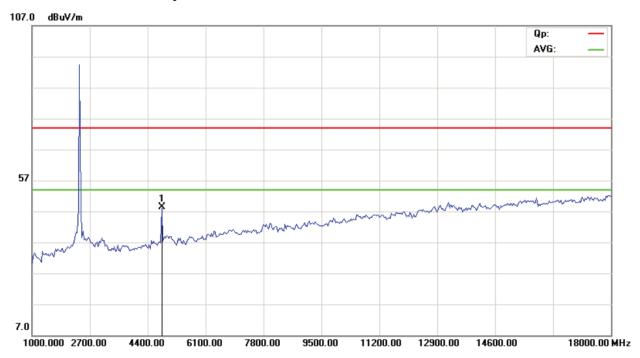
- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11n (HT20) mode 65Mbps

Report No: 1409121 Date: 2014-09-22

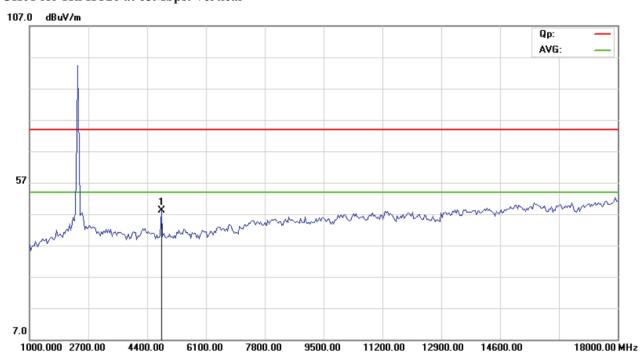


Please refer to the following test plots for details:

## CH01 for 11n HT20 at 65Mbps: Horizontal



## CH01 for 11n HT20 at 65Mbps: Vertical



The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co.,Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co.,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co.,Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

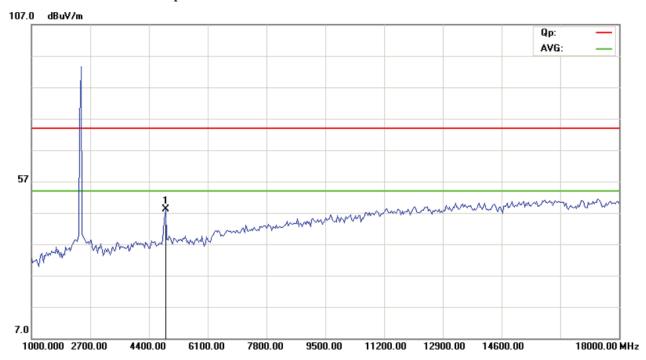
In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting co.,Ltd reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Page 31 of 101

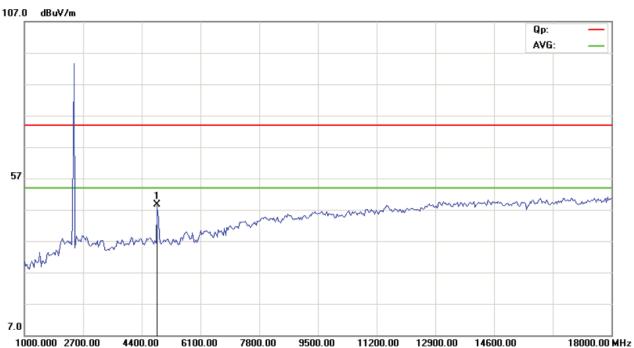
Report No: 1409121 Date: 2014-09-22



## CH06 for 11n HT20 at 65Mbps: Vertical



#### CH06 for 11n HT20 at 65Mbps: Horizontal

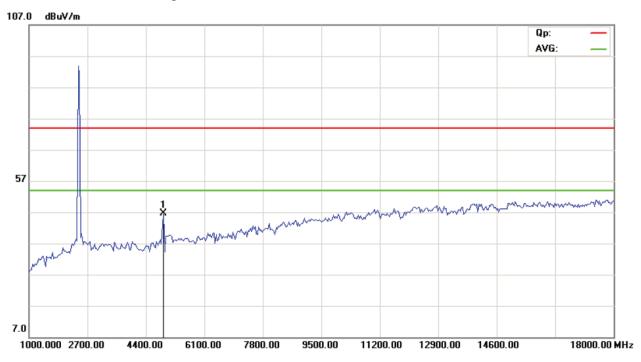


Page 32 of 101

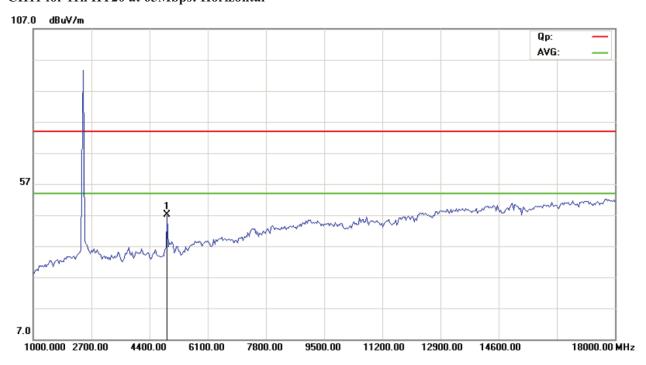
Report No: 1409121 Date: 2014-09-22



# CH11 for 11n HT20 at 65Mbps: Vertical



# CH11 for 11n HT20 at 65Mbps: Horizontal



Note: For radiated Emissions from 18-25GHz, it is only the floor noise.

Report No: 1409121 Page 33 of 101

Date: 2014-09-22



## Operation Mode: Transmitting under CH01 for 11n HT40 at 65Mbps

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4844.00	47.51 (PK)	Н	74(Peak)/ 54(AV)
4844.00	47.77 (PK)	V	74(Peak)/ 54(AV)
7266.00		H/V	74(Peak)/ 54(AV)
9688.00		H/V	74(Peak)/ 54(AV)
12110		H/V	74(Peak)/ 54(AV)
14532		H/V	74(Peak)/ 54(AV)
16954		H/V	74(Peak)/ 54(AV)
19376	-	H/V	74(Peak)/ 54(AV)
21798		H/V	74(Peak)/ 54(AV)
24220		H/V	74(Peak)/ 54(AV)

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11n (HT40) mode 65Mbps

# Operation Mode: Transmitting under CH04 for 11n HT40 at 65Mbps

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \u03b4 V/m)
4874.00	49.16 (PK)	Н	74(Peak)/ 54(AV)
4874.00	48.53 (PK)	V	74(Peak)/ 54(AV)
7311.00	-	H/V	74(Peak)/ 54(AV)
9748.00	-	H/V	74(Peak)/ 54(AV)
12185		H/V	74(Peak)/ 54(AV)
14622		H/V	74(Peak)/ 54(AV)
17059	-	H/V	74(Peak)/ 54(AV)
19496		H/V	74(Peak)/ 54(AV)
21933		H/V	74(Peak)/ 54(AV)
24370		H/V	74(Peak)/ 54(AV)

- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11n (HT40) mode 65Mbps

Report No: 1409121 Page 34 of 101

Date: 2014-09-22



## Operation Mode: Transmitting under CH07 for 11n HT40 at 65Mbps

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \u03b4 V/m)
4904	48.23 (PK)	Н	74(Peak)/ 54(AV)
4904	48.58 (PK)	V	74(Peak)/ 54(AV)
7356		H/V	74(Peak)/ 54(AV)
9808		H/V	74(Peak)/ 54(AV)
12260		H/V	74(Peak)/ 54(AV)
14712		H/V	74(Peak)/ 54(AV)
17164		H/V	74(Peak)/ 54(AV)
19616		H/V	74(Peak)/ 54(AV)
22068		H/V	74(Peak)/ 54(AV)
24520		H/V	74(Peak)/ 54(AV)

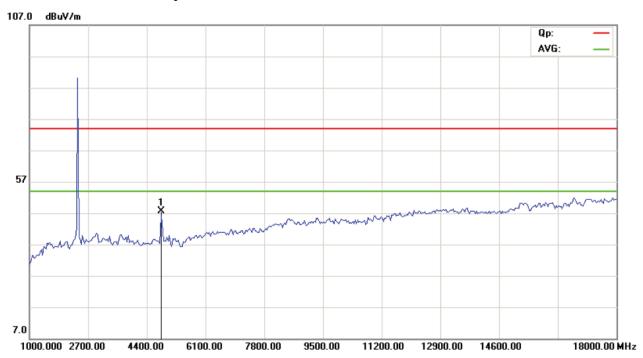
- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11n (HT40) mode 65Mbps

Report No: 1409121 Date: 2014-09-22

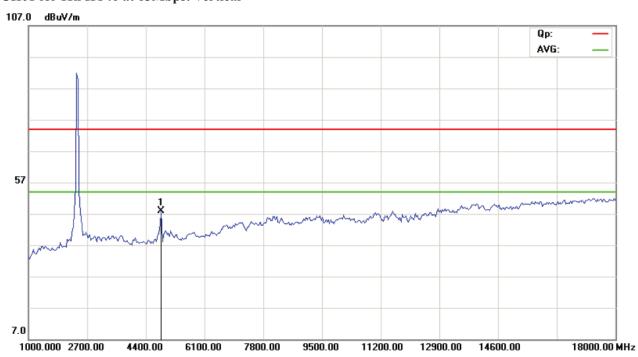


Please refer to the following test plots for details:

## CH01 for 11n HT40 at 65Mbps: Horizontal



#### CH01 for 11n HT40 at 65Mbps: Vertical



The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co.,Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co.,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co.,Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

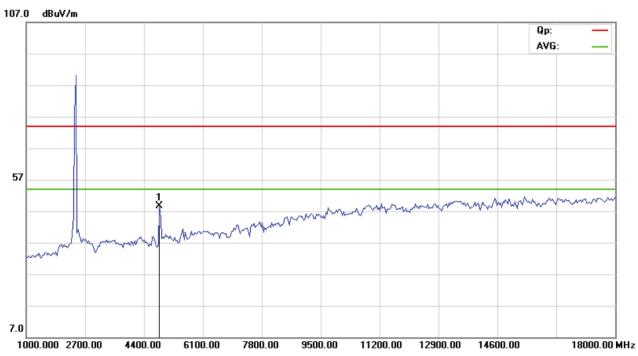
In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting co.,Ltd reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Page 36 of 101

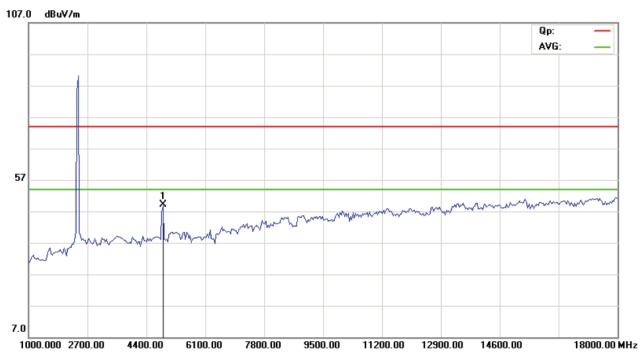
Report No: 1409121 Date: 2014-09-22



# CH04 for 11n HT40 at 65Mbps: Vertical



#### CH04 for 11n HT40 at 65Mbps: Horizontal



The report refers only to the sample tested and does not apply to the bulk.

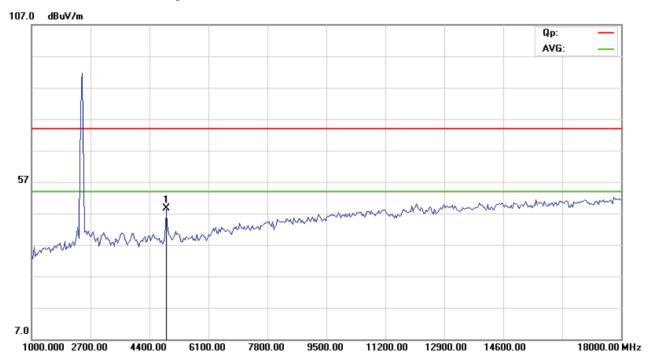
This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co.,Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co.,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co.,Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

Page 37 of 101

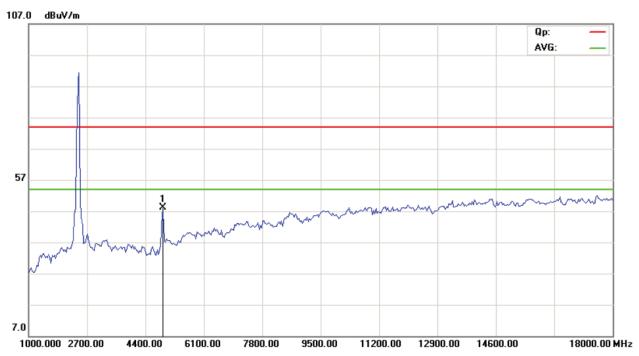
Report No: 1409121 Date: 2014-09-22



## CH07 for 11n HT40 at 65Mbps: Vertical



### CH07 for 11n HT40 at 65Mbps: Horizontal



Note: For radiated Emissions from 18-25GHz, it is only the floor noise.

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co.,Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co.,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co.,Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting co.,Ltd reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

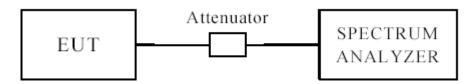
Report No: 1409121 Page 38 of 101

Date: 2014-09-22



### 7.0 6dB Bandwidth Measurement

## 7.1 Test Setup



#### 7.2 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is >500 kHz

#### 7.3 Test Procedure

- 1. Set resolution bandwidth (RBW) = 100 kHz
- 2. Set the video bandwidth (VBW)  $\geq$  3 x RBW.
- 3. Detector = Peak.
- 4. Trace mode = max hold.
- 5. Sweep = auto couple.
- 6. Allow the trace to stabilize.
- 7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

### 7.4 Test Result

Report No: 1409121 Page 39 of 101

Date: 2014-09-22



## 6dB Occupied Bandwidth

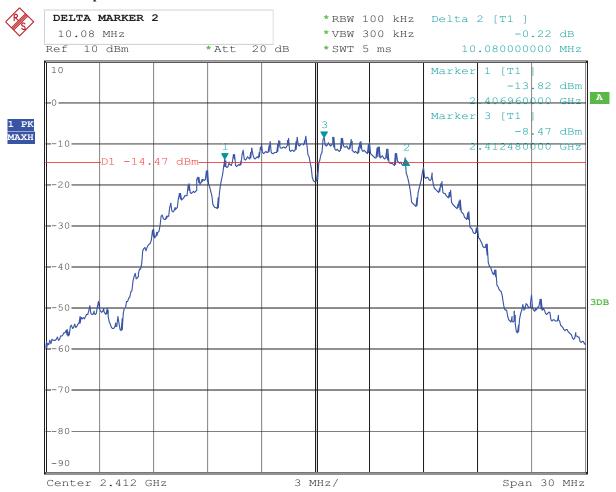
EUT			MID		Model		PLT1052	2 (512-8GB)
Mode		8	302.11b		Input Vol	tage	AC	C120V
Temperati	erature 24 deg. C, Humidity		,	56	% RH			
Channel		Data Transfer 6 dB Bandw (MHz) Rate (MHz) (Mbps)				mum Limit MHz)	Pass/ Fail	
1		2412	1	10.08		0.5		Pass
6		2437	1	10	.08	0.5		Pass
11		2462	1	10	.08		0.5	Pass
1		2412	11	9.	9.30		0.5	Pass
6		2437	11	9.30			0.5	Pass
11		2462	11	9.30			0.5	Pass

Report No: 1409121 Page 40 of 101

Date: 2014-09-22



## 1. 802.11b at 1Mbps of CH01



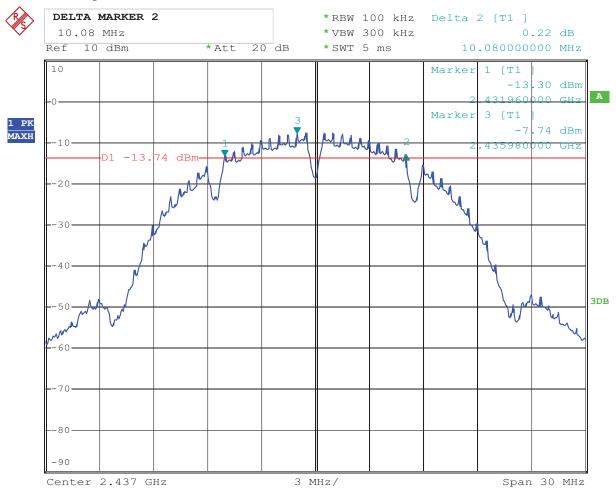
Date: 15.SEP.2014 15:16:34

Report No: 1409121 Page 41 of 101

Date: 2014-09-22



## 2. 802.11b at 1Mbps of CH06



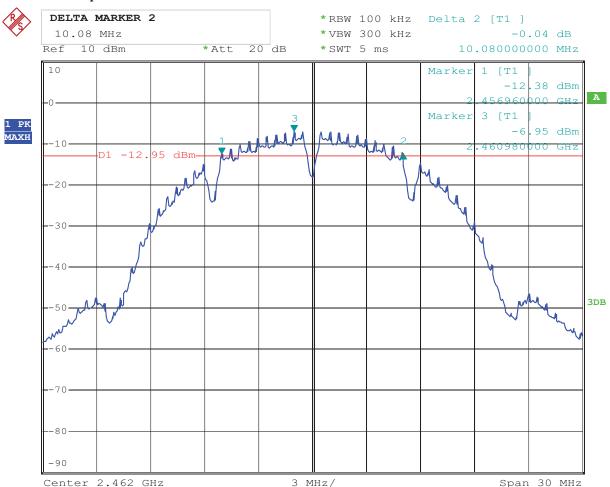
Date: 15.SEP.2014 15:38:31

Report No: 1409121 Page 42 of 101

Date: 2014-09-22



## 3. 802.11b at 1Mbps of CH11



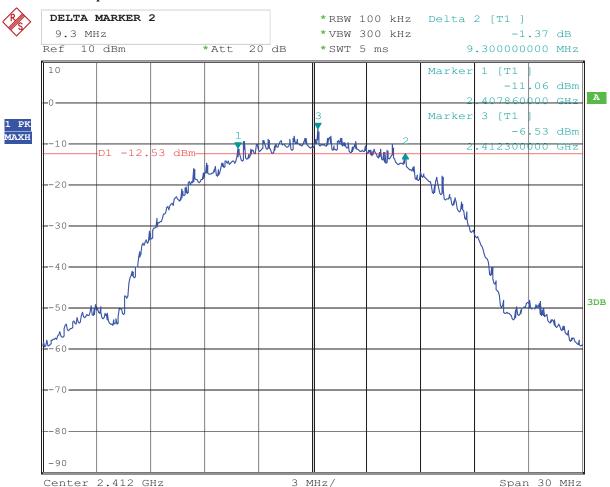
Date: 15.SEP.2014 15:47:21

Report No: 1409121 Page 43 of 101

TIMEWAY HESTING LABS

## 4. 802.11b at 11Mbps of CH01

Date: 2014-09-22

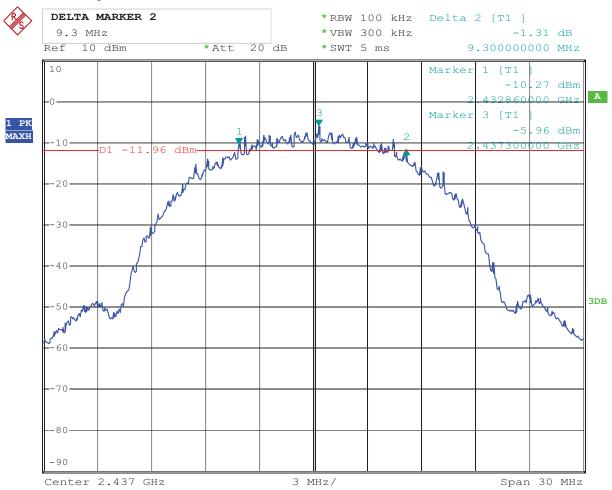


Date: 15.SEP.2014 15:25:08

Report No: 1409121 Page 44 of 101

Date: 2014-09-22

## 5. 802.11b at 11Mbps of CH06



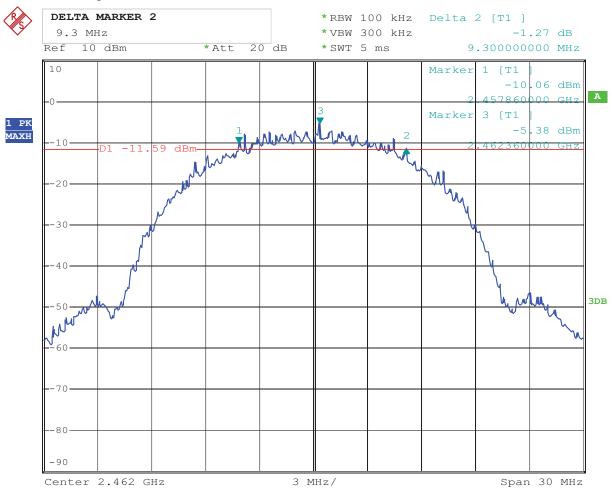
15.SEP.2014 15:26:55 Date:

Report No: 1409121 Page 45 of 101

Date: 2014-09-22



## 6. 802.11b at 11Mbps of CH11



Date: 15.SEP.2014 15:55:48

Report No: 1409121 Page 46 of 101

Date: 2014-09-22



## 6dB Occupied Bandwidth

EUT			MID		Model		PLT10:	52 (512-8GB)
Mode		8	302.11g		Input Vol	tage	A	.C120V
Temperat	ure	24	4 deg. C,		Humidity	,	5	6% RH
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)		andwidth Hz)		mum Limit MHz)	Pass/ Fail
1		2412	54	16	3.38		0.5	Pass
6		2437	54	16	.38	0.5		Pass
11		2462	54	16	.38		0.5	Pass

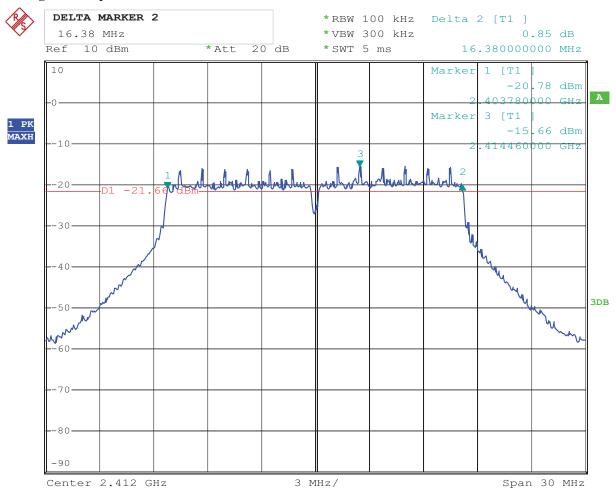
Report No: 1409121 Page 47 of 101

Date: 2014-09-22



### **Test Plots:**

## 1. 802.11g at 54Mbps of CH01



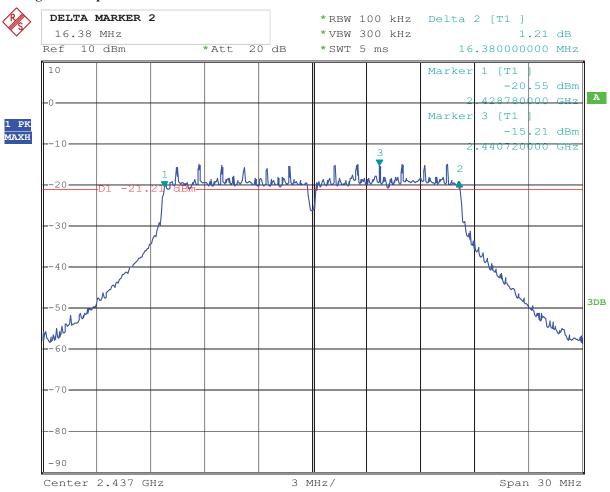
Date: 15.SEP.2014 15:18:07

Report No: 1409121 Page 48 of 101

Date: 2014-09-22



## 2. 802.11g at 54Mbps of CH06



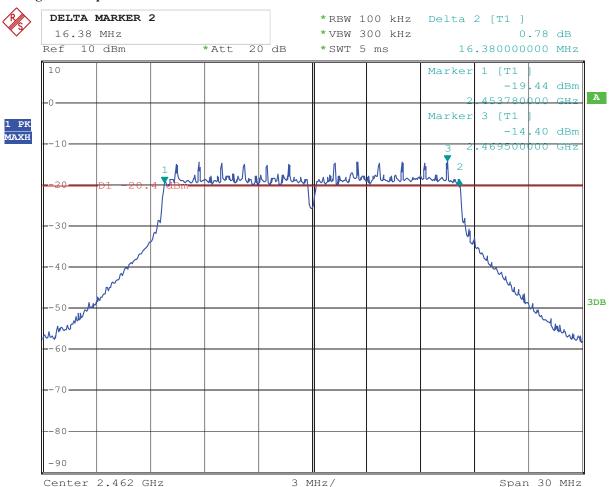
Date: 15.SEP.2014 15:35:28

Report No: 1409121 Page 49 of 101

Date: 2014-09-22



## 3. 802.11g at 54Mbps of CH11



Date: 15.SEP.2014 15:48:36

Report No: 1409121 Page 50 of 101

Date: 2014-09-22



## 6dB Occupied Bandwidth

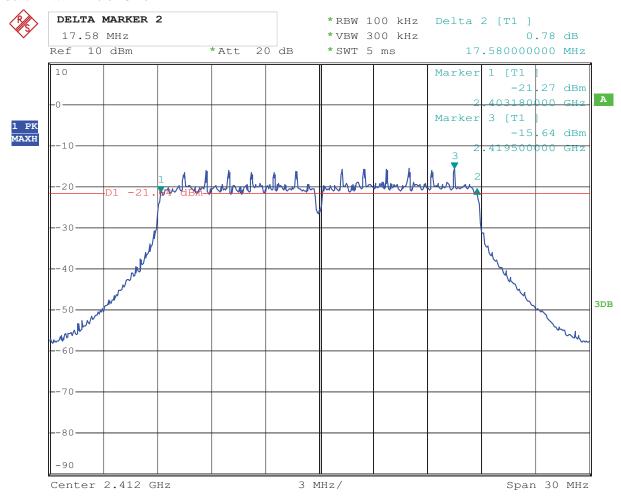
EUT			MID	Model		PLT1052 (5	12-8GB)
Mode		802.1	11n HT20	Input Voltag	ge	AC12	0V
Temperat	ure	24	deg. C,	Humidity		56% 1	RH
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)	 Bandwidth MHz)	N	Minimum Limit (MHz)	Pass/ Fail
1		2412	65M	17.58		0.5	Pass
6		2437	65M	17.58		0.5	Pass
11		2462	65M	17.58		0.5	Pass

Report No: 1409121 Page 51 of 101

Date: 2014-09-22

### **Test Plots:**

### 1. 802.11n at HT20 of CH01



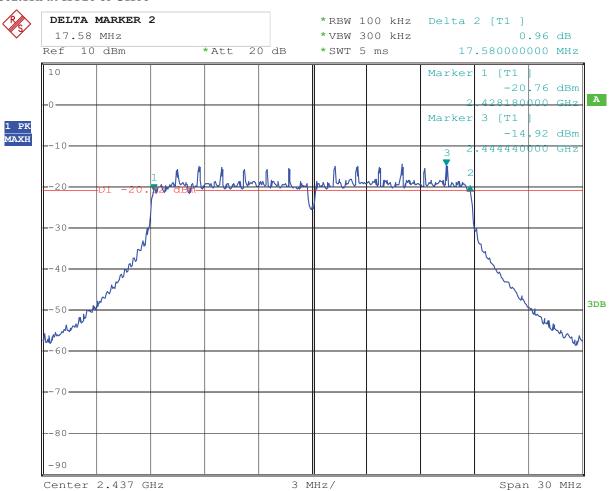
15.SEP.2014 16:07:42 Date:

Report No: 1409121 Page 52 of 101

Date: 2014-09-22



### 2. 802.11n at HT20 of CH06

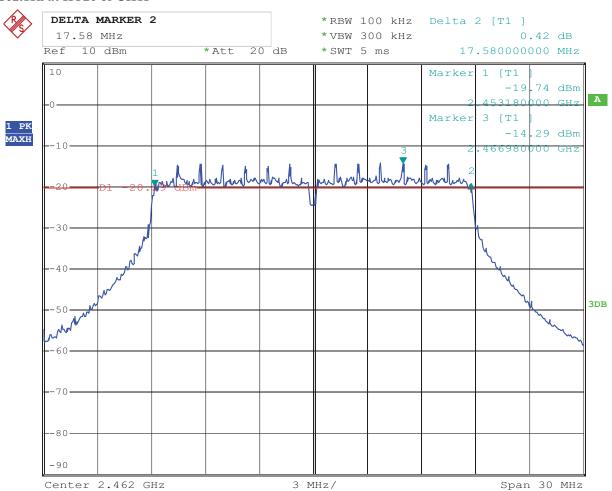


Date: 15.SEP.2014 16:05:28

Report No: 1409121 Page 53 of 101

Date: 2014-09-22

### 3. 802.11n at HT20 of CH11



15.SEP.2014 15:57:07 Date:

Report No: 1409121 Page 54 of 101

Date: 2014-09-22



## 6dB Occupied Bandwidth

EUT			MID		Model		PLT1052 (	512-8GB)
Mode		802	.11n HT40		Input Vol	tage	AC1	20V
Temperat	ure	24	4 deg. C,		Humidity		56%	RH
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)		ndwidth Hz)	Mir	nimum Limit (MHz)	Pass/ Fail
1		2422	65M	35	.38		0.5	Pass
4		2437	65M	35	.38		0.5	Pass
7		2452	65M	35	.38		0.5	Pass

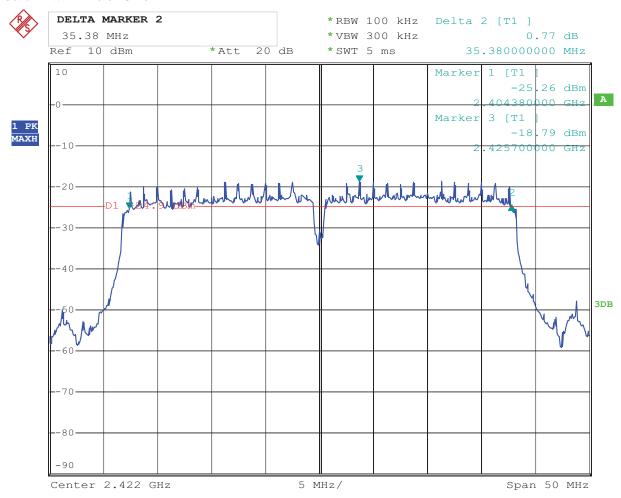
Report No: 1409121 Page 55 of 101

Date: 2014-09-22



### **Test Plots:**

### 1. 802.11n at HT40 of CH01



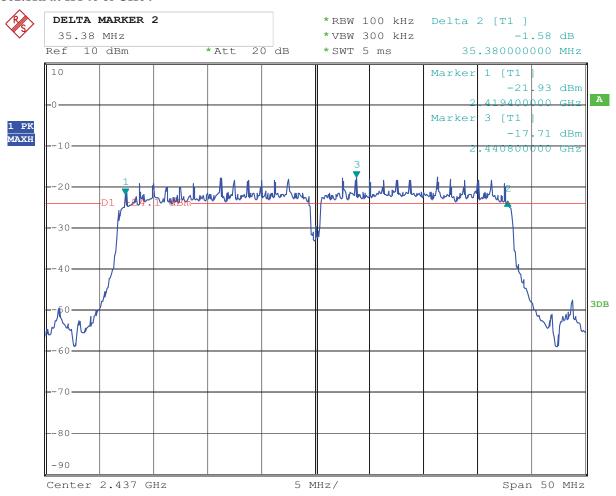
Date: 15.SEP.2014 16:13:44

Report No: 1409121 Page 56 of 101

Date: 2014-09-22



### 2. 802.11n at HT40 of CH04



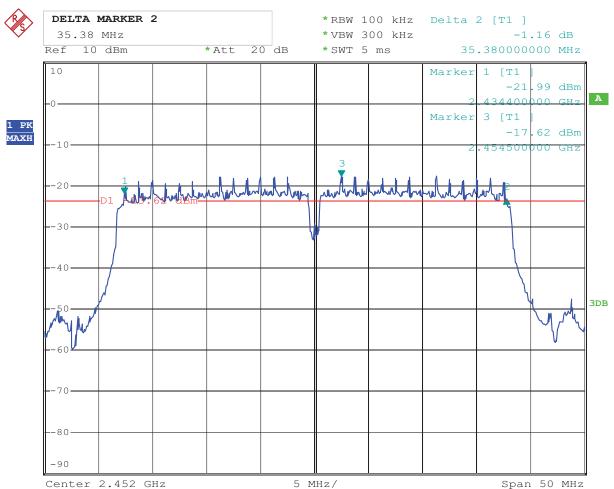
Date: 15.SEP.2014 16:15:36

Report No: 1409121 Page 57 of 101

Date: 2014-09-22



### 3. 802.11n at HT40 of CH07



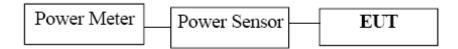
Date: 15.SEP.2014 16:20:24

Report No: 1409121 Page 58 of 101
Date: 2014-09-22



# 8. Maximum Peak Output Power

# 8.1 Test Setup



## 8.2 Limits of Maximum Peak Output Power

The Maximum Peak Output Power Measurement is 30dBm.

### **8.3 Test Procedure**

The RF power output was measured with a Power meter connected to the RF Antenna connector (conducted measurement) while EUT was operating in transmit mode at the appropriate centre frequency.

Note: the peak power was measured

Page 59 of 101

Report No: 1409121 Date: 2014-09-22



### **8.4Test Results**

EUT	EUT MID		D	M	odel	PLT	1052 (512-8GB)	
Mode 802.1		1b Inp		Input Voltage		AC120V		
Temperat	Temperature 24 deg		g. C, Hum		midity		56% RH	
Channel	Channel Frequency (MHz)		Peak Power Output (dBm)		Peak F Lin (dB	nit	Pass/ Fail	
1		2412	6.30		30		Pass	
6	2437		7.46		30		Pass	
11		2462	8.21		30	)	Pass	

Note: 1. At finial test to get the worst-case emission at 11Mbps for CH01, CH06 and CH11

2. The result basic equation calculation as follow:

Peak Power Output = Peak Power Reading + Cable loss + Attenuator

3. The worse case was recorded

EUT	EUT		MID		odel	PLT1	1052 (512-8GB)
Mode 80		802.1	1g	Input Voltage		AC120V	
Temperature		24 deg	g. C,	Humidity			56% RH
Channel	Channel Frequency (MHz)		Peak Power Output (dBm)		Peak Power Limit (dBm)		Pass/ Fail
1	2412		3.65		30		Pass
6	6 2437		4.68		30		Pass
11		2462	5.56		30	)	Pass

Note: 1. At finial test to get the worst-case emission at 54Mbps for CH01, CH06 and CH11

- The result basic equation calculation as follow:
   Peak Power Output = Peak Power Reading + Cable loss + Attenuator
- 3. The worse case was recorded

Report No: 1409121 Page 60 of 101

Date: 2014-09-22



EUT	EUT MID		D	M	odel	PLT	Γ1052 (512-8GB)
Mode	Mode 802.11n		(HT20)	Input Voltage		AC120V	
Temperati	Temperature 24 deg		g. C, Hun		midity		56% RH
Channel	Channel Frequency (MHz)		Peak Power Output (dBm)		Peak P Lin (dB	nit	Pass/ Fail
1		2412	4.26		30		Pass
6		2437	5.15		30		Pass
11		2462	5.90		30	)	Pass

Note: 1. At finial test to get the worst-case emission at 65Mbps of 11n HT20 for CH01, CH06 and CH11

2. The result basic equation calculation as follow:

Peak Power Output = Peak Power Reading + Cable loss + Attenuator

3. The worse case was recorded

EUT		MII	D	M	odel	PLT	1052 (512-8GB)	
Mode 802.11n (		(HT40) Input		Voltage		AC120V		
Temperati	Temperature 24 deg		g. C, Hum		midity		56% RH	
Channel	Channel Frequency (MHz)		Peak Power Output (dBm)		Peak P Lin (dB	nit	Pass/ Fail	
1		2422	4.22		30		Pass	
4	2437		4.73		30		Pass	
7		2452	5.58		30	)	Pass	

Note: 1. At finial test to get the worst-case emission at 65Mbps of 11n HT40 for CH01, CH04 and CH7

2. The result basic equation calculation as follow:

Peak Power Output = Peak Power Reading + Cable loss + Attenuator

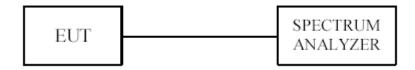
3. The worse case was recorded

Report No: 1409121 Page 61 of 101

Date: 2014-09-22

# 9. Power Spectral Density Measurement

## 9.1 Test Setup



### 9.2 Limits of Power Spectral Density Measurement

The Maximum Power Spectral Density Measurement is 8dBm.

#### 9.3 Test Procedure

- 1. Use this procedure when the maximum peak conducted output power in the fundamental emission is used to demonstrate compliance.
- 2. Set the RBW = 10 kHz.
- 3. Set the VBW  $\geq$  30 kHz.
- 4. Set the span to 1.5 times the DTS channel bandwidth.
- 5. Detector = peak.
- 6. Sweep time = auto couple.
- 7. Trace mode = max hold.
- 8. Allow trace to fully stabilize.
- 9. Use the peak marker function to determine the maximum amplitude level.
- 10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.
- 11. The resulting peak PSD level must be  $\leq 8$  dBm.

Report No: 1409121 Page 62 of 101

Date: 2014-09-22



### 9.4Test Result

EUT		MII	D	M	odel	PLT	1052 (512-8GB)
Mode		802.11b 11Mbps		Input Voltage		AC120V	
Temperature		24 deg	24 deg. C,		Humidity		56% RH
Channel	Channel Frequency (MHz)		Final RF Power Level (dBm)		Maximum Limit (dBm)		Pass/ Fail
			11Mbp	s			
1		2412	-18.95		8		Pass
6 2437		-17.54		8		Pass	
11	11 2462		-16.78		8		Pass

EUT		MII	)	M	odel	PLT	1052 (512-8GB)
Mode		802.11b 1Mbps		Input Voltage		AC120V	
Temperature		24 deg. C,		Humidity		56% RH	
Channel	Cha	annel Frequency	Final RF Po	wer	Maximum Limit		Pass/ Fail
Chamici		(MHz)	Level in (dBm)		(dB	m)	
			1Mbps				
1		2412	-18.59		8		Pass
6 2437		-18.67		8		Pass	
11		2462	-16.74		8		Pass

Report No: 1409121 Page 63 of 101

Date: 2014-09-22



EUT	EUT		D	M	odel	PLT	1052 (512-8GB)
Mode		802.11g 54Mbps		Input Voltage		AC120V	
Temperature		24 deg	24 deg. C,		Humidity		56% RH
Channel	Cha	annel Frequency	Final RF Power		Maximum Limit		Pass/ Fail
Chamier		(MHz)	Level in (dl	Bm)	(dB	m)	
			54bps				
1		2412	-26.76		8		Pass
6	6 2437		-26.12		8		Pass
11		2462	-24.67		8		Pass

EUT		MII	MID		Model		1052 (512-8GB)
Mode 802.11n		802.11n HT2	20 65Mbps	Input Voltage		AC120V	
Temperature		24 deg	g. C,	Humidity		56% RH	
Channel	Cha	annel Frequency	Final RF Power		Maximum Limit		Pass/ Fail
		(MHz)	Level (dBm)		(dB	m)	
			HT20				
1		2412	-24.51		8		Pass
6	6 2437		-23.96		8		Pass
11		2462	-23.13		8		Pass

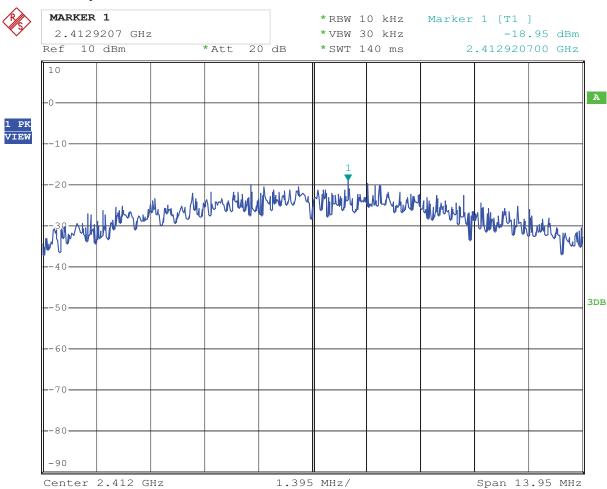
EUT		MID		Model		PLT1052 (512-8GB)	
Mode		802.11n HT40 65Mbps		Input Voltage		AC120V	
Temperature		24 deg. C,		Humidity		56% RH	
Channel	Channel Frequency (MHz)		Final RF Power Level (dBm)		Maximum Limit (dBm)		Pass/ Fail
HT40							
1	2422		-28.02		8		Pass
4	2437		-27.62		8		Pass
7	2452 -27.27			8		Pass	

Report No: 1409121 Page 64 of 101

Date: 2014-09-22

## 9.5 Photo of Power Spectral Density Measurement

1.802.11b at 11Mbps of CH01

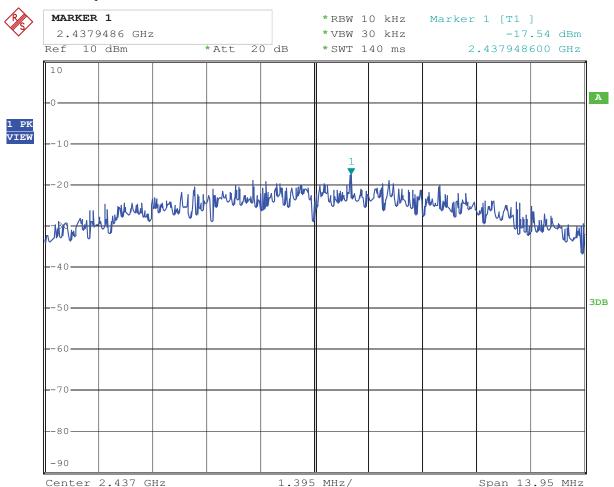


Date: 16.SEP.2014 11:38:24 Report No: 1409121 Page 65 of 101

Date: 2014-09-22



## 2. 802.11b at 11Mbps at CH06



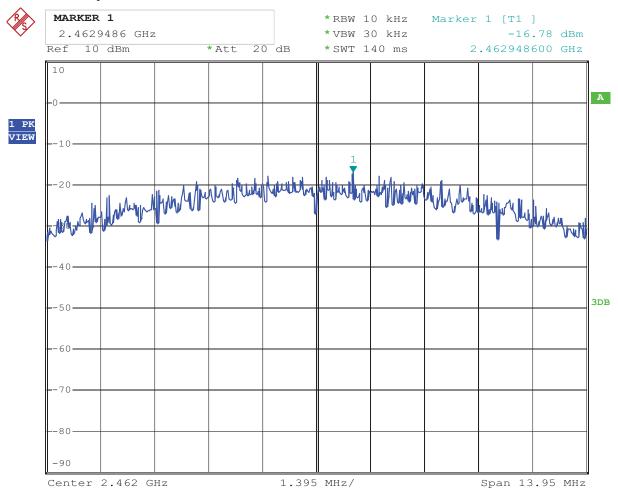
Date: 16.SEP.2014 11:37:46

Report No: 1409121 Page 66 of 101

Date: 2014-09-22



## 3. 802.11b at 11Mbps of CH11



Date: 16.SEP.2014 11:32:10

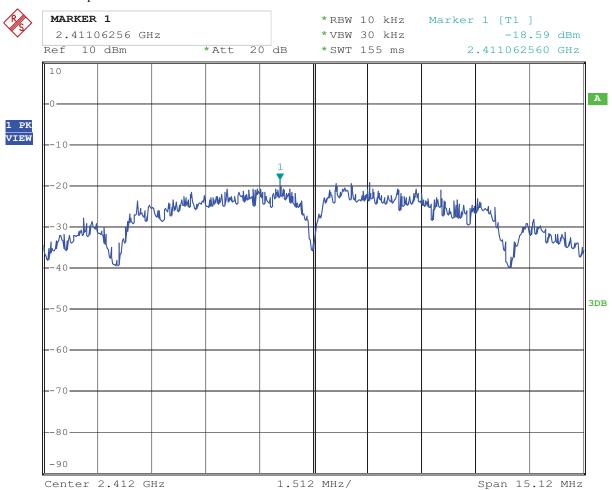
Page 67 of 101

Date: 2014-09-22

Report No: 1409121



## 4. 802.11b at 1Mbps of CH1



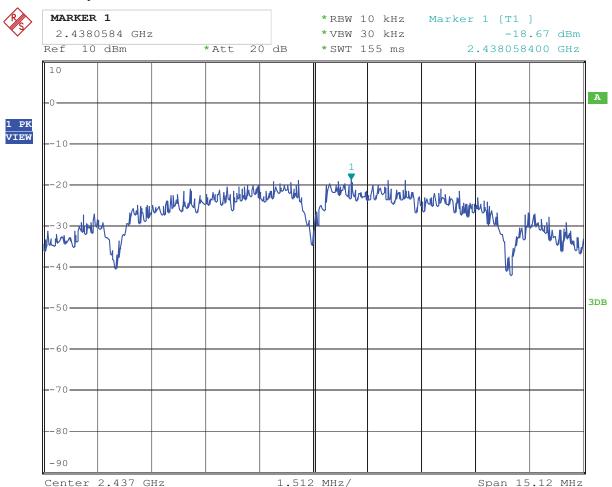
Date: 16.SEP.2014 11:21:33

Report No: 1409121 Page 68 of 101

Date: 2014-09-22



## 5. 802.11b at 1Mbps of CH6



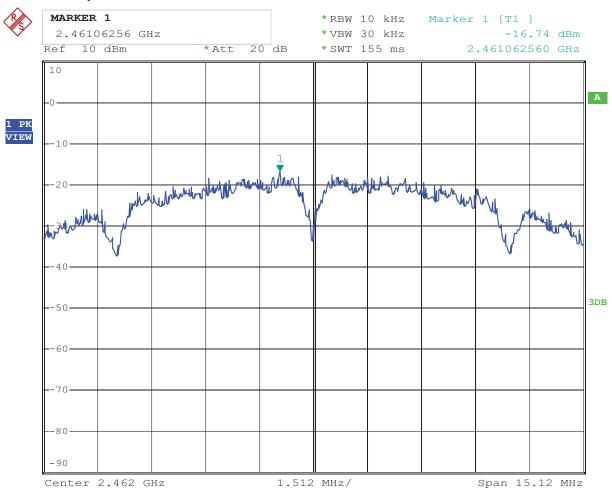
Date: 16.SEP.2014 11:21:06

Report No: 1409121 Page 69 of 101

Date: 2014-09-22



## 6. 802.11b at 1Mbps of CH11



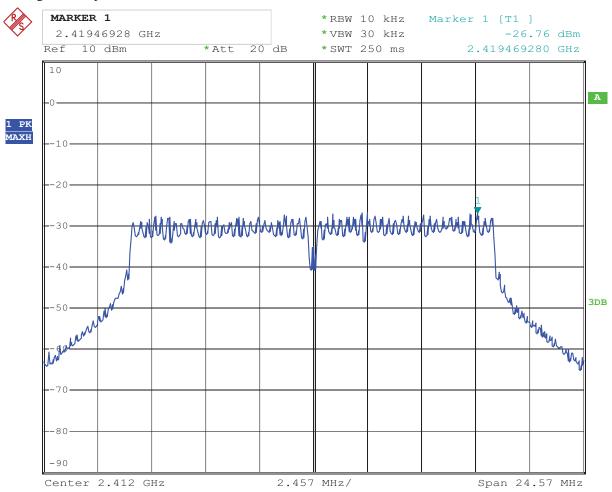
Date: 16.SEP.2014 11:18:09

Report No: 1409121 Page 70 of 101

Date: 2014-09-22



## 7. 802.11g at 54Mbps of CH1



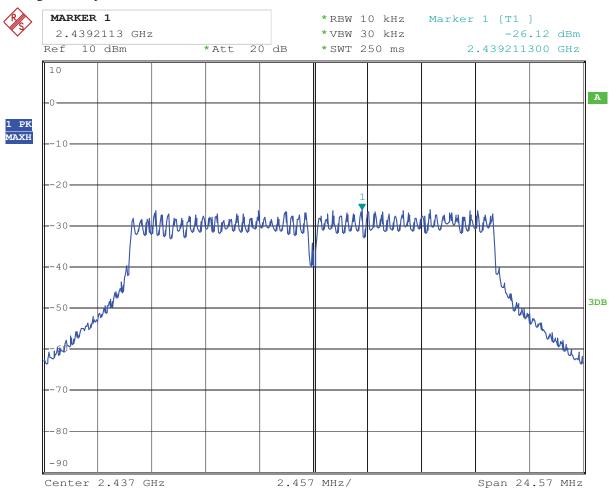
Date: 16.SEP.2014 11:24:19

Report No: 1409121 Page 71 of 101

Date: 2014-09-22



## 8. 802.11g at 54Mbps of CH6



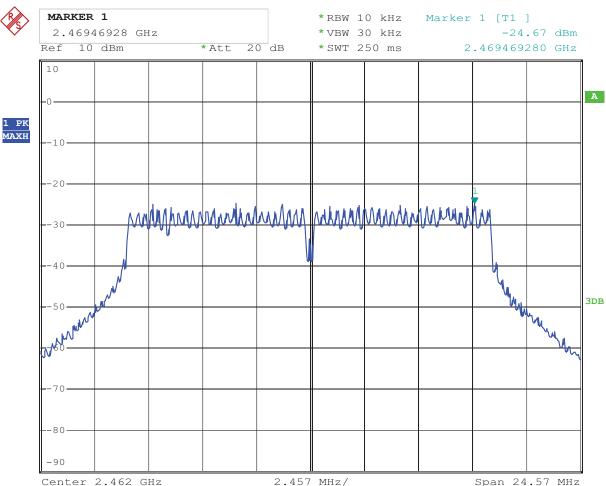
Date: 16.SEP.2014 11:24:54

Report No: 1409121 Page 72 of 101

Date: 2014-09-22



## 9. 802.11g at 54Mbps of CH11

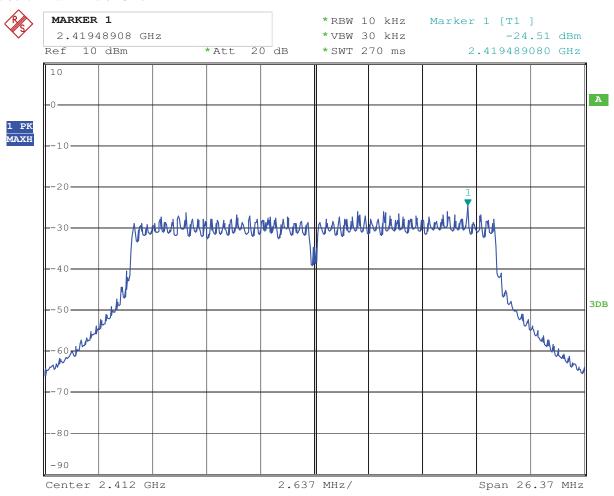


Date: 16.SEP.2014 11:29:26

Report No: 1409121 Page 73 of 101

Date: 2014-09-22

#### 10. 802.11n at HT20 of CH01



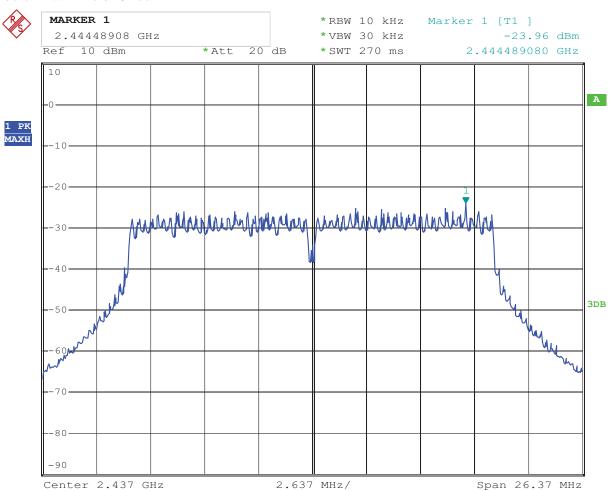
16.SEP.2014 11:47:14 Date:

Report No: 1409121 Page 74 of 101

Date: 2014-09-22



#### 11. 802.11n at HT20 of CH06



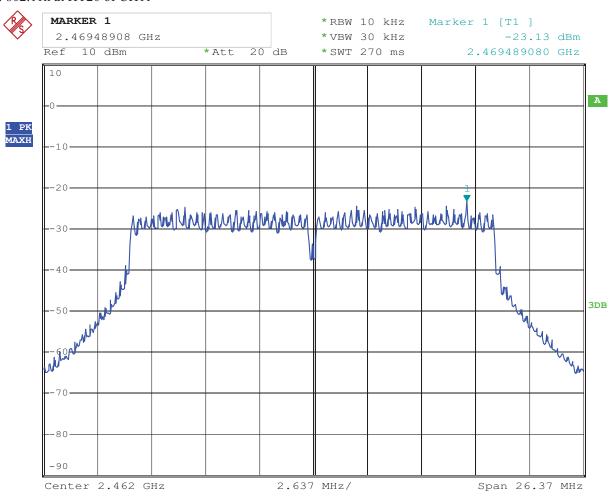
Date: 16.SEP.2014 11:48:33

Report No: 1409121 Page 75 of 101

Date: 2014-09-22



#### 12. 802.11n at HT20 of CH11



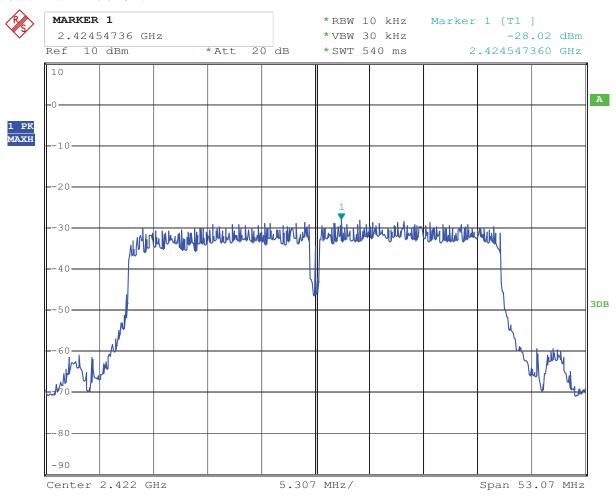
Date: 16.SEP.2014 11:53:31

Report No: 1409121 Page 76 of 101

Date: 2014-09-22



#### 13. 802.11n at HT40 of CH01



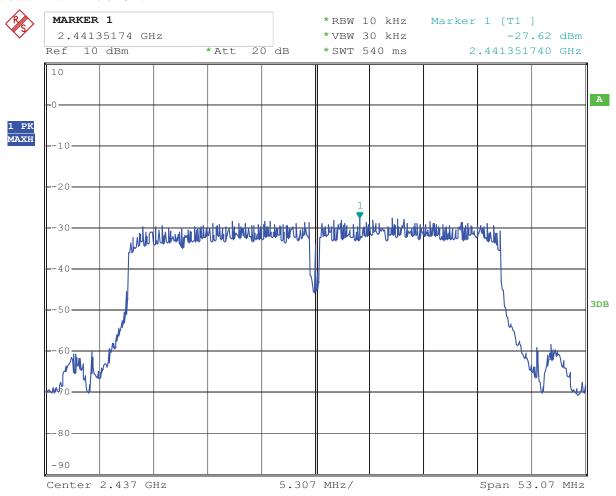
Date: 16.SEP.2014 11:55:51

Report No: 1409121 Page 77 of 101

Date: 2014-09-22



#### 14. 802.11n at HT40 of CH04



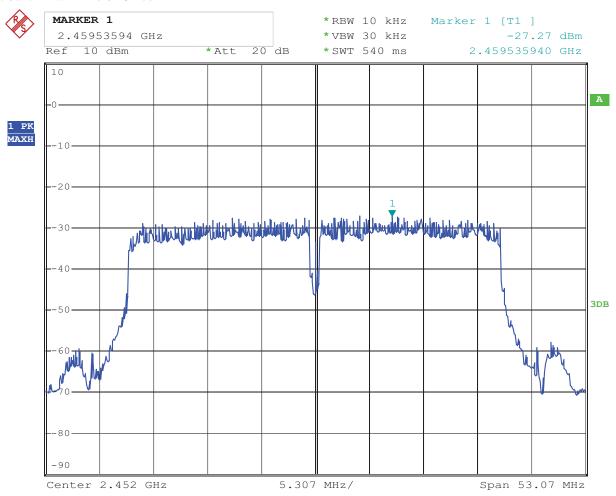
Date: 16.SEP.2014 12:00:28

Report No: 1409121 Page 78 of 101

Date: 2014-09-22



#### 15. 802.11n at HT40 of CH07



Date: 16.SEP.2014 12:01:31

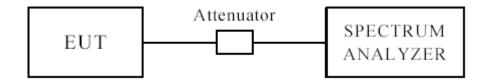
Report No: 1409121 Page 79 of 101

Date: 2014-09-22



# **10 Out of Band Measurement**

# 10.1 Test Setup for band edge



The restricted band requirement based on radiated emission test; please see the clause 6 for the test setup

## 10.2 Limits of Out of Band Emissions Measurement

- 1. Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).
- 2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

#### **10.3 Test Procedure**

For signals in the restricted bands above and below the 2.4-2.483GHz allocated band a measurement was made of radiated emission test.( Peak values with RBW=1MHz, VBW=3MHz and PK detector. AV value with RBW=1MHz, VBW=3MHz and RMS detector)

For bandage test, the spectrum set as follows: RBW=100, VBW=300 kHz. A conducted measurement used

## 10.4 Test Result

Please see next pages

Note: 1. this is a handhold device. The radiated emissions should be tested under 3-axes position (Lying, Side, and Stand), after pre-test. It was found that the worse radiated emission was get at the lying position. the worse case was recorded

2. For band-edge measurement, the frequency from 30MHz-25GHz was tested. And It met the FCC rule.

Page 80 of 101

Report No: 1409121 Date: 2014-09-22



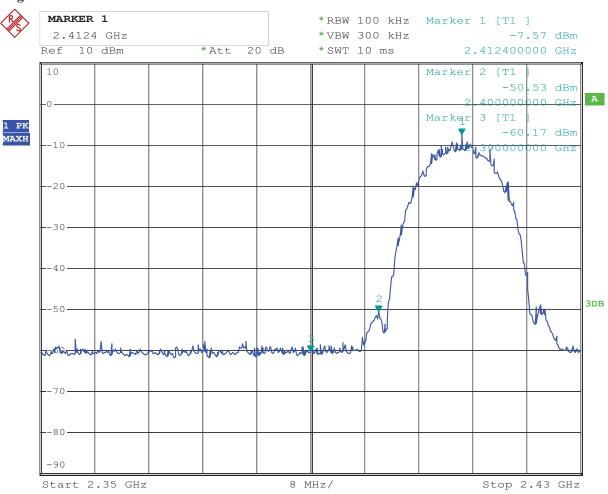
## For 802.11b mode

CH01 at 11Mbps

10.4 Band-edge and Restricted band Measurement

2001 2000 vago and reconstruct cand reconstruct							
EUT	MID		Model	PLT1052 (512-8GB)			
Mode	Keeping Transmitting		Input Voltage	AC120V			
Temperature	24 deg. C,		Humidity	56% RH			
Test Result:	Pass		Detector	PK			
2400	PK (dBµV/m)	46.57	T ::4	$74(dB\mu V/m)$			
	AV (dBμV/m)		Limit	54(dBμV/m)			
2390	PK (dBμV/m)	38.36	Limit	74(dBμV/m)			
	AV (dBμV/m)		Limit	54(dBμV/m)			

## **Test Figure:**



Date: 16.SEP.2014 12:30:05

Page 81 of 101

Report No: 1409121 Date: 2014-09-22

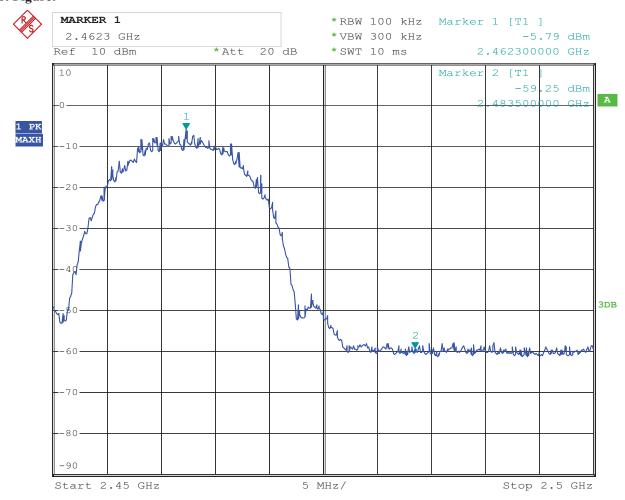


## CH11 at 11Mbps

#### **10.4** Band-edge and Restricted band Measurement

EUT	MID		Model	PLT1052 (512-8GB)
Mode	Keeping Transmitting		Input Voltage	AC120V
Temperature	24 deg. C,		Humidity	56% RH
Test Result:	Pass		Detector	PK
2483.5	PK (dBμV/m)	42.85	T : :/	74(dBμV/m)
	AV (dBμV/m)		Limit	54(dBμV/m)

# **Test Figure:**



Date: 16.SEP.2014 12:56:53

Page 82 of 101

Report No: 1409121 Date: 2014-09-22



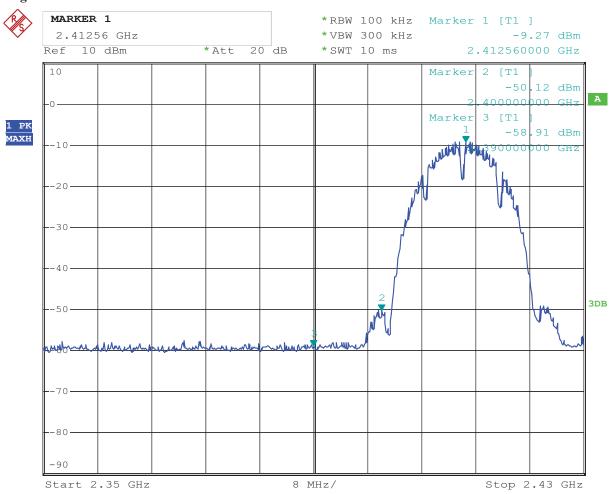
## For 802.11b mode

CH01 at 1Mbps

## 10.4 Band-edge and Restricted band Measurement

EUT	MID		Model	PLT1052 (512-8GB)
Mode	Keeping Transmitting		Input Voltage	AC120V
Temperature	24 deg. C,		Humidity	56% RH
Test Result:		Pass	Detector	PK
2400	PK (dBµV/m)	46.67	Timit	$74(dB\mu V/m)$
	AV (dBμV/m)		Limit	54(dBµV/m)
2390	PK (dBµV/m)	38.89	Limit	74(dBμV/m)
	AV (dBμV/m)		Limit	54(dBµV/m)

## **Test Figure:**



Date: 16.SEP.2014 12:22:17

Page 83 of 101

Report No: 1409121 Date: 2014-09-22

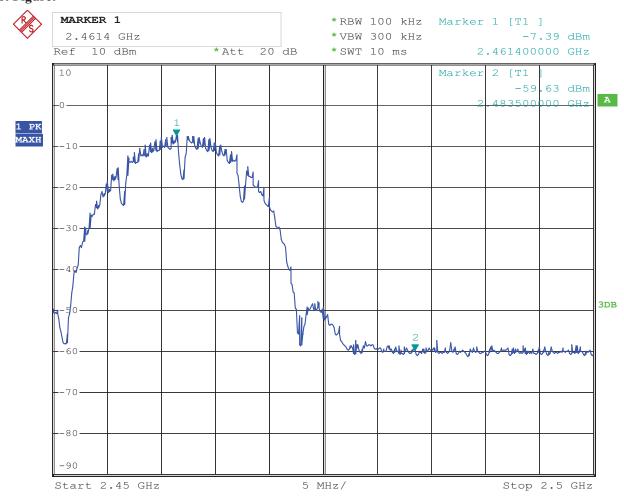


## CH11 at 1Mbps

#### **10.4** Band-edge and Restricted band Measurement

EUT	MID		Model	PLT1052 (512-8GB)
Mode	Keeping Transmitting		Input Voltage	AC120V
Temperature	24 deg. C,		Humidity	56% RH
Test Result:	Pass		Detector	PK
2483.5	PK (dBμV/m)	PK (dBμV/m) 43.08	T,	$74(dB\mu V/m)$
	AV (dBμV/m)		Limit	54(dBμV/m)

# **Test Figure:**



Date: 16.SEP.2014 12:49:44

Page 84 of 101

Report No: 1409121 Date: 2014-09-22



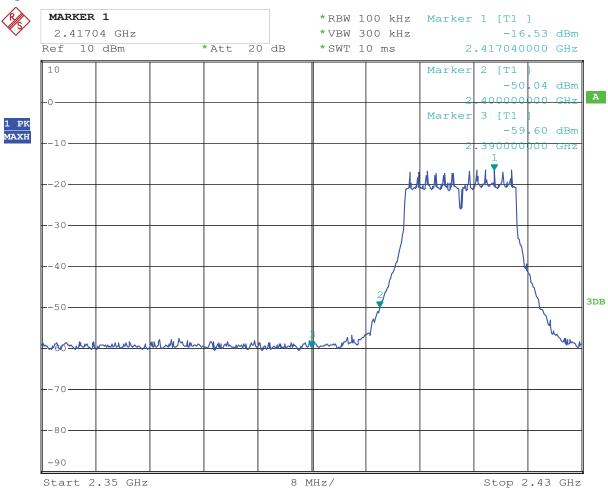
## For 802.11g mode

CH01 at 54Mbps

## 10.4 Band-edge and Restricted band Measurement

EUT	MID		Model	PLT1052 (512-8GB)			
Mode	Keeping Transmitting		Input Voltage	AC120V			
Temperature	24 deg. C,		Humidity	56% RH			
Test Result:	Pass		Detector	PK			
2400	PK (dBμV/m)	47.95	T ::4	$74(dB\mu V/m)$			
	AV (dBμV/m)		Limit	54(dBμV/m)			
2390	PK (dBμV/m)	40.97	Limit	74(dBμV/m)			
	AV (dBμV/m)		Liillit	54(dBμV/m)			

## **Test Figure:**



Date: 16.SEP.2014 12:25:57

Page 85 of 101

Report No: 1409121 Date: 2014-09-22

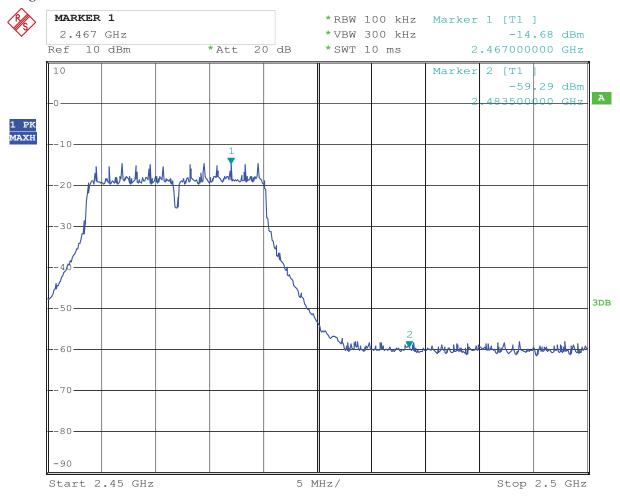


## CH11 at 54Mbps

#### **10.4** Band-edge and Restricted band Measurement

EUT	MID		Mod	lel	PLT1052 (512-8GB)
Mode	Keeping Transmitting		Input Vo	oltage	AC120V
Temperature	24 deg. C,		Humi	dity	56% RH
Test Result:	Pass		Detec	ctor	PK
2483.5	PK (dBμV/m) 45.06		74(dB)		$74(dB\mu V/m)$
	AV (dBμV/m)		Limit	54(dBμV/m)	

## **Test Figure:**



Date: 16.SEP.2014 12:50:34

Page 86 of 101

Report No: 1409121 Date: 2014-09-22



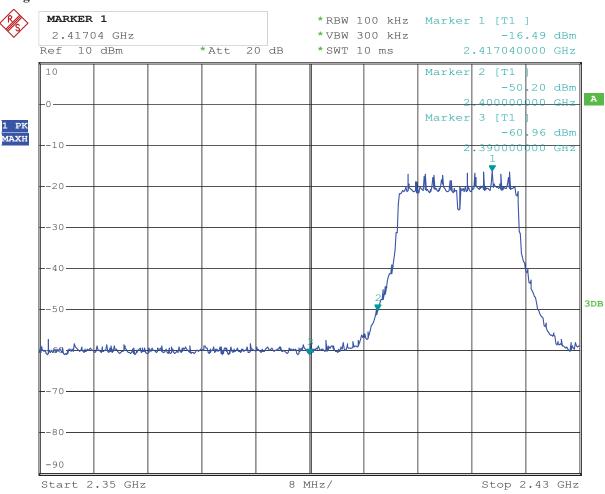
## For 802.11n (HT20) mode

CH01 at 65Mbps

## 10.4 Band-edge and Restricted band Measurement

EUT	MID		Model	PLT1052 (512-8GB)		
Mode	Keeping Transmitting		Input Voltage	AC120V		
Temperature	24 deg. C,		Humidity	56% RH		
Test Result:	Pass		Detector	PK		
2400	PK (dBμV/m)	48.75	T ::4	$74(dB\mu V/m)$		
	AV (dBμV/m)		Limit	$54(dB\mu V/m)$		
2390	PK (dBμV/m)	40.93	Limit	74(dBμV/m)		
	AV (dBμV/m)		Limit	54(dBμV/m)		

## **Test Figure:**



Date: 16.SEP.2014 12:31:08

Page 87 of 101

Report No: 1409121 Date: 2014-09-22

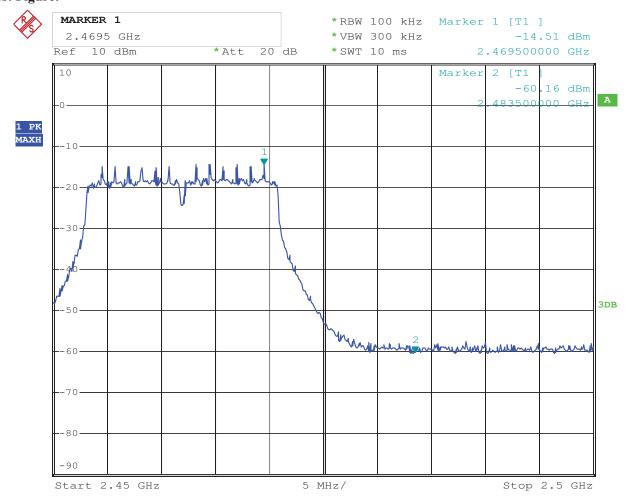


## CH11 at 65Mbps

#### **10.4** Band-edge and Restricted band Measurement

EUT	MID		Model	PLT1052 (512-8GB)
Mode	Keeping Transmitting		Input Voltage	AC120V
Temperature	24 deg. C,		Humidity	56% RH
Test Result:	Pass		Detector	PK
2483.5	PK (dBμV/m)	45.13	T: '/	$74(dB\mu V/m)$
	AV (dBμV/m)		Limit	54(dBμV/m)

## **Test Figure:**



Date: 16.SEP.2014 12:45:53

Page 88 of 101

Report No: 1409121 Date: 2014-09-22



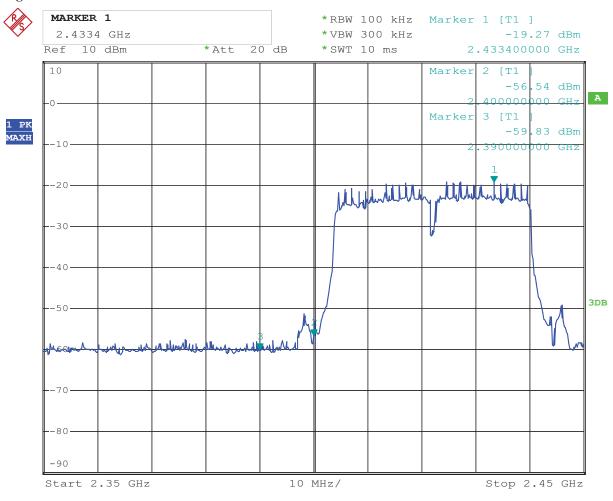
## For 802.11n (HT40) mode

CH01 at 65Mbps

## 10.4 Band-edge and Restricted band Measurement

EUT	MID		Model	PLT1052 (512-8GB)			
Mode	Keeping Transmitting		Input Voltage	AC120V			
Temperature	24 deg. C,		Humidity	56% RH			
Test Result:		Pass	Detector	PK			
2400	PK (dBμV/m)	46.94	T ::4	$74(dB\mu V/m)$			
	AV (dBμV/m)		Limit	$54(dB\mu V/m)$			
2390	PK (dBμV/m)	40.82	Limit	74(dBμV/m)			
	AV (dBμV/m)		Liffill	54(dBμV/m)			

## **Test Figure:**



Date: 16.SEP.2014 12:37:53

Page 89 of 101

Report No: 1409121 Date: 2014-09-22

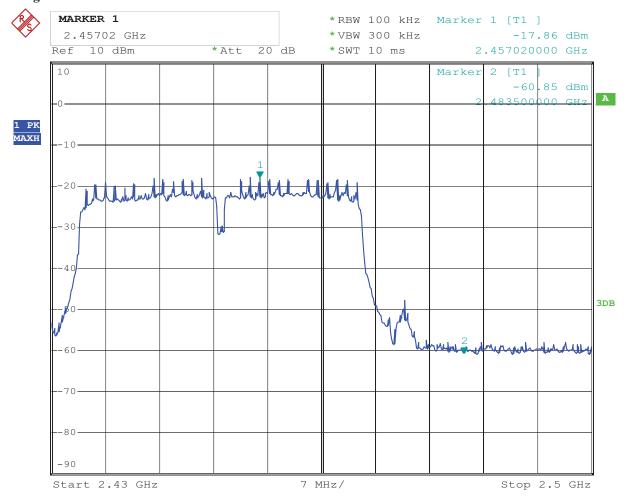


## CH7 at 65Mbps

#### **10.4** Band-edge and Restricted band Measurement

EUT	MID		Model	PLT1052 (512-8GB)
Mode	Keeping Transmitting		Input Voltage	AC120V
Temperature	24 deg. C,		Humidity	56% RH
Test Result:	Pass		Detector	PK
2483.5	PK (dBμV/m)	43.29	T,	$74(dB\mu V/m)$
	AV (dBμV/m)		Limit	$54(dB\mu V/m)$

# **Test Figure:**



Date: 16.SEP.2014 12:39:13

Report No: 1409121 Page 90 of 101

Date: 2014-09-22



# 11.0 Antenna Requirement

# 11.1 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 transmitter antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the mount in dB that the directional gain of the antenna exceeds 6 dBi.

## 11.2 Antenna Connected construction

Integral antenna used. The maximum Gain of the antennas is 2.0 dBi.

Report No: 1409121 Page 91 of 101

Date: 2014-09-22



## 12.0 FCC ID Label

## FCC ID:2AC6XPLT1052

The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

## **Mark Location:**



Page 92 of 101 Report No: 1409121

Date: 2014-09-22

#### 13.0 Photo of testing

Conducted Emission Test Setup:



Page 93 of 101

Report No: 1409121 Date: 2014-09-22



# Radiated Emission Test Setup:





The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co.,Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co.,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co.,Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting co .,Ltd reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Page 94 of 101

Report No: 1409121 Date: 2014-09-22



# Photographs - EUT

## Outside view





The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co., Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co .,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co., Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting co .,Ltd reserves the rights to withdraw it and to

Page 95 of 101

Report No: 1409121 Date: 2014-09-22



Outside view





The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co., Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co .,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co., Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting co.,Ltd reserves the rights to withdraw it and to

Page 96 of 101

Report No: 1409121 Date: 2014-09-22



## Outside view





The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co., Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co .,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co., Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting co.,Ltd reserves the rights to withdraw it and to

Page 97 of 101

Report No: 1409121 Date: 2014-09-22



Inside view





The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co., Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co .,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co., Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting co .,Ltd reserves the rights to withdraw it and to

Page 98 of 101

Report No: 1409121 Date: 2014-09-22



Inside view





The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co., Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co .,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co., Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

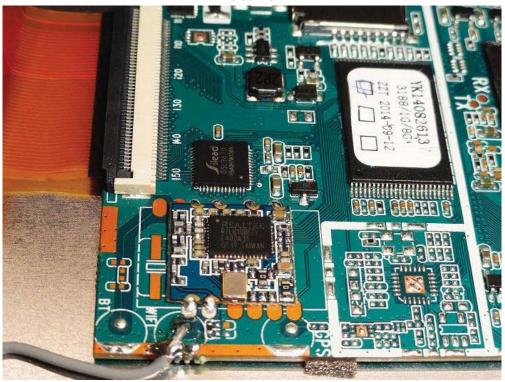
In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting co .,Ltd reserves the rights to withdraw it and to

Page 99 of 101

Report No: 1409121 Date: 2014-09-22



Inside view





The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co.,Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co.,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co.,Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting co .,Ltd reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Page 100 of 101

Report No: 1409121 Date: 2014-09-22



# Inside view





The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co.,Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it. or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co.,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co.,Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

of correspondence with any third party concerning the contents of the report.

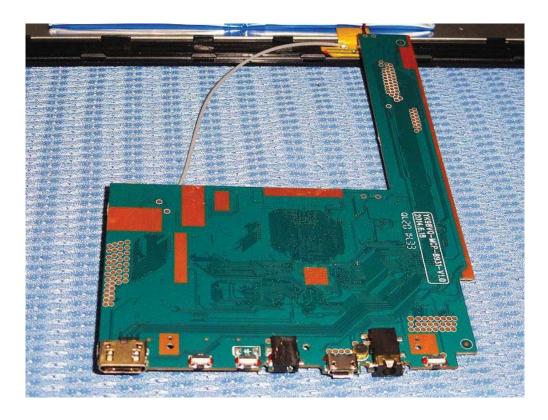
In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting co .,Ltd reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Report No: 1409121 Page 101 of 101

Date: 2014-09-22



Inside view



-End of the report