

Report No: FCC 1509133-01 File reference No: 2015-09-29 Applicant: JIANGSU SHUANGSHUANG TECHNOLOGY CO, LTD. Product: MID Model No: TE116C0, D2-1161G Trademark: N/A Test Standards: FCC Part 15.247 It is herewith confirmed and found to comply with the Test result: requirements set up by ANSI C63.10, FCC Part 15 Subpart C, evaluation Paragraph 15.247 regulations for the electromagnetic compatibility

of

Approved By

Jack Chung

Jack Chung

Manager

Dated:

September 29, 2015

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 TESTING LABORATORIES

Room 512-519, 5/F., East Tower, Building 4, Anhua Industrial Zone, Futian District, Shenzhen, Guangdong, China Tel (755) 83448688, Fax (755) 83442996, E-Mail:info@timewaytech.com



# **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 17025:2005 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.

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



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
6.1	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 and Bandwidth Measurement	38
8.0	Maximum Output Power	58
9.0	Power Spectral Density Measurement	61
10.0	Out of Band Measurement	79
11.0	Antenna Requirement	90
12.0	FCC ID/IC Label	91
13.0	Photo of Test Setup and EUT View	92

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate



# 1.0 General Details

#### 1.1 Test Lab Details

	Name :	SHENZHEN TIMEWAY TESTING LABORATORIES.	
	Address:	Room 512-519,5/F., East Tower, Building 4, Anhua Industrial Zone, Futian District, Shenzhen,	
		Guangdong China	
	Telephone:	(755) 83448688	
	Fax:	(755) 83442996	
	Site on File wi	th the Federal Communications Commission – United Sates	
	Registration Number: 899988		
	For 3m & 10 m OATS		
Site Listed with Industry Canada of Ottawa, Canada		h Industry Canada of Ottawa, Canada	
Registration Number: IC: 5205A-02			
	For 3m & 10 m OATS		

# 1.2 Applicant Details

Applicant:	JIANGSU SHUANGSHUANG TECHNOLOGY CO,LTD.
Address:	No.188, West Coastal Road, Haian County, Jiangsu Province, P.R. China.
Telephone:	0513-88355088
Fax:	0513-88355618

### 1.3 Description of EUT

1	
Product:	MID
Manufacturer:	JIANGSU SHUANGSHUANG TECHNOLOGY CO,LTD.
Address:	No.188,West Coastal Road,Haian County,Jiangsu Province,P.R.China.
Brand Name:	N/A
Model Number:	TE116C0
Additional Model Nur	mber: D2-1161G
Type of Modulation	IEEE 802.11b : DSSS (CCK, QPSK, DBPSK)
	IEEE 802.11g/n (HT20/40) : OFDM(64QAM, 16QAM, QPSK, BPSK)
Frequency range	IEEE802.11b/g/n (HT20/40): 2412-2462MHz,IEEE802.11n (HT40) : 2422-2452MHz
Channel Spacing	5MHz for IEEE 802.11b/g/n(HT20/40)
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 : 150, 135, 117 ,104, 78, 65, 58.5, 52, 39, 26, 19.5, 13, 6.5
	Mbps
Frequency Selection	By software
Channel Number	IEEE 802.11b/g/n (HT20) : 11 Channels; IEEE 802.11n (HT40) : 7 Channels,
Antenna:	Integral Antenna and the maximum Gain of this antenna is 1.71dBi;

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third not we contents of the report. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to

adopt any other remedies which may be appropriate.



Power Adapter Model No.: KA23-0502000USU Input: 100-240V, 50/60Hz, 0.35A; Output: DC5V, 2000mA

- Submitted Sample: 2 Samples 1.4
- 1.5 Test Duration 2015-09-22 to 2015-09-29
- 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

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



2.0 Test Equipments					
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
ESPI Test Receiver	R&S	ESPI 3	100379	2015-08-22	2016-08-21
TWO Line-V-NETW	R&S	EZH3-Z5	100294	2015-08-22	2016-08-21
TWO Line-V-NETW	R&S	EZH3-Z5	100253	2015-08-22	2016-08-21
Ultra Broadband ANT	R&S	HL562	100157	2015-08-23	2016-08-22
ESDV Test Receiver	R&S	ESDV	100008	2015-08-22	2016-08-21
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2015-08-22	2016-08-21
System Controller	СТ	SC100	-		
Printer	EPSON	РНОТО ЕХЗ	CFNH234850		
Computer	IBM	8434	1S8434KCE99BLXLO*	-	-
Loop Antenna	EMCO	6502	00042960	2015-08-23	2016-08-22
ESPI Test Receiver	R&S	ESI26	838786/013	2015-08-22	2016-08-21
3m OATS			N/A	2015-08-24	2016-08-23
Horn Antenna	R&S	BBHA 9170	BBHA9170265	2015-08-24	2016-08-23
Horn Antenna	R&S	BBHA 9120D	9120D-631	2015-08-24	2016-08-23
Power meter	Anritsu	ML2487A	6K00003613	2015-08-22	2016-08-21
Power sensor	Anritsu	MA2491A	32263	2015-08-22	2016-08-21
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2015-08-23	2016-08-21
LISN	AFJ	LS16C	10010947251	2015-08-22	2016-08-21
LISN (Three Phase)	Schwarebeck	NSLK 8126	8126453	2015-08-23	2016-08-22
9*6*6 Anechoic			N/A	2015-08-24	2016-08-23
EMI Test Receiver	RS	ESCS30	100139	2015-08-22	2016-08-21

2.1

Auxiliary Equipment

Name	Model No.	Rating	Manufacturer	FCC ID/DOC
Passive Earphone				

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate



# **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: 6.5Mbps data rate (worst case) were chosen for full testing

### IEEE 802.11n (HT40) mode

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

Channel	Frequency (MHz)
Low	2422
Middle	2437
High	2452

IEEE 802.11n (HT40) mode: 6.5Mbps 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.

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



#### 3.0 **Technical Details**

#### 3.1 Summary of test results

Standard	Test Type	Result	Notes
CC 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 bandwidth>500kHz	PASS	Complies
FCC Part 15, Paragraph 15.247(b)	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 and ANSI C63.4:2014 AND ANSI C63.10:2013

#### 4.0 **EUT Modification**

No modification by Shenzhen Timeway Technology Consulting Co., Ltd

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

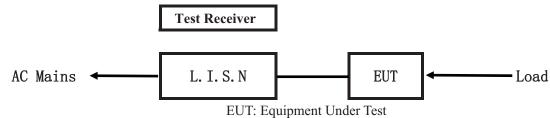
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to

adopt any other remedies which may be appropriate.



# 5.0 Power Line Conducted Emission Test

5.1 Schematics of the test

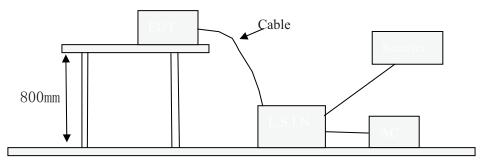


5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.4-2014. The Frequency spectrum From 0.15MHz to 30MHz was investigated. The LISN used was 500hm/50uH as specified by section 5.1 of ANSI C63.4-2014.

Test Voltage: 120V~, 60Hz

Block diagram of Test setup



# 5.3 Configuration of The EUT

The EUT was configured according to ANSI C63.4-2014. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

A.

Device	Manufacturer	Model	FCC ID
MID	JIANGSU SHUANGSHUANG	TE116C0,	2ABDT- TE116C0
MID	TECHNOLOGY CO,LTD.	D2-1161G	ZABDI-TEIIOCU

### B. Internal Device

EUT

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



- 5.4 EUT Operating Condition
- Operating condition is according to ANSI C63.4-2014.
- 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

Frequency	Class A Limits (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		
$5.00~\sim~30.00$	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.

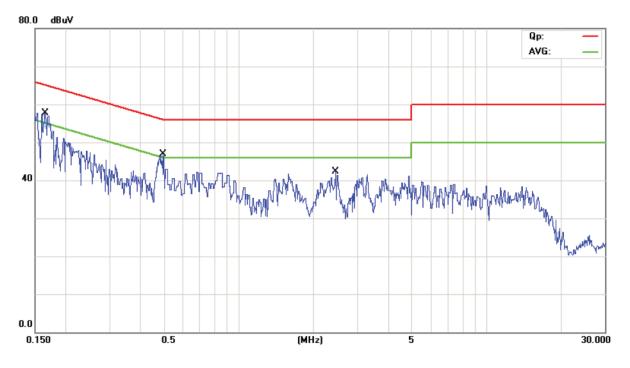
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



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: Keep WIFI Transmitting Equipment Level: Class B Results: PASS Please refer to following diagram for individual



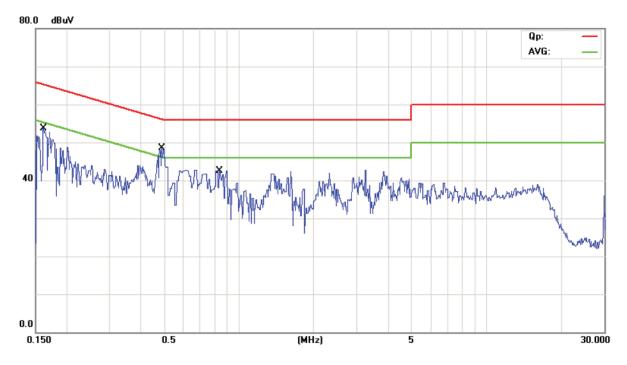
No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0.1643	37.70	11.02	48.72	65.24	-16.52	QP	
2	0.1643	4.20	11.02	15.22	55.24	-40.02	AVG	
3	0.4948	25.10	11.37	36.47	56.09	-19.62	QP	
4	0.4948	8.30	11.37	19.67	46.09	-26.42	AVG	
5	2.4595	19.20	12.48	31.68	56.00	-24.32	QP	
6	2.4595	0.60	12.48	13.08	46.00	-32.92	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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.



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: Keep WIFI Transmitting Equipment Level: Class B Results: Pass Please refer to following diagram for individual



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1616	36.50	11.01	47.51	65.38	-17.87	QP	
2	0.1616	-2.40	11.01	8.61	55.38	-46.77	AVG	
3 *	0.4860	30.70	11.36	42.06	56.24	-14.18	QP	
4	0.4860	2.50	11.36	13.86	46.24	-32.38	AVG	
5	0.8360	24.30	11.73	36.03	56.00	-19.97	QP	
6	0.8360	4.20	11.73	15.93	46.00	-30.07	AVG	

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

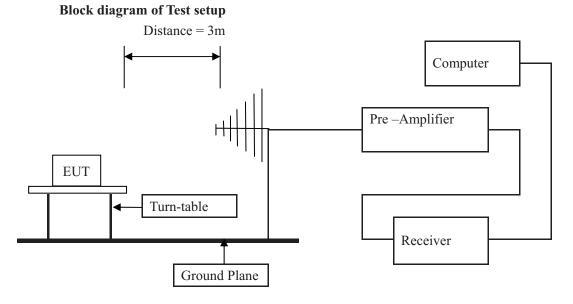
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it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



# 6 Radiated Emission Test

### 6.1 Test Method and test Procedure:

- (1) The EUT was tested according to ANSI C63.10–2013. 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 C63.10–2013.
- (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. F For measurement above 1GHz, peak values with RBW=1MHz VBW=3MHz 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.



- 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.

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



# 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:

	1. 1. 1	D 1 15 300 1 15 100
Frequencies in restricted band a	are complied to limit on	Paragraph 15.209 and 15.109

Frequency Range (MHz)	Distance (m)	Field strength (dB $\mu$ 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.

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



# **Test result** General Radiated Emission Data and Harmonics Radiated Emission Data

# Radiated Emission In Horizontal/Vertical (30MHz----1000MHz)

EUT set Condition: **Keep WIFI Transmitting** 

**Results:** 

Pass

Frequency (MHz)	Level@3m (dB µ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
30.760	30.00	Н	40.00
958.240	40.21	Н	46.00
400.000	34.57	Н	46.00
250.000	32.52	Н	46.00
100.000	30.57	V	43.50
944.960	41.06	V	46.00
150.000	37.84	V	43.50
50.000	32.97	V	40.00

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

This report refers only to the sample tested and does not apply to the bluk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of accented and one with parts accented to the sentence of the sentence.



Η MARKER 4 RBW 120 kHz Marker 4 [T1 ] 30.00 dBµV/m 30.76 MHz МT 50 µs 30.76000000 MHz Att 10 dB PREAMP ON dBµV 80 100 MHz GHz Marker 1 [[1] 1 /m dBµV/m .21 40 240000000 958 M Ηz 70 Ma ke: 1 PK MAXH 34 57 dB 'n 400 0000000 000 М Ιz 60 32 52 dB vد 'n TDF 250.000000000 M Ιz -50 FCC15 ВF Jume Jew 6DB Munumun Mintun 4 2.0 NA **MARK** 10 0 30 MHz 1 GHz

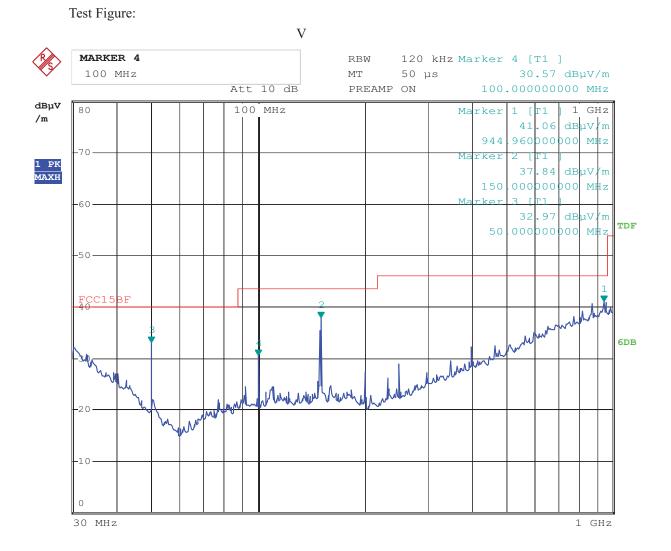
Test Figure:

Date: 23.SEP.2015 11:40:50

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.





Date: 23.SEP.2015 11:43:43

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



	0	0 1	
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4824.00	49.80 (PK)	Н	74(Peak)/ 54(AV)
4824.00	49.33 (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)

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

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 54Mbps

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

This report refers only to the sample tested and does not apply to the bluk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of accented and one with parts accented to the sentence of the sentence. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to

adopt any other remedies which may be appropriate.



Frequency (MHz)	Level@3m (dB µ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4874.00	51.18 (PK)	V	74(Peak)/ 54(AV)
4874.00	51.22 (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)

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

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 $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)		
4924	51.66 (PK)	Н	74(Peak)/ 54(AV)		
4924	51.11 (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)		
24620		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

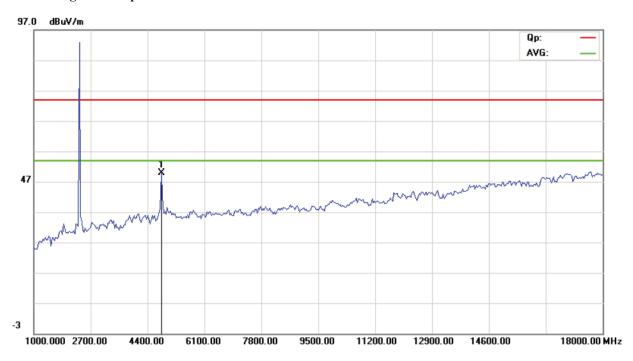
3. For 802.11g mode at 54 Mbps

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

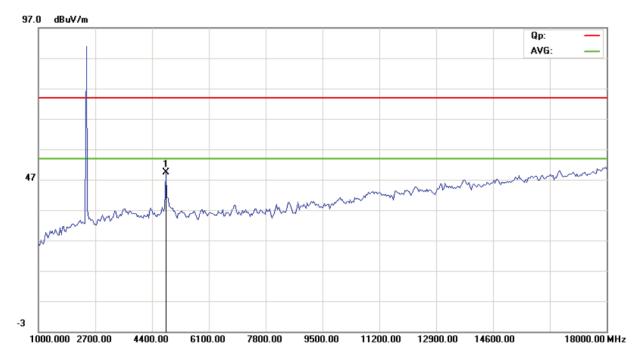
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Please refer to the following test plots for details: CH01 for 11g at 54Mbps: Horizontal



#### CH01 for 11g at 54Mbps: Vertical

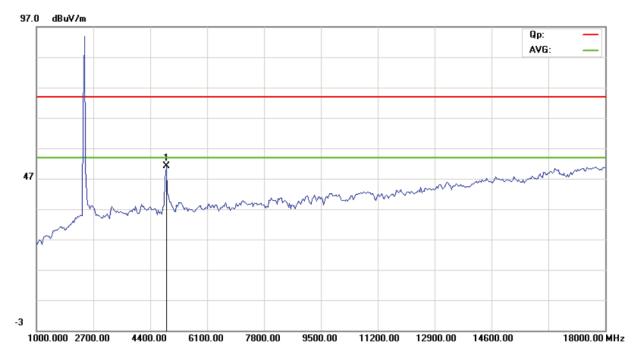


The report refers only to the sample tested and does not apply to the bulk.

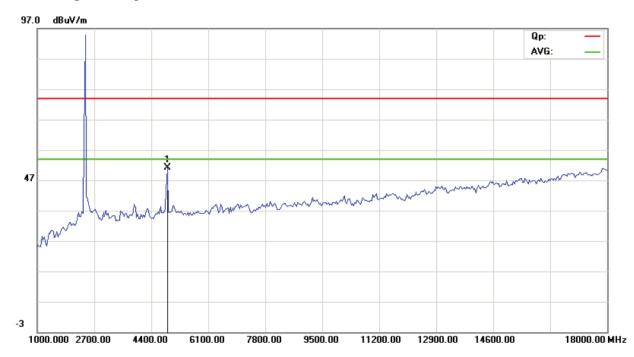
This report refers only to the sample tested and does not apply to the bluk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any



## CH06 for 11g at 54Mbps: Vertical



### CH06 for 11g at 54Mbps: Horizontal

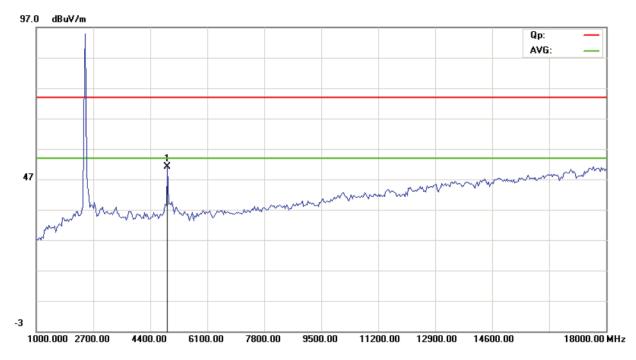


The report refers only to the sample tested and does not apply to the bulk.

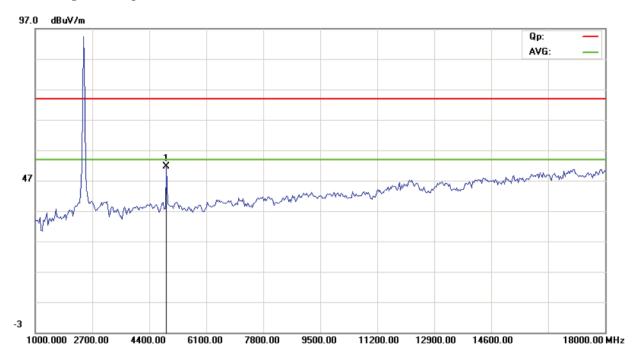
This report refers only to the sample tested and does not apply to the bluk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any



## 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 refers only to the sample tested and does not apply to the bluk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4824.00	52.83 (PK)	Н	74(Peak)/ 54(AV)
4824.00	52.62 (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)

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

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 $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)		
4874.00	50.08 (PK)	Н	74(Peak)/ 54(AV)		
4874.00	50.53 (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)		

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

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Frequency (MHz)	Level@3m (dB µ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4924	50.83 (PK)	Н	74(Peak)/ 54(AV)
4924	50.62 (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)
24620		H/V	74(Peak)/ 54(AV)

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

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 at 11Mbps

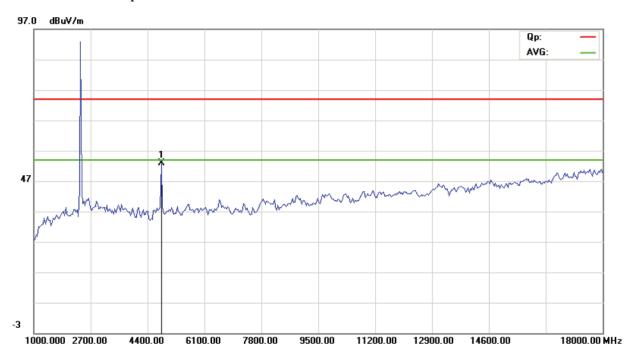
The report refers only to the sample tested and does not apply to the bulk.

This report refers only to the sample tested and does not apply to the bluk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of accented and one with parts accented to the sentence of the sentence. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to

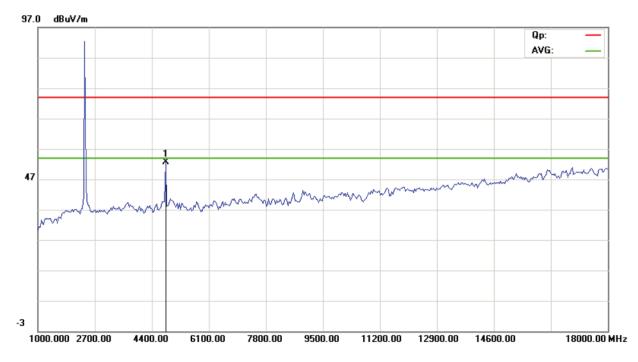
adopt any other remedies which may be appropriate.



Please refer to the following test plots for details: CH01 for 11b at 11Mbps: Horizontal



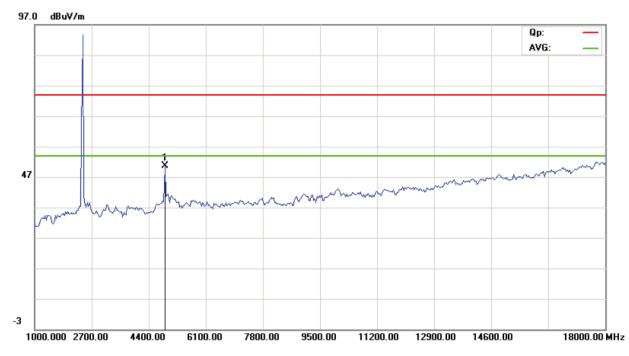
### CH01 for 11b at 11Mbps: Vertical



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

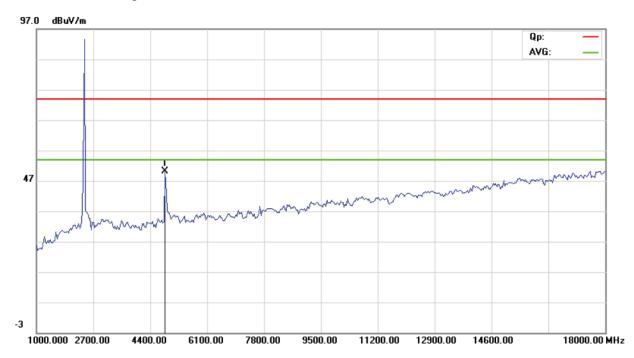
This report refers only to the sample tested and does not apply to the bluk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any





# CH06 for 11b at 11Mbps: Vertical

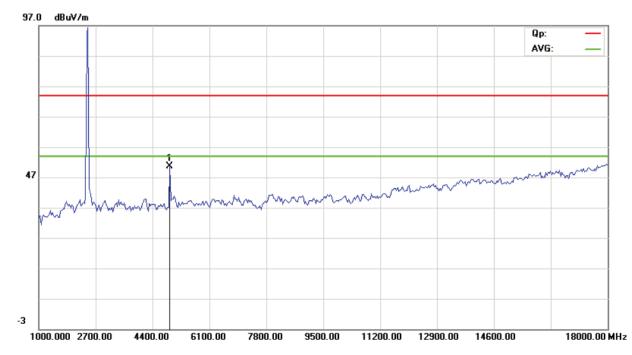
### CH06 for 11b at 11Mbps: Horizontal



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

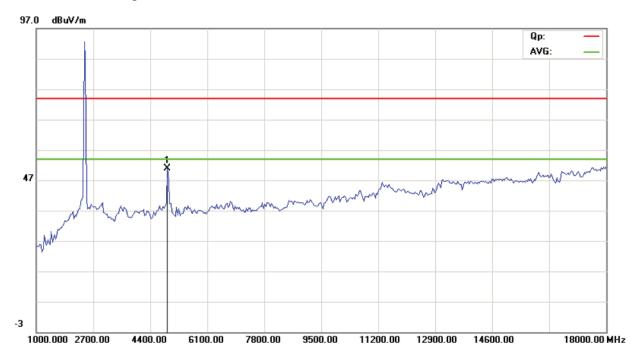
This report refers only to the sample tested and does not apply to the bluk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any





# 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 refers only to the sample tested and does not apply to the bluk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4824.00	50.35 (PK)	Н	74(Peak)/ 54(AV)
4824.00	50.09 (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)

#### Operation Mode: Transmitting under CH01 for 11n HT20 at 6.5Mbps

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 6.5Mbps

#### Operation Mode: Transmitting under CH06 for 11n HT20 at 6.5Mbps

1	8		1
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4874.00	52.58 (PK)	Н	74(Peak)/ 54(AV)
4874.00	52.19 (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)

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 6.5Mbps

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Frequency (MHz)	Level@3m (dB µ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4924	51.19 (PK)	Н	74(Peak)/ 54(AV)
4924	51.64 (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)
24620		H/V	74(Peak)/ 54(AV)

# Operation Mode: Transmitting under CH11 for 11n HT20 at 6.5Mbps

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 6.5Mbps

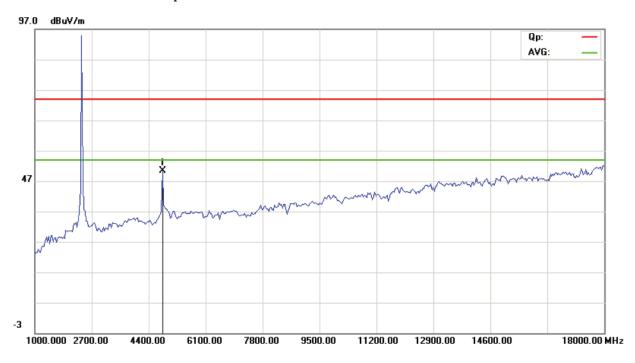
The report refers only to the sample tested and does not apply to the bulk.

This report refers only to the sample tested and does not apply to the bluk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of accented and one with parts accented to the sentence of the sentence. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to

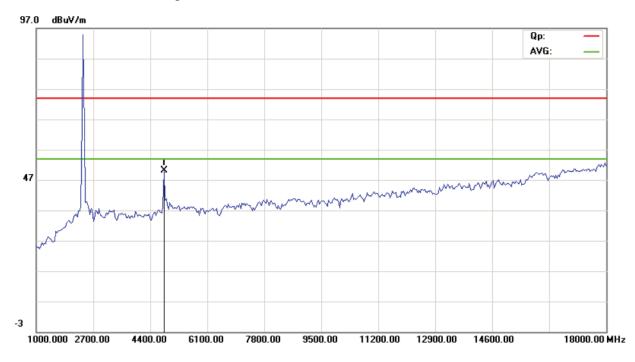
adopt any other remedies which may be appropriate.



Please refer to the following test plots for details: CH01 for 11n HT20 at 6.5Mbps: Horizontal



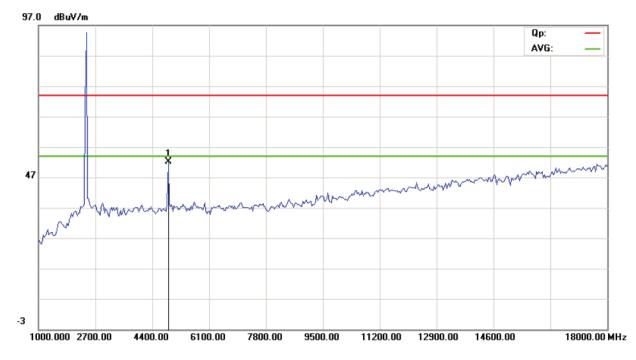
#### CH01 for 11n HT20 at 6.5Mbps: Vertical



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

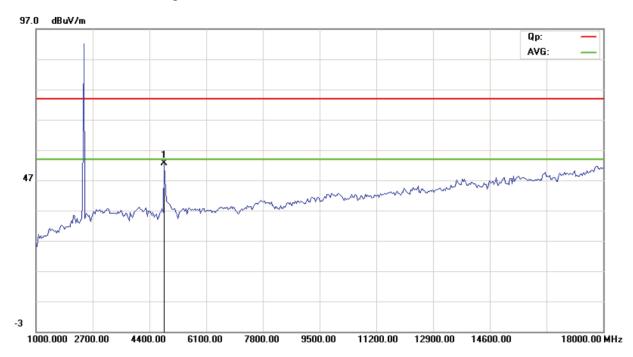
This report refers only to the sample tested and does not apply to the bluk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any





# CH06 for 11n HT20 at 6.5Mbps: Vertical

### CH06 for 11n HT20 at 6.5Mbps: Horizontal



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

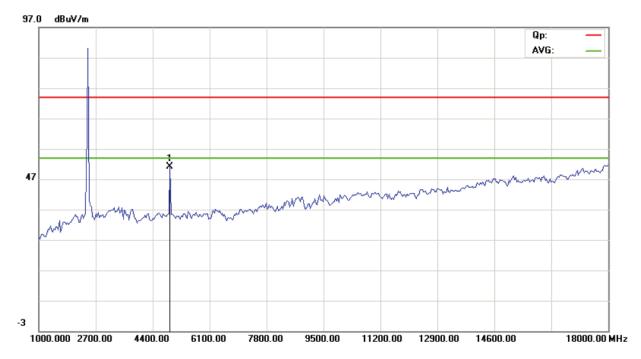
This report refers only to the sample tested and does not apply to the bluk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any



# 97.0 dBu∀/m Qp: AVG: 47 -3 18000.00 MHz 9500.00 1000.000 2700.00 4400.00 6100.00 7800.00 11200.00 12900.00 14600.00

# CH11 for 11n HT20 at 6.5Mbps: Vertical

#### CH11 for 11n HT20 at 6.5Mbps: 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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Frequency (MHz)	Level@3m (dB µ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4844.00	48.55 (PK)	Н	74(Peak)/ 54(AV)
4844.00	48.29 (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)

### Operation Mode: Transmitting under CH01 for 11n HT40 at 6.5Mbps

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 6.5Mbps

#### Operation Mode: Transmitting under CH04 for 11n HT40 at 6.5Mbps

1	8		1
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4874.00	48.19 (PK)	Н	74(Peak)/ 54(AV)
4874.00	48.56 (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)

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 6.5Mbps

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4904	49.37 (PK)	Н	74(Peak)/ 54(AV)
4904	49.64 (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)

# Operation Mode: Transmitting under CH07 for 11n HT40 at 6.5Mbps

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 6.5Mbps

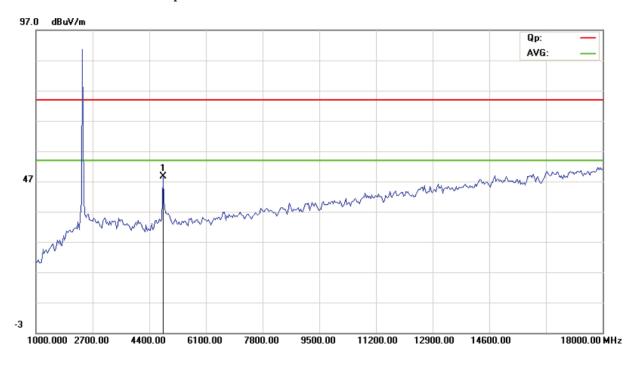
The report refers only to the sample tested and does not apply to the bulk.

This report refers only to the sample tested and does not apply to the bluk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of accented and one with parts accented to the sentence of the sentence. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to

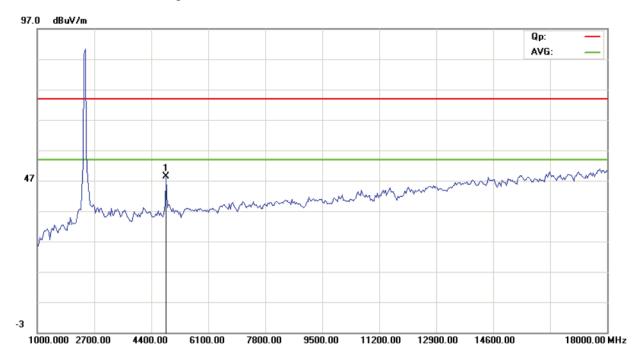
adopt any other remedies which may be appropriate.



Please refer to the following test plots for details: CH01 for 11n HT40 at 6.5Mbps: Horizontal



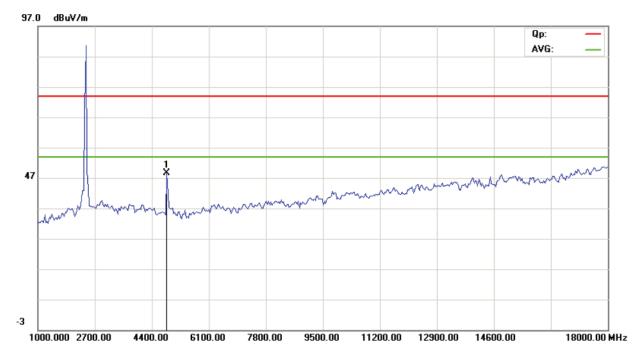
#### CH01 for 11n HT40 at 6.5Mbps: Vertical



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

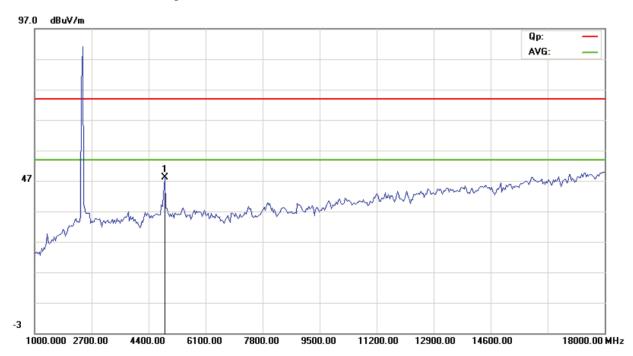
This report refers only to the sample tested and does not apply to the bluk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any





# CH04 for 11n HT40 at 6.5Mbps: Vertical

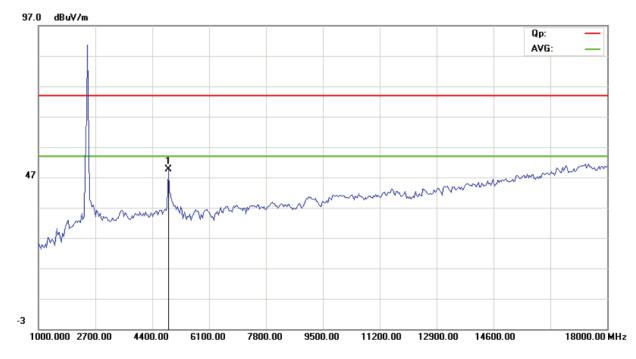
#### CH04 for 11n HT40 at 6.5Mbps: Horizontal



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

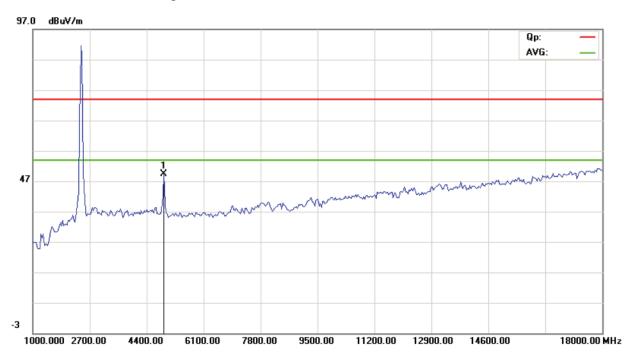
This report refers only to the sample tested and does not apply to the bluk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any





## CH07 for 11n HT40 at 6.5Mbps: Vertical

CH07 for 11n HT40 at 6.5Mbps : Horizontal



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

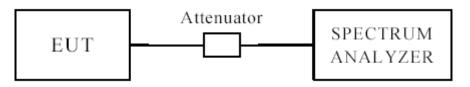
The report refers only to the sample tested and does not apply to the bulk.

This report refers only to the sample tested and does not apply to the bluk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



# 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)  $\ge$  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

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



### 6dB Occupied Bandwidth

EUT		Ν	/ID		Model		TE116C0	), D2-1161G
Mode		802	802.11b			Input Voltage		C3.7V
Temperature		24 c	leg. C,		Humidity		56	% RH
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)	6 dl	3 Bandwidth (MHz)	Μ	linimum Limit (MHz)	Pass/ Fail
1		2412	1		10.09		0.5	Pass
6		2437	1		10.04		0.5	Pass
11		2462	1		10.04		0.5	Pass
1		2412	11		10.22		0.5	Pass
6		2437	11		10.22		0.5	Pass
11		2462	11		10.22	0.5		Pass

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate



Page 40 of 104

## 1. 802.11b at 1Mbps of CH01



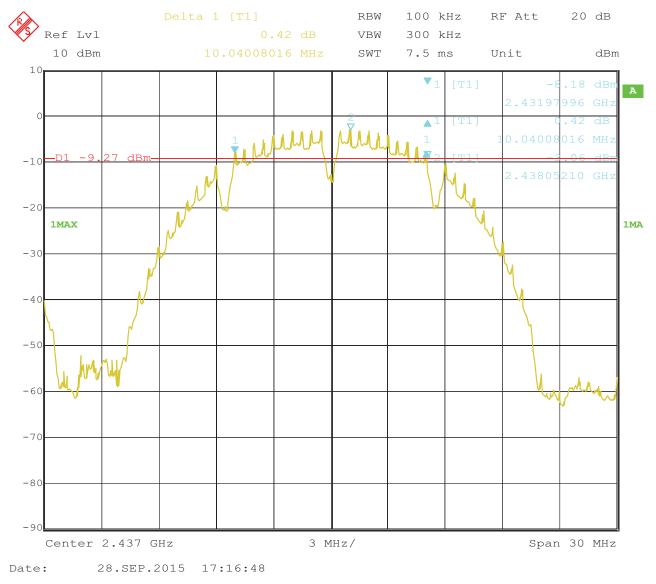
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as the strictly treated as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 41 of 104

## 2. 802.11b at 1Mbps of CH06



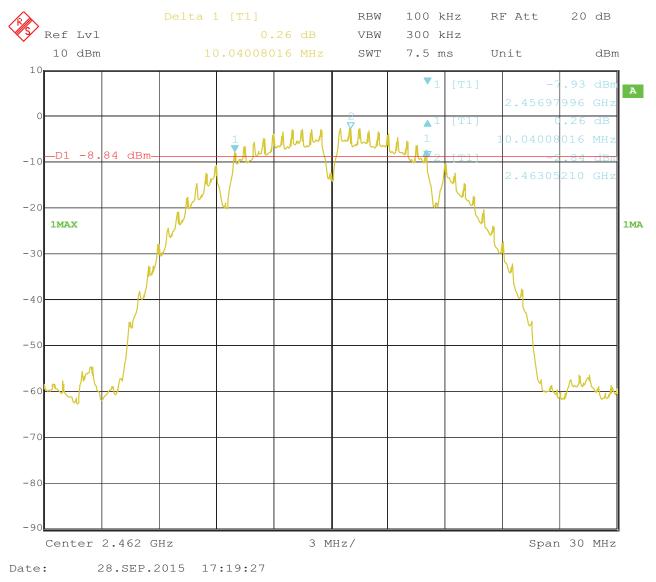
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as the strictly treated as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 42 of 104

## 3. 802.11b at 1Mbps of CH11



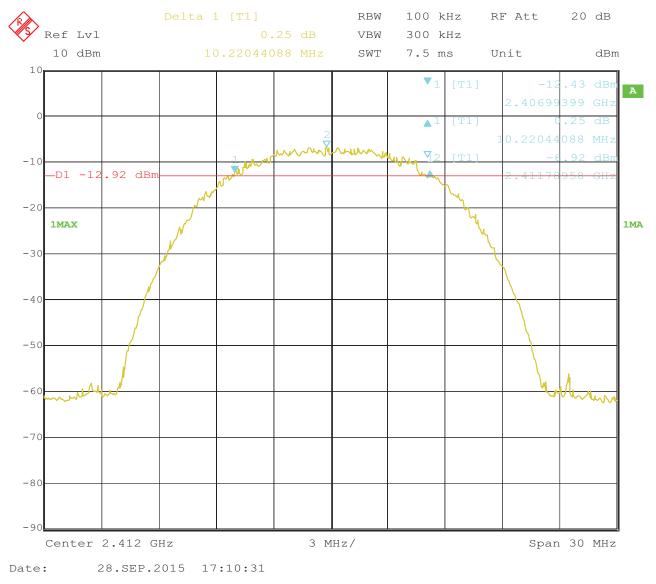
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as the strictly treated as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 43 of 104

# 4. 802.11b at 11Mbps of CH01



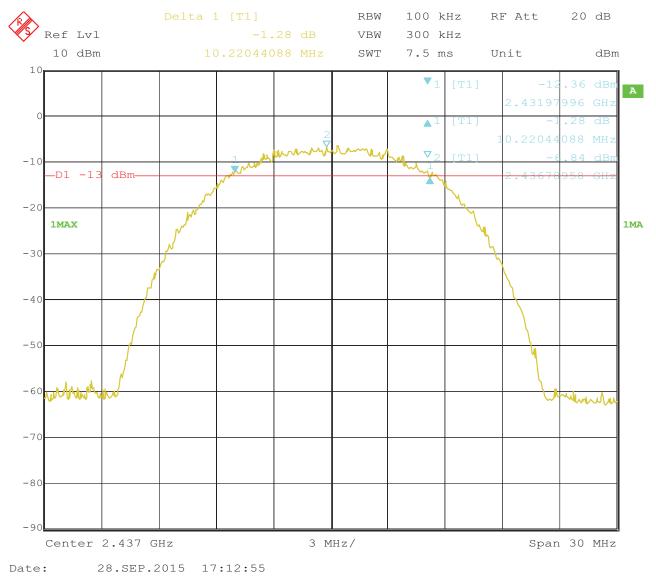
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as the strictly treated as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 44 of 104

# 5. 802.11b at 11Mbps of CH06



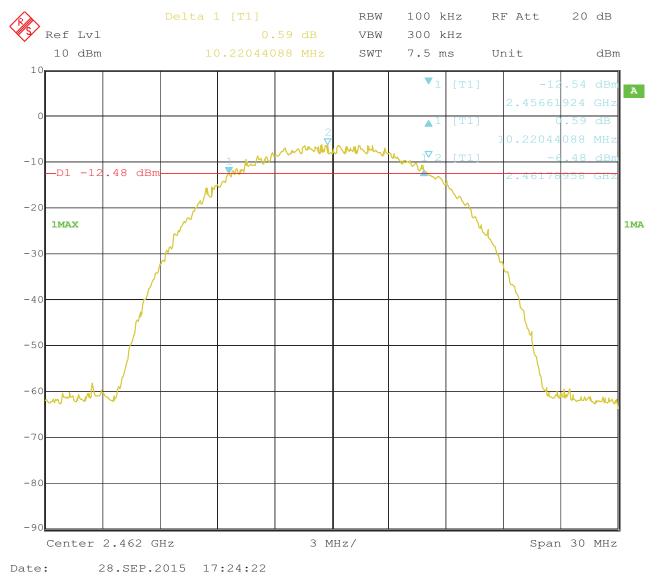
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as the strictly treated as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 45 of 104

# 6. 802.11b at 11Mbps of CH11



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 TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as the strictly treated as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



### 6dB Occupied Bandwidth

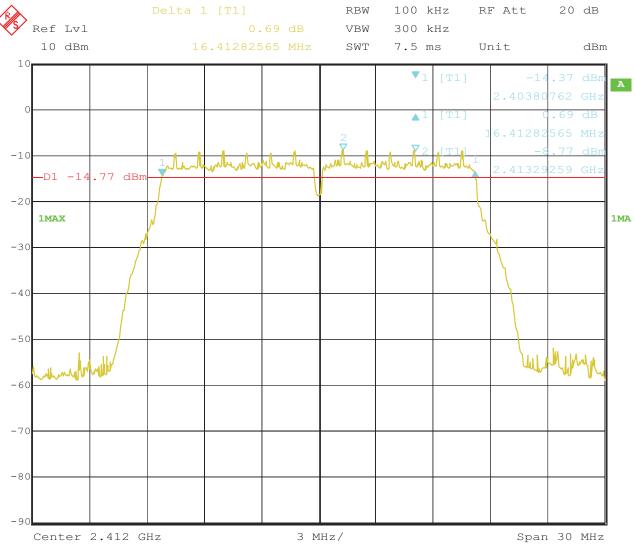
EUT	JT ]		AID		Model		TE116C0, D2-1161G	
Mode		80	2.11g		Input Voltage		DC	23.7V
Temperat	ure	24 0	leg. C,		Humidity		56%	% RH
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)	6 dE	3 Bandwidth (MHz)	М	(inimum Limit (MHz)	Pass/ Fail
1		2412	54		16.41		0.5	Pass
6		2437	54		16.41		0.5	Pass
11		2462	54		16.41		0.5	Pass

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate



Page 47 of 104

# Test Plots: 1. 802.11g at 54Mbps of CH01





28.SEP.2015 17:06:14

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

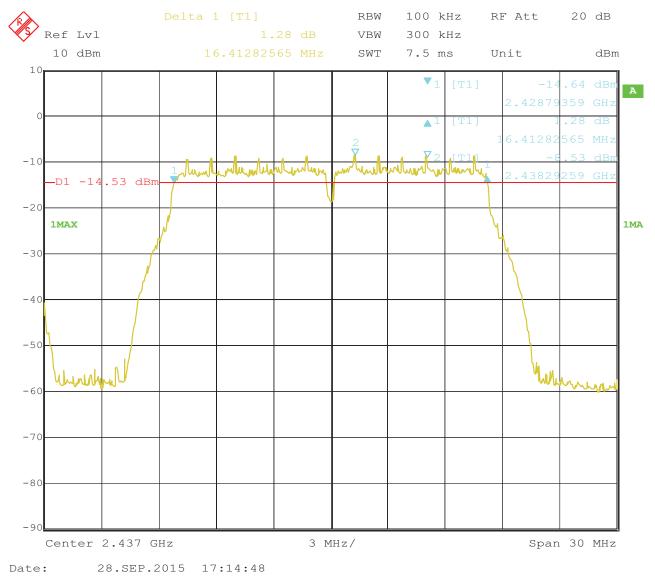
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it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

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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



Page 48 of 104

# 2. 802.11g at 54Mbps of CH06



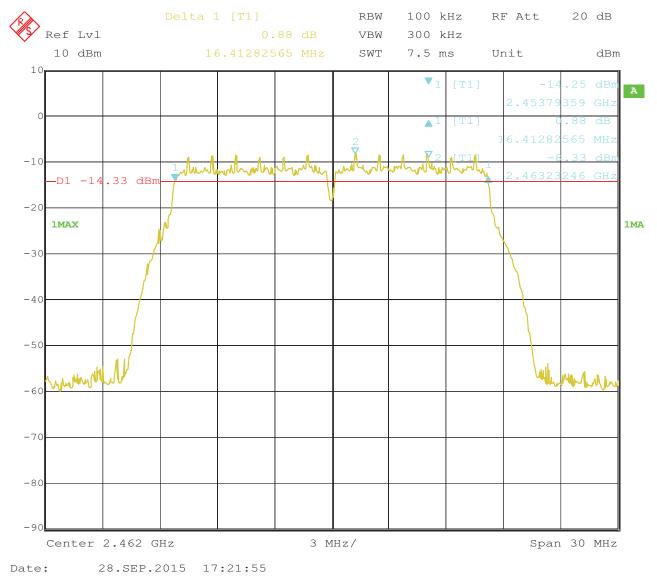
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as the strictly treated as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 49 of 104

# 3. 802.11g at 54Mbps of CH11



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 TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as the strictly treated as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



### 6dB Occupied Bandwidth

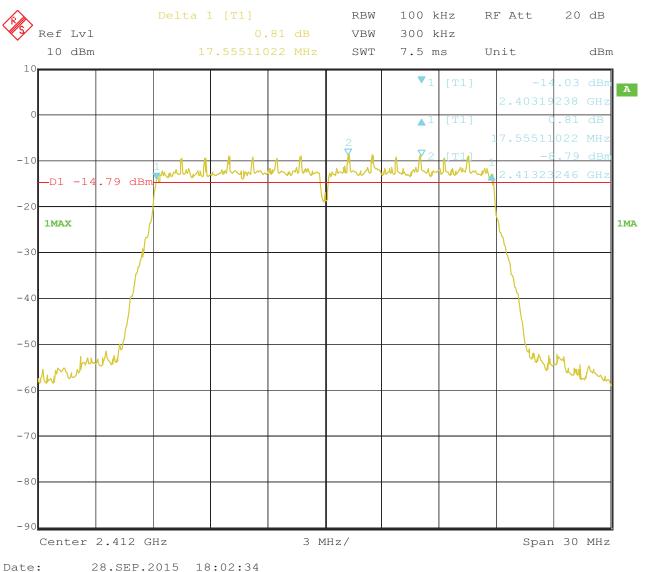
EUT	N		IID Model			TE116C0	, D2-1161G	
Mode		802.11	n HT20		Input Voltage		DC	3.7V
Temperat	ure	24 de	eg. C,		Humidity		56%	% RH
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)	6	dB Bandwidth (MHz)	N	finimum Limit (MHz)	Pass/ Fail
1		2412	6.5M	17.56			0.5	Pass
6	2437		6.5M		17.56		0.5	Pass
11		2462	6.5M		17.56		0.5	Pass

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate



Page 51 of 104

# **Test Plots:** 1. 802.11n at HT20 of CH01



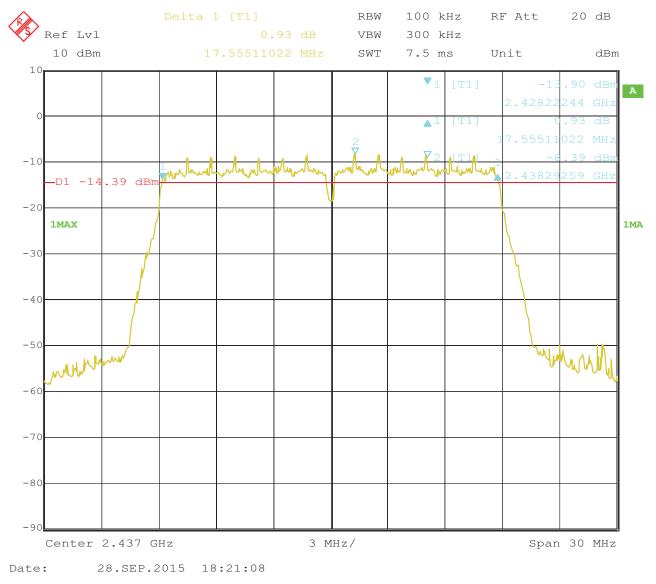
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as the strictly treated as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 52 of 104

## 2. 802.11n at HT20 of CH06



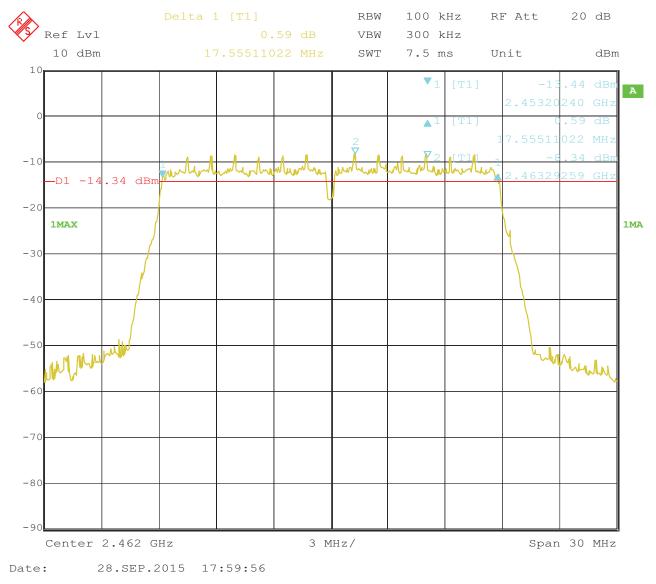
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as the strictly treated as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 53 of 104

## 3. 802.11n at HT20 of CH11



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 TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as the strictly treated as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



### 6dB Occupied Bandwidth

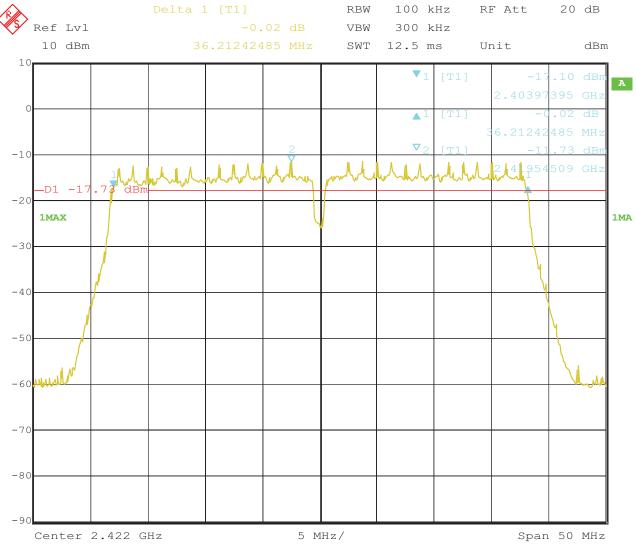
EUT		М	ID		Model	TE116C0, I	D2-1161G
Mode		802.11	n HT40		Input Voltage	DC3.	7V
Temperat	ure	24 de	eg. C,		Humidity	56%	RH
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)	6	dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass/ Fail
1		2422	6.5M		36.21	0.5	Pass
4		2437	6.5M		36.21	0.5	Pass
7		2452	6.5M		36.21	0.5	Pass

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate



Page 55 of 104

# Test Plots: 1. 802.11n at HT40 of CH01



Date:

28.SEP.2015 18:06:19

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

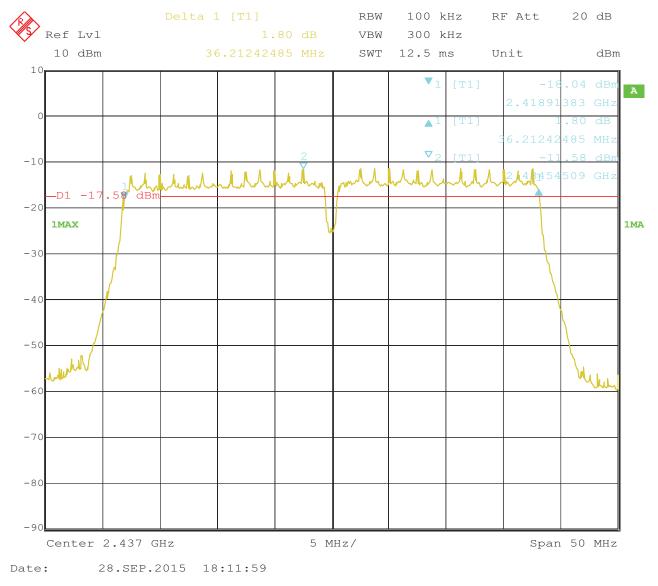
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it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

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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



Page 56 of 104

## 2. 802.11n at HT40 of CH04



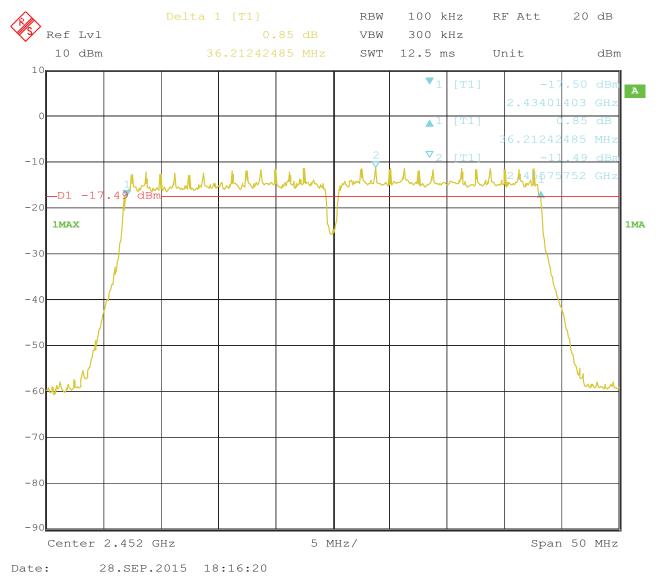
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as the strictly treated as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 57 of 104

## 3. 802.11n at HT40 of CH07



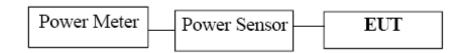
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as the strictly treated as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



# 8. Maximum Output Power

8.1 Test Setup



## 8.2 Limits of Maximum Output Power

The Maximum 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

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



### **8.4Test Results**

EUT	EUT MID			Model		TE116	5C0, D2-1161G
Mode	Mode 802.11b		Input Voltage		ge		DC3.7V
Temperat	ure	24 deg. C	,	Humidity	7		56% RH
Channel	Cha	annel Frequency (MHz)	Max. Power Output (dBm)		Po	wer Limit (dBm)	Pass/ Fail
1		2412	8.00			30	Pass
6	6 2437		8.18			30	Pass
11	11 2462			8.54		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:

Max. Power Output = Power Reading + Cable loss + Attenuator

3. The worse case was recorded

EUT	EUT MID		Model			TE116C0, D2-1161G		
Mode	Mode 802.11g		Input Voltage		e	1	DC3.7V	
Temperat	ure	24 deg. C,		Humidity		56% RH		
Channel	el Channel Frequency (MHz)		Max. Power Output (dBm)		Р	ower Limit (dBm)	Pass/ Fail	
1		2412	9.15			30	Pass	
6	6 2437		9.33			30	Pass	
11	11 2462			9.63		30	Pass	

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

2. The result basic equation calculation as follow:

Max. Power Output = Power Reading + Cable loss + Attenuator

3. The worse case was recorded

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



EUT	EUT MID			Model		TE116C0, D2-1161G	
Mode	Mode 802.11n (HT2		20) Input Voltage		;	DC3.7V	
Temperat	ure	24 deg. C,		Humidity		56% RH	
Channel	nel Channel Frequency (MHz)		Max. Power Output (dBm)		I	Power Limit (dBm)	Pass/ Fail
1		2412	9.25			30	Pass
6	6 2437			9.56		30	Pass
11	11 2462			9.69		30	Pass

Note: 1. At finial test to get the worst-case emission at 6.5Mbps of 11n HT20 for CH01, CH06 and CH11

2. The result basic equation calculation as follow:

Max. Power Output = Power Reading + Cable loss + Attenuator

3. The worse case was recorded

EUT	EUT MID			Model		TE116	C0, D2-1161G
Mode	Mode 802.11n (HT4		40)Input Voltage		;	]	DC3.7V
Temperat	ure	24 deg. C,	, Humidity			56% RH	
Channel	nel Channel Frequency (MHz)		Max. Power Output (dBm)		F	Power Limit (dBm)	Pass/ Fail
1		2422	8.96			30	Pass
4	4 2437		9.18			30	Pass
7	7 2452			9.39		30	Pass

Note: 1. At finial test to get the worst-case emission at 6.5Mbps of 11n HT40 for CH01, CH04 and CH7

2. The result basic equation calculation as follow:

Max. Power Output = Power Reading + Cable loss + Attenuator

3. The worse case was recorded

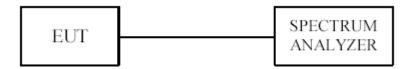
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



# 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.

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



### 9.4Test Result

EUT		MID		Model	Model		C0, D2-1161G
Mode		802.11b 1Mbps		Input Voltag	Input Voltage		DC3.7V
Temperature		24 deg. C,		Humidity		5	6% RH
Channel	Ch	annel Frequency (MHz)	Final RF Power Level (dBm)		Max	ximum Limit (dBm)	Pass/ Fail
				1Mbps			
1	2412			-16.31		8	Pass
6	2437			-16.78		8	Pass
11 2462			-19.36		8	Pass	

EUT		MID		Model	Model		C0, D2-1161G
Mode		802.11b 11Mbps		Input Voltage		Ι	DC3.7V
Temperat	ure	24 deg. C	,	Humidity	Humidity		6% RH
Channel	Cha	annel Frequency (MHz)	Final RF Power Level in (dBm)		Max	kimum Limit (dBm)	Pass/ Fail
					•		
				11Mbps			
1	2412			-8.64		8	Pass
6	6 2437			-11.87		8	Pass
11 2462			-11.68		8	Pass	

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate



EUT		MID		Model		TE116C0, D2-1161G	
Mode		802.11g 54Mbps		Input Voltage		DC3.7V	
Temperat	ure	24 deg. C,	, Humidity			56	% RH
Channel	Ch	annel Frequency (MHz)	Final RF Power Level in (dBm)		M	aximum Limit (dBm)	Pass/ Fail
				54Mbps		·	
1		2412		-16.55		8	Pass
6	5 2437		-16.55		8	Pass	
11	11 2462			-16.59		8	Pass

EUT		MID		Model		TE116C0, D2-1161G	
Mode		802.11n HT20 6.5Mbps		Input Voltage		DC3.7V	
Temperat	ure	24 deg. C,	, Humidity			56	% RH
Channel	Cha	annel Frequency	Final RF Power		Μ	laximum Limit	Pass/ Fail
Chaimer		(MHz)	L	level (dBm)		(dBm)	
				HT20			
1	2412			-16.32		8	Pass
6	2437			-17.31		8	Pass
11		2462		-17.49		8	Pass

EUT		MID		Model		TE116C0, D2-1161G	
Mode		802.11n HT40 6.5Mbps		Input Voltage		DC3.7V	
Temperature		24 deg. C,		Humidity	56		% RH
Channel	Channel Frequency (MHz)		Final RF Power Level (dBm)		M	laximum Limit (dBm)	Pass/ Fail
HT40							
1	2422		-20.15			8	Pass
4	2437		-20.09			8	Pass
7	2452		-19.73			8	Pass

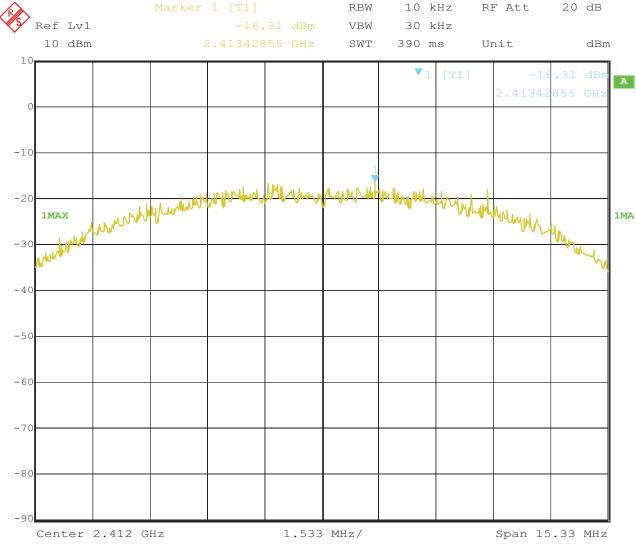
The report refers only to the sample tested and does not apply to the bulk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate

adopt any other remedies which may be appropriate.



### 9.5 Photo of Power Spectral Density Measurement

1.802.11b at 1Mbps of CH01





29.SEP.2015 10:35:11

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

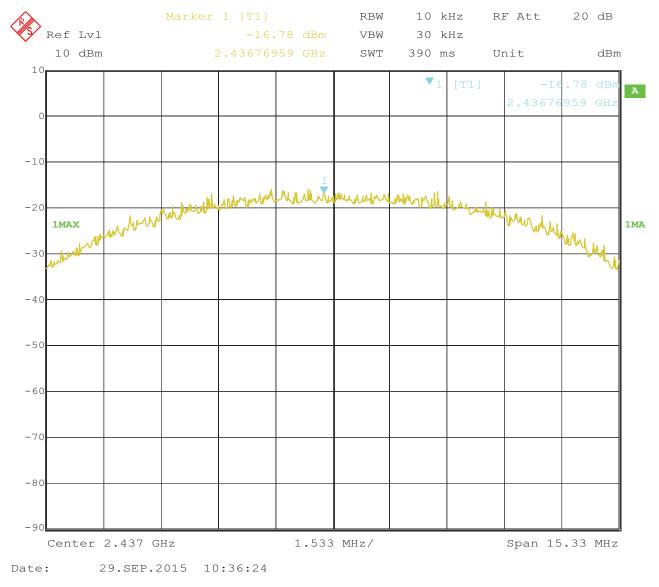
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it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

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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



Page 65 of 104

#### 2. 802.11b at 1Mbps at CH06



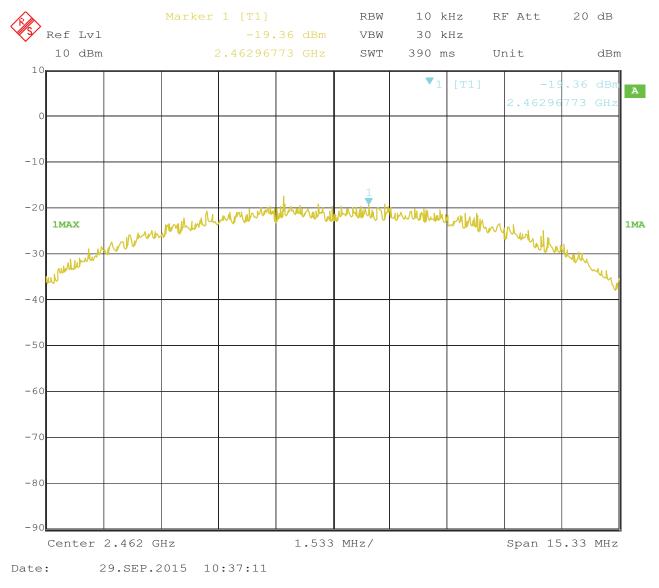
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as the strictly treated as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 66 of 104

### 3. 802.11b at 1Mbps of CH11



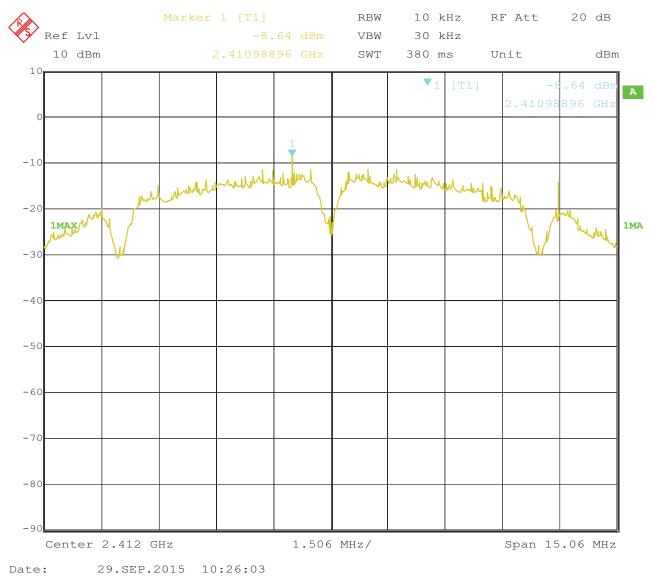
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 67 of 104

### 4. 802.11b at 11Mbps of CH1



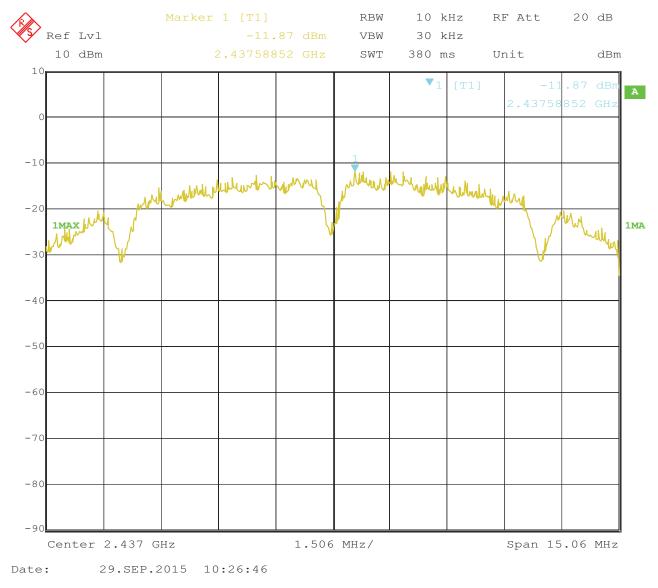
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as the strictly treated as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 68 of 104

### 5. 802.11b at 11Mbps of CH6



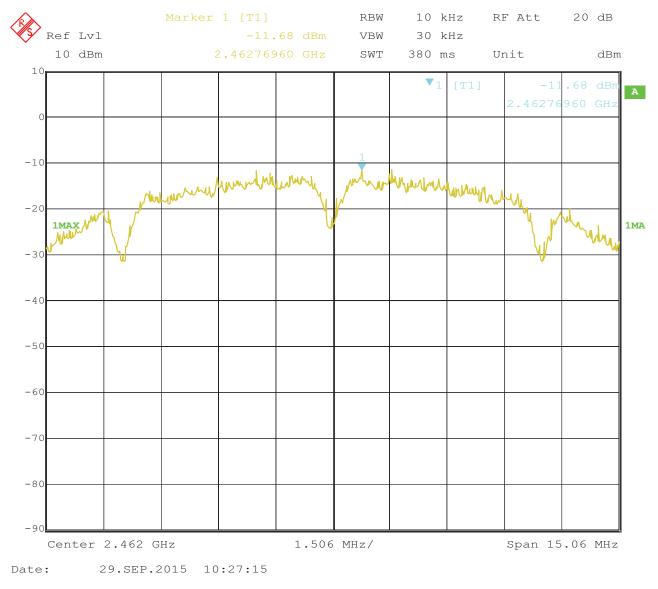
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as the strictly treated as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 69 of 104

### 6. 802.11b at 11Mbps of CH11



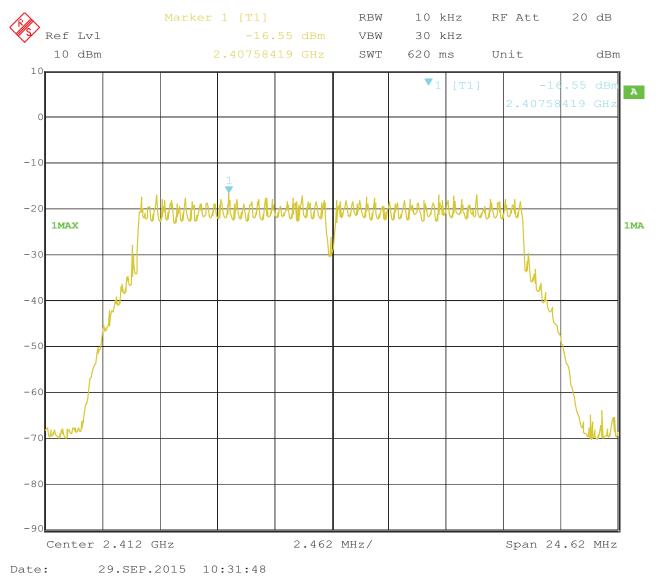
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as the strictly treated as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 70 of 104

# 7. 802.11g at 54Mbps of CH1



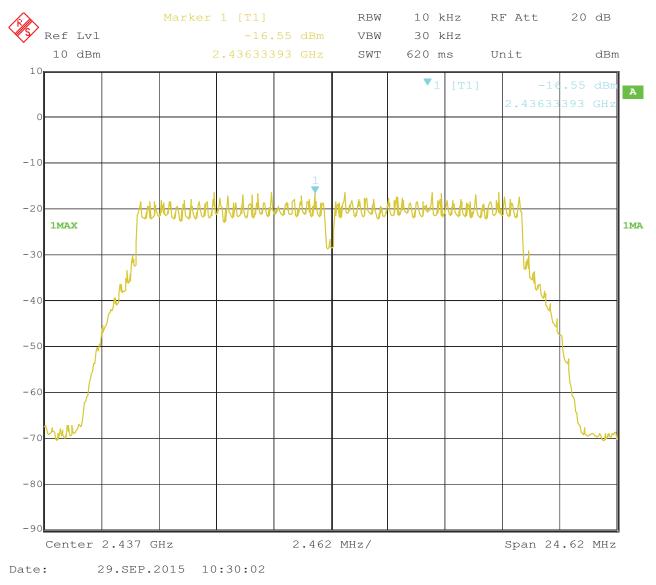
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as the strictly treated as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 71 of 104

### 8. 802.11g at 54Mbps of CH6



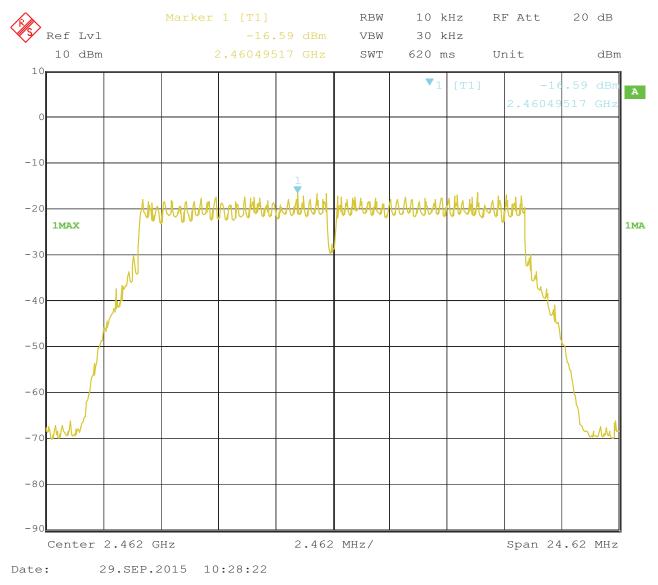
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as the strictly treated as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 72 of 104

# 9. 802.11g at 54Mbps of CH11



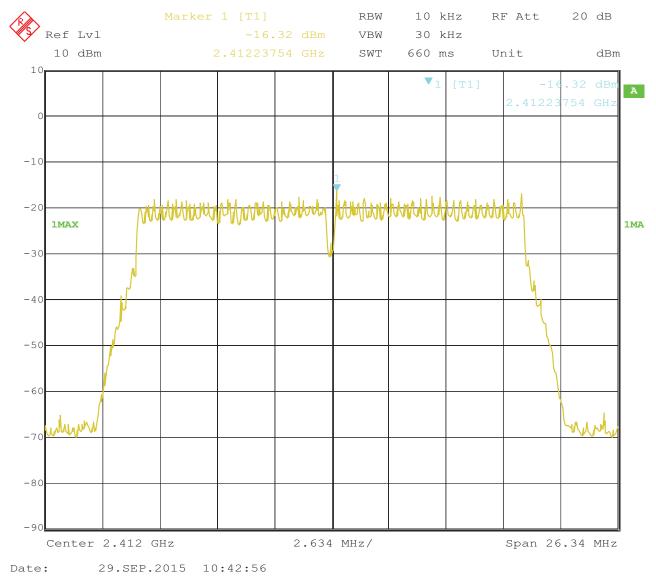
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as the strictly treated as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 73 of 104

## 10. 802.11n at HT20 of CH01



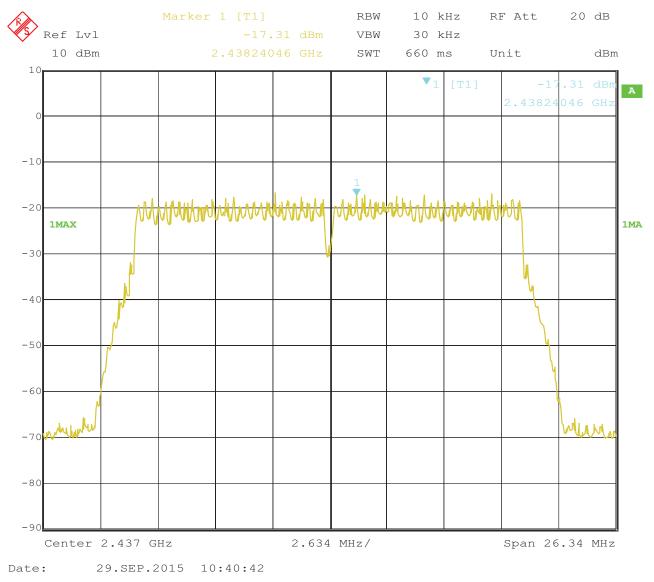
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 74 of 104

## 11. 802.11n at HT20 of CH06



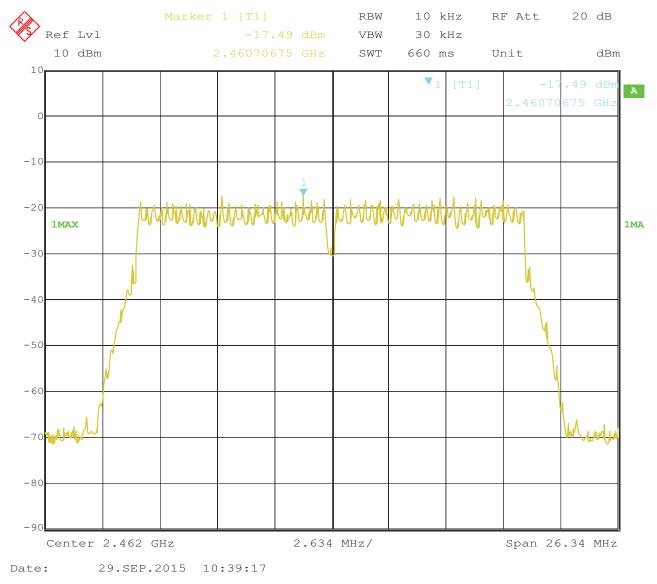
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 75 of 104

## 12. 802.11n at HT20 of CH11



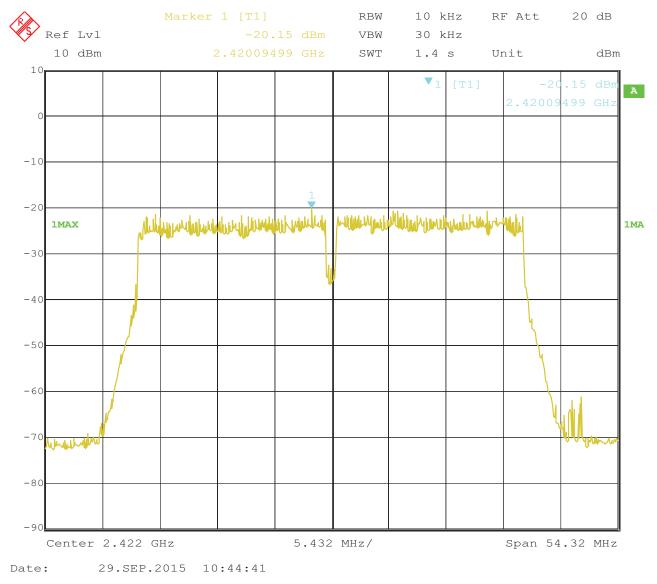
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 76 of 104

## 13. 802.11n at HT40 of CH01



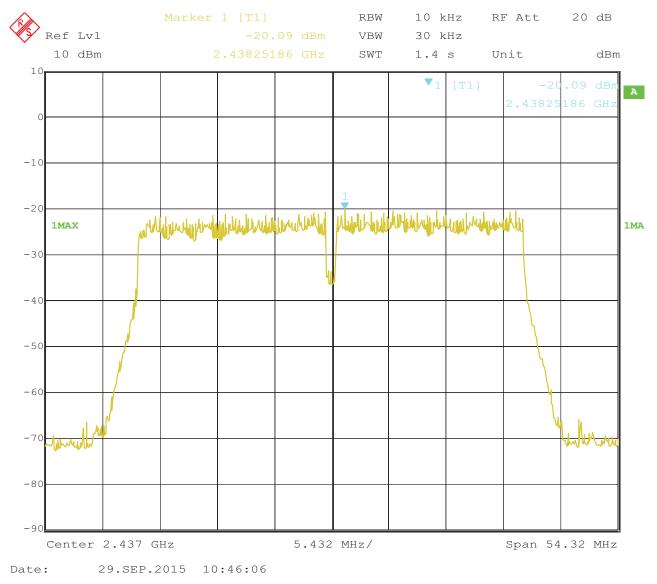
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 77 of 104

## 14. 802.11n at HT40 of CH04



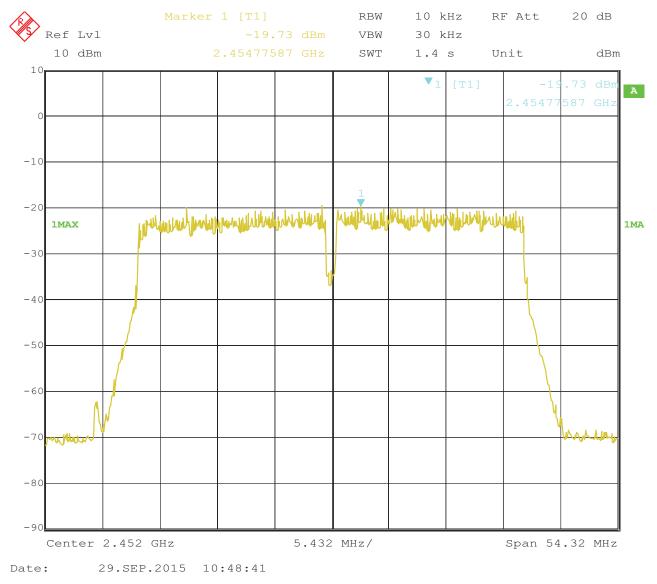
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 78 of 104

## 15. 802.11n at HT40 of CH07



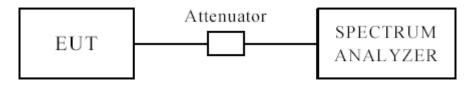
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced ratio in the initial in the strictly treated as such that the strictly treated as such as the strictly treated as the strictly treated as strictly treated as the strictly treated as th 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



# **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=VBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=1MHz 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.

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.



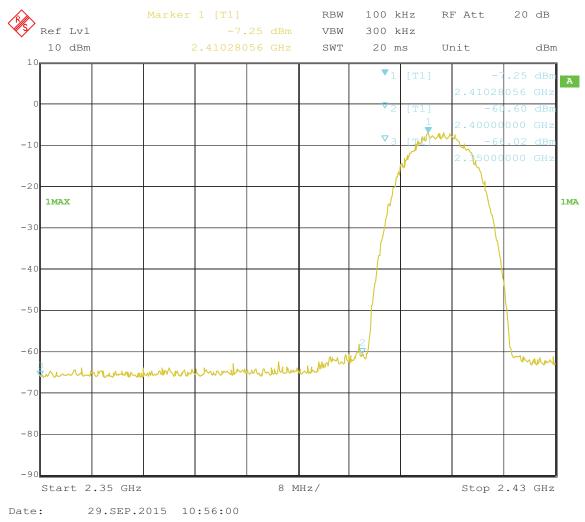
## For 802.11b mode

### CH01 at 11Mbps

## 10.4 Band-edge and Restricted band Measurement

EUT		MID	Model	TE116C0, D2-1161G
Mode	Keeping	g Transmitting	Input Voltage	DC3.7V
Temperature	24	deg. C,	Humidity	56% RH
Test Result:		Pass	Detector	РК
2400	PK (dBµV/m)	57.4	Limit	74(dBµV/m)
	AV ( $dB\mu V/m$ )	38.9	Limit	54(dBµV/m)
2390	PK (dBµV/m)	43.4	Limit	74(dBµV/m)
	AV ( $dB\mu V/m$ )		Lillit	54(dBµV/m)

### **Test Figure:**



Note: The Max. FS in Restrict Band are measured in conventional method.

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

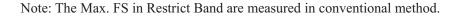
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it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



## CH11 at 11Mbps

10.4 Band-edge and Restricted band Measurement

EUT		MID		M	odel	TE116C0, D2-1161G				
Mode	Kee	Keeping Transmitting		Input	Input Voltage		DC3.7V			
Temperature	24 deg. C,		Hur	Humidity		56% RH				
Test Result:		Pas	SS		Det	tector			РК	
2483.5	PK (dBµV/	m)	44.3	3	T	imit		74(	dBµV/m)	
	AV $(dB\mu V/2)$	m)			L	IIIIIt		54(	(dBµV/m)	
Fest Figure:		•			•		•			
		Marker	1 [T1]		RBW	100 kH		RF Att	20 dB	
Ref L 10 d			-6. 2.461723	.76 dBm 345 GHz	VBW SWT	300 kH 12.5 ms		Unit	dBm	
10					-	_			1	
						•1	[T1]	-0	.76 dBm 345 GHz	A
0						▼2	[T1]	-64	4.94 dBm	
		Typon						2.48350	000 GHz	
-10	- John Mart		May							
	A COL		- H							
-20			<u> </u>							1MA
										THE
-30				4						
				۲.						
-40										
-50										
-50										
- 60										
				Un	munu	h-12 the	morial	mahand	mil	
-70										
-80										
				1	1			1	1	



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

This report refers only to the sample tested and does not apply to the bluk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of accertation 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



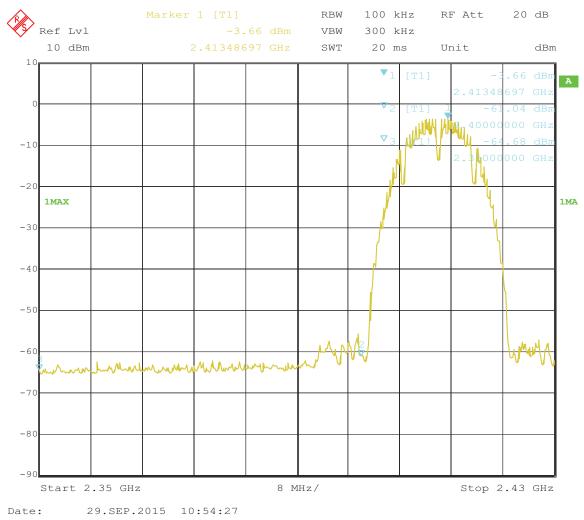
## For 802.11b mode

CH01 at 1Mbps

## 10.4 Band-edge and Restricted band Measurement

EUT		MID	Model	TE116C0, D2-1161G
Mode	Keeping	g Transmitting	Input Voltage	DC3.7V
Temperature	24	deg. C,	Humidity	56% RH
Test Result:		Pass	Detector	РК
2400	PK (dBµV/m)	58.2	Limit	74(dBµV/m)
	AV ( $dB\mu V/m$ )	39.1	Limit	54(dBµV/m)
2390	PK (dBµV/m)	43.7	Limit	74(dBµV/m)
	AV ( $dB\mu V/m$ )			54(dBµV/m)

**Test Figure:** 



Note: The Max. FS in Restrict Band are measured in conventional method.

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

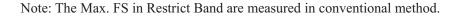
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it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



## CH11 at 1Mbps

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

EUT		MID	Model	TE116C0, D2-1161G
Mode	Keepin	g Transmitting	Input Voltage	DC3.7V
Temperature	2	4 deg. C,	Humidity	56% RH
Test Result:		Pass	Detector	РК
2483.5	PK (dBµV/m)	44.7	T · · ·	74(dBµV/m)
	AV (dBµV/m)		Limit	54(dBµV/m)
Test Figure:				
Ref L 10 d	vl	cer 1 [T1] -3.31 dBm 2.46152305 GHz	RBW 100 k VBW 300 k SWT 12.5 m	Hz
10			▼1	
0				[T1] -3.31 dBm A 2.46152305 GHz
	mun f	WWWW	♥ 2	[T1] -64.26 dBm 2.48350000 GHz
-10	J. N			
1MAX	N I			1M24
-30		ų.		
- 40				
-60				
-70		· · · · · · · · · · · · · · · · · · ·	W. W	whather when the
-80				
-90				
	2.45 GHz	5 M	Hz/	Stop 2.5 GHz



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

This report refers only to the sample tested and does not apply to the bluk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of accertation 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



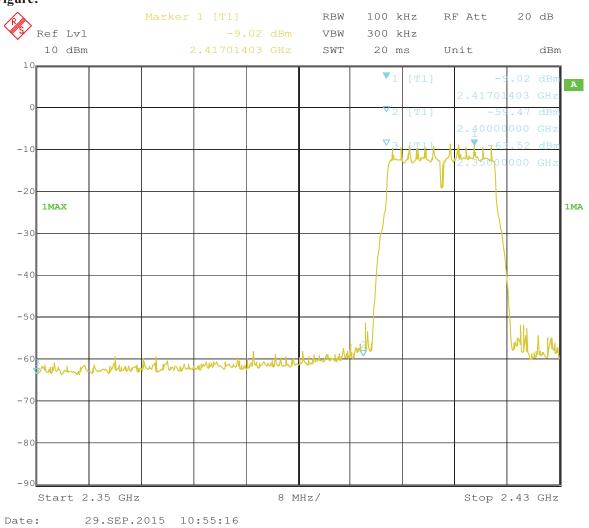
## For 802.11g mode

### CH01 at 54Mbps

## 10.4 Band-edge and Restricted band Measurement

EUT		MID	Model	TE116C0, D2-1161G
Mode	Keeping	g Transmitting	Input Voltage	DC3.7V
Temperature	24	deg. C,	Humidity	56% RH
Test Result:		Pass	Detector	РК
2400	PK (dBµV/m)	60.9	T ::4	74(dBµV/m)
	AV ( $dB\mu V/m$ )	39.8	Limit	54(dBµV/m)
2390	PK (dBµV/m)	46.2	Limit	74(dBµV/m)
	AV (dBµV/m)		Liifiit	54(dBµV/m)





Note: The Max. FS in Restrict Band are measured in conventional method.

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

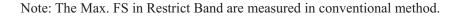
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it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



## CH11 at 54Mbps

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

EUT		MID	Мо	del		TE1160	C0, D2-11	61G
Mode	Keeping	Keeping Transmitting		/oltage	DC3.7V			
Temperature	24	24 deg. C,		idity		5	6% RH	
Test Result:		Pass	Dete	ector			РК	
2483.5	PK (dBµV/m)	48.7	<b>T</b> · · ·			74(dBµ	V/m)	
	AV (dBµV/m)		Limit			54(dBµ	V/m)	
Test Figure:				-1				
Ref I 10 d	vl	ker 1 [T1] -8.56 dBm 2.46322645 GHz	RBW VBW SWT	100 kH 300 kH 12.5 ms	Ηz	Att	20 dB dBm	L
10								1
				• 1	[T1]	-8 2.46322	.56 dBm 645 GHz	A
0				₹2	[T1]	-58	.38 dBm 000 GHz	
-10						2.48350	000 GHZ	
10	Malalaha	Muluhank						
-20	V							
1MAX	/	4						1MA
-30								
-40								
-50								
			dates and	2 7				
-60			<u>⊷</u> ,~	or the second states	n-origination of the second	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	www.	
-70								
- / 0								
-80								
-90								ļ
Start	2.45 GHz	5 M	Hz/			Stop	2.5 GHz	



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

This report refers only to the sample tested and does not apply to the bluk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of accertation 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



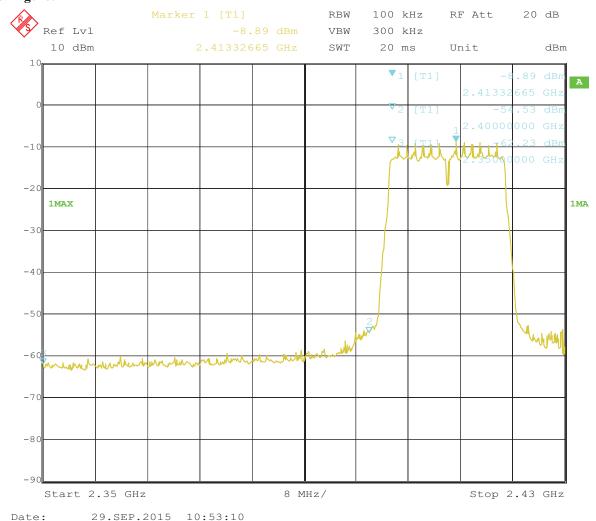
## For 802.11n (HT20) mode

CH01 at 6.5Mbps

## 10.4 Band-edge and Restricted band Measurement

EUT		MID	Model	TE116C0, D2-1161G
Mode	Keeping	g Transmitting	Input Voltage	DC3.7V
Temperature	24	deg. C,	Humidity	56% RH
Test Result:		Pass	Detector	РК
2400	PK (dBµV/m)	61.1	T insit	74(dBµV/m)
	AV ( $dB\mu V/m$ )	41.8	Limit	54(dBµV/m)
2390	PK (dBµV/m)	46.5	Limit	74(dBµV/m)
	AV ( $dB\mu V/m$ )		Liillit	54(dBµV/m)





Note: The Max. FS in Restrict Band are measured in conventional method.

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

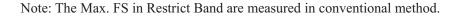
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it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



## CH11 at 6.5Mbps

#### 104 Band-edge and Restricted band Measurement

EUT		MID	Model	TE116C0, D2-1161G		
Mode	Keeping Transmitting 24 deg. C,		Input Voltage	DC3.7V		
Temperature			Humidity	56% RH		
Test Result:		Pass	Detector	РК		
2483.5	PK ( $dB\mu V/m$ )	50.6	Limit	74(dBµV/m)		
	$AV \left( dB\mu V/m \right)$		Lillint	54(dBµV/m)		
Test Figure:						
Ref Lu	rl	er 1 [T1] -8.63 dBm	RBW 100 VBW 300	kHz		
10 dE	3m	2.46322645 GHz	SWT 12.5	ms Unit dBm		
			▼ 1	. [T1] -8.63 dBm 2.46322645 GHz		
0			¥ 2	2.48350000 GHz		
-10	the hash the hard of the	halphaland				
-20 <b>1MAX</b>				1MA		
-30						
- 40						
- 60		Wu Vu	Mahmun und mark	disanatan karan karan		
				all was an all constant the colline of a		
-70						
- 80						
-90		5 Mi		Stop 2.5 GHz		



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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third not we contents of the report. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



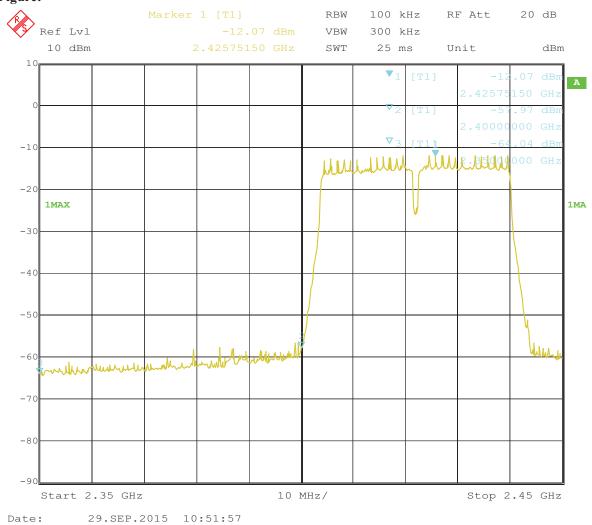
## For 802.11n (HT40) mode

CH01 at 6.5Mbps

## 10.4 Band-edge and Restricted band Measurement

EUT		MID	Model	TE116C0, D2-1161G
Mode	Keeping	g Transmitting	Input Voltage	DC3.7V
Temperature	24	l deg. C,	Humidity	56% RH
Test Result:		Pass	Detector	РК
2400	PK (dBµV/m)	63.2	T insit	$74(dB\mu V/m)$
	AV ( $dB\mu V/m$ )	44.5	Limit	$54(dB\mu V/m)$
2390	PK (dBµV/m)	47.3	Limit	74(dBµV/m)
	AV ( $dB\mu V/m$ )		Liinit	54(dBµV/m)





Note: The Max. FS in Restrict Band are measured in conventional method.

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

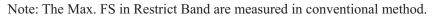
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it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



## CH7 at 6.5Mbps

10.4 Band-edge and Restricted band Measurement

EUT		MID	Model	TE116C0, D2-	TE116C0, D2-1161G		
Mode	Keeping	g Transmitting	Input Voltage	DC3.7V			
Temperature	24	l deg. C,	Humidity	56% RH	ł		
Test Result:	Pass		Detector	РК			
2483.5	PK (dBµV/m)	56.4	<b>.</b>	74(dBµV/	m)		
	AV (dBµV/m)	37.7	Limit	54(dBµV/	m)		
est Figure:			L	1			
Ref Lv		er 1 [T1] -11.63 dBm	RBW 100 kH VBW 300 kH				
10 dBr	m	2.44949900 GHz	SWT 17.5 ms	Unit dB	m		
10			▼1 [	[T1] -11.63 dBr 2.44949900 GH	A		
0			₹2 [	T1] -59.66 dBr 2.48350000 GH2			
-10	Alland hollow	ing millither will	M		-		
-20					1MA		
-30							
-40			Y				
-50				2			
-60				<sup>₩₽₽</sup> ₩ <sup>₩</sup> ₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩	7		
-70							
-80							



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

This report refers only to the sample tested and does not apply to the bluk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of accertation 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



## 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 1.71dBi.

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



Page 91 of 104

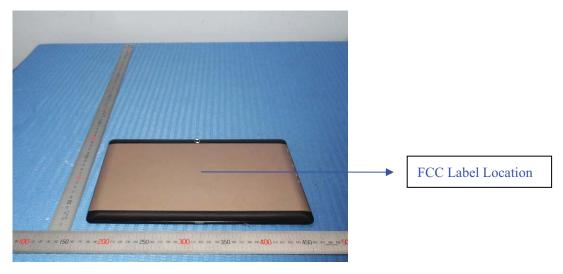
## 12.0 FCC ID Label

## FCC ID: 2ABDT-TE116C0

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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:



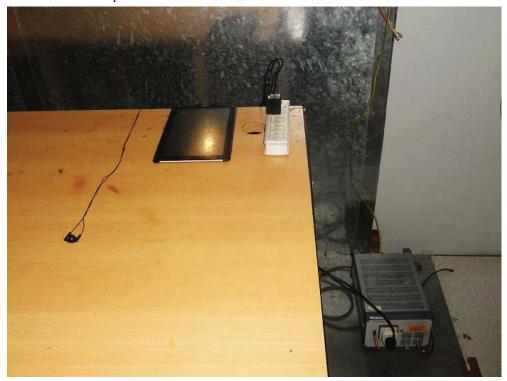
The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.



### Photo of testing 13.0

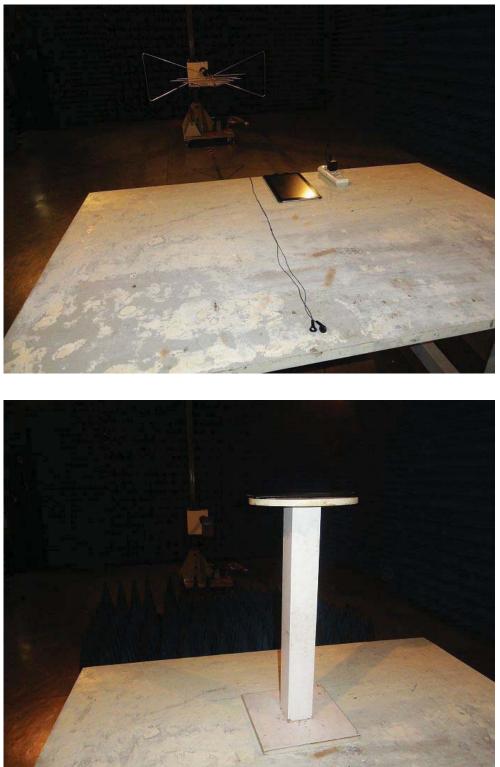
Conducted Emission Test Setup:



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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate



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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate



## **Photographs – EUT**

Outside view

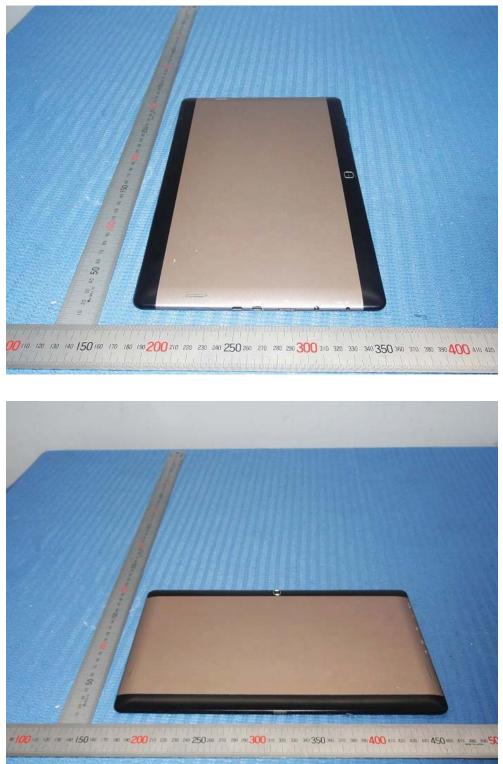


The report refers only to the sample tested and does not apply to the bulk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate



Page 95 of 104

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third native concerning the contents of the report. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to





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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third native concerning the contents of the report. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 97 of 104

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third native concerning the contents of the report. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 98 of 104

Outside view

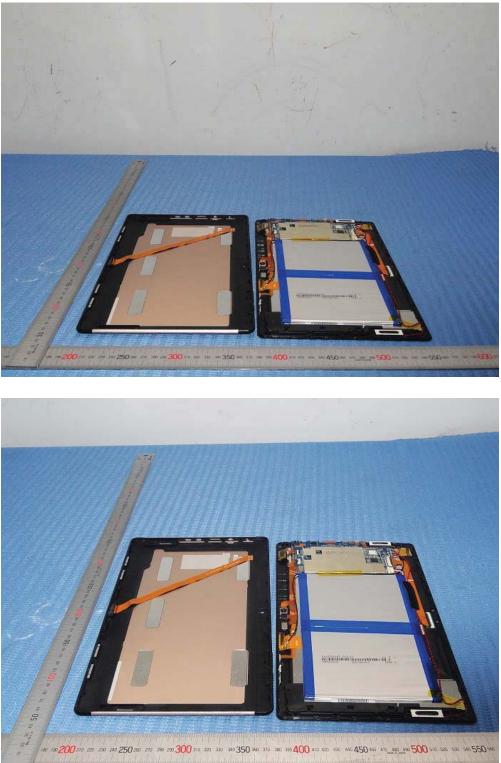


The report refers only to the sample tested and does not apply to the bulk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third native concerning the contents of the report. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to



Page 99 of 104

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate



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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate



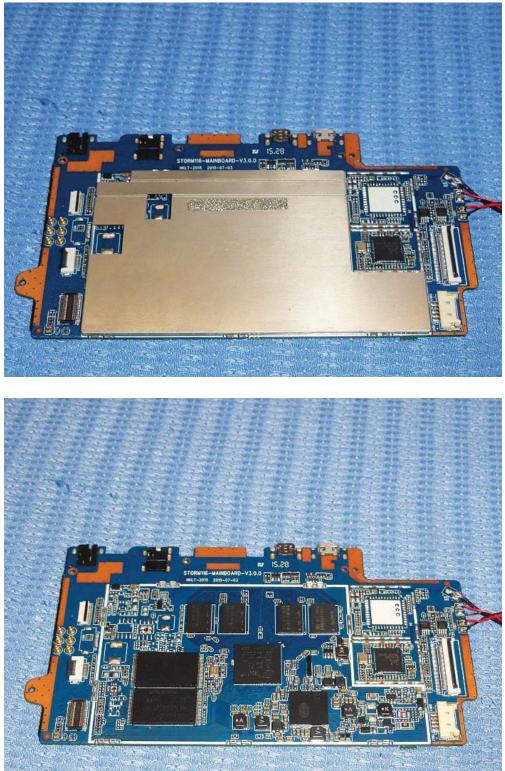
Inside view



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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate

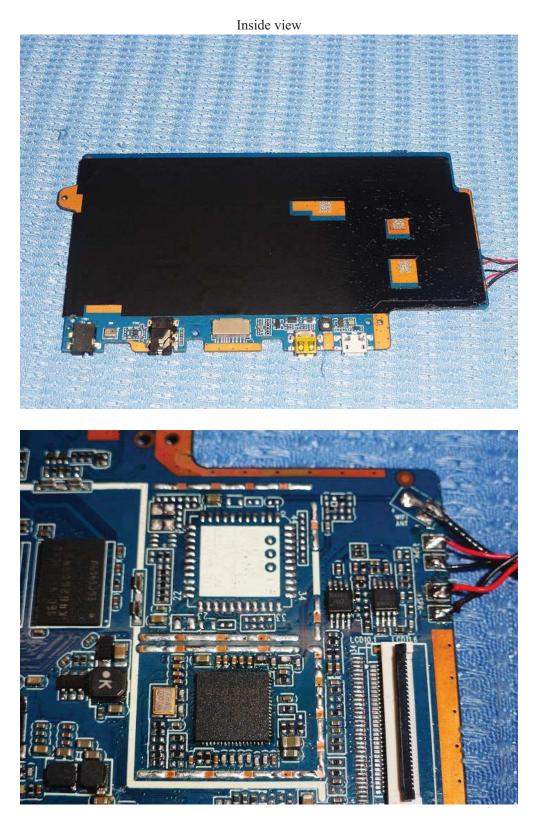


Inside view



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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate



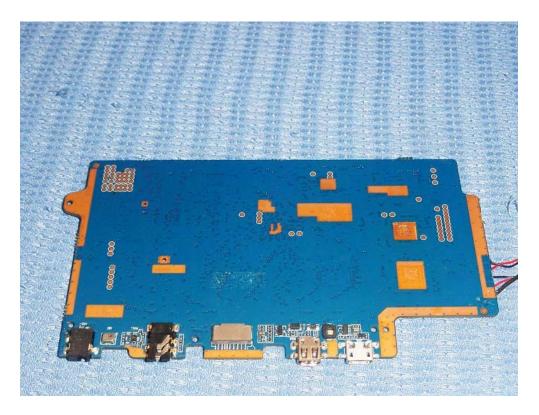


The report refers only to the sample tested and does not apply to the bulk. This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate



Page 104 of 104

Inside view



End of the report

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 TESTING LABORATORIES. 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 TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. 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 TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate