



卓時檢測
TIMEWAY TESTING LABORATORY



ISO/IEC17025 Accredited Lab.

Report No: FCC1005212

File reference No:

2010-06-24

Applicant: Longhorn Security Technology Co.,Ltd

Product: Outdoor Intelligence Triple Technology Intruder Detector

Model No: LH-913C

Trademark:



Longhorn

Test Standards: FCC Part 15 Subpart C, Paragraph 15.245

Test result:

It is herewith confirmed and found to comply with the requirements set up by ANSI C63.4&FCC Part 15 Subpart C, Paragraph 15.245 regulations for the evaluation of electromagnetic compatibility

Approved By

Jack Chung

Jack Chung
Manager

Dated: June. 24 .2010

Results appearing herein relate only to the sample tested

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

SHENZHEN TIMEWAY TECHNOLOGY CONSULTING CO LTD

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

Tel (755) 83448688

Fax (755) 83442996



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 meets with ISO/IEC-17025 requirements, which is approved by CNAS. This approval result is accepted by MRA of APLAC.

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

CNAS-LAB Code: L2292

The EMC Laboratory has been assessed and in compliance with CNAS-CL01 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:1999 General Requirements) for the Competence of testing Laboratories.

FCC-Registration No.: 899988

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

IC- Registration No.: IC5205A-01

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 No.: IC 5205A-01.

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

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

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



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	4
1.5	Test Duration	5
1.6	Test Uncertainty	5
1.7	Test By	5
2.0	List of Measurement Equipment	5
3.0	Technical Details	7
3.1	Summary of Test Results	7
3.2	Test Standards	7
4.0	EUT Modification	7
5.0	Power Line Conducted Emission Test	8
5.1	Schematics of the Test	8
5.2	Test Method and Test Procedure	8
5.3	Configuration of the EUT	8
5.4	EUT Operating Condition	9
5.5	Conducted Emission Limit	9
5.6	Test Result	9
6.0	Radiated Emission test	11
6.1	Test Method and Test Procedure	11
6.2	Configuration of the EUT	11
6.3	EUT Operation Condition	11
6.4	Radiated Emission Limit	12
6.5	Test Result	12
7.0	Band Edge	19
7.1	Test Method and Test Procedure	19
7.2	Radiated Test Setup	19
7.3	Configuration of the EUT	19
7.4	EUT Operating Condition	19
7.5	Band Edge Limit	20
7.6	Band Edge Test Result	20
8.0	20dB Bandwidth	22
9.0	Maximum Permissible Exposure	23
10.0	FCC ID Label	25
11.0	Photo of Test Setup and EUT View	26

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

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

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



1.0 General Details


1.1 Test Lab Details

Name : SHENZHEN TIMEWAY TECHNOLOGY CONSULTING CO LTD
Address: 5/F,Block 4, Anhua Industrial Zone.,No.8 TaiRan Rd.CheGongMiao,FuTian District,
Shenzhen,CHINA.
Telephone: (755) 83448688
Fax: (755) 83442996
Site on File with the Federal Communications Commission – United States
Registration Number: 899988
For 3m & 10 m OATS
Site Listed with Industry Canada of Ottawa, Canada
Registration Number: IC: 5205A-01
For 3m & 10 m OATS

1.2 Applicant Details

Applicant: Longhorn Security Technology Co.,Ltd
Address: New and High Technology Industrial Park,
Guangming, Wan Dai Hengguangming, Shenzhen, China
Telephone: +86-755-33265551
Fax: +86-755-33265577

1.3 Description of EUT

Product: Outdoor Intelligence Triple Technology Intruder Detector
Brand Name:  Longhorn
Model Number: LH-913C
Additional Model Name N/A
Rating: DC 9-16V, 0.4W
Operation Frequency 10.525GHz
Frequency Tuning 10.525GHz
Antenna Designation A permanent fixed antenna, which is built-in, designed as an indispensable part of the EUT.

1.4 Submitted Sample: 1 Sample

1.5 Test Duration

2010-5-19 to 2010-06-24

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

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

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



1.6 Test Uncertainty

Conducted Emissions Uncertainty = $\pm 3.0\text{dB}$ Radiated Emissions Uncertainty = $\pm 6.0\text{dB}$

1.7 Test Engineer

The sample tested by Terry Tang

Print Name: Terry Tang

2.0	Test Equipments				
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
ESPI Test Receiver	ROHDE&SCHWARZ	ESPI 3	100379	2009-12-05	2010-12-04
TWO Line-V-NETW	ROHDE&SCHWARZ	EZH3-Z5	100294	2009-12-05	2010-12-04
TWO Line-V-NETW	ROHDE&SCHWARZ	EZH3-Z5	100253	2009-12-05	2010-12-04
Ultra Broadband ANT	Schwarebeck	VULB9163	9163/340	2010-04-18	2011-04-17
ESDV Test Receiver	ROHDE&SCHWARZ	ESDV	100008	2009-03-30	2011-03-29
Impuls-Begrenzer	ROHDE&SCHWARZ	ESH3-Z2	100281	2010-02-25	2011-02-24
System Controller	CT	SC100	-	2010-02-25	2011-02-24
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170265	2009-08-15	2010-08-14
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-631	2009-07-02	2010-07-01
Spectrum Analyzer	ROHDE&SCHWARZ	FSP40	100012	2009-09-21	2010-09-20
Power Amplifier	AR	150W1000	300999	2010-02-25	2011-02-24
Loop Antenna	EMCO	6507	102615	2010-04-26	2011-04-25
ESPI Test Receiver	ROHDE&SCHWARZ	ESI26	838786/013	2010-02-25	2011-02-24
3m OATS	--	--	N/A	2010-02-25	2011-02-24

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

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

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



3.0 Technical Details

3.1 Summary of test results

The EUT has been tested according to the following specifications:			
Standard	Test Type	Result	Notes
FCC Part 15, Paragraph 15.207	Conducted Emission Test	PASS	Complies
FCC Part 15 Subpart C Paragraph 15.245 Limit	Field Strength of Fundamental	PASS	Complies
FCC Part 15, Paragraph 15.209	Radiated Emission Test	PASS	Meets Class B Limit
Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the Radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).	Band Edge Test	PASS	The field strength of any Emissions, which appear Outside of this band, shall not exceed the general Radiated emission limits in Section 15.209.

3.2 Test Standards

FCC Part 15 Subpart C, Paragraph 15.245

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.

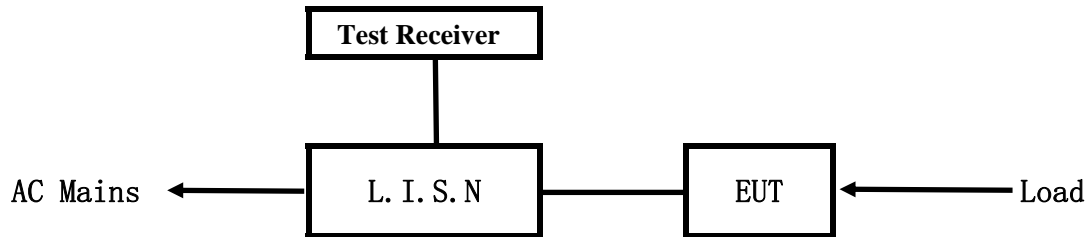
This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co.,Ltd. It may not be reproduced in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send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

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



5. Power Line Conducted Emission Test

5.1 Schematics of the test

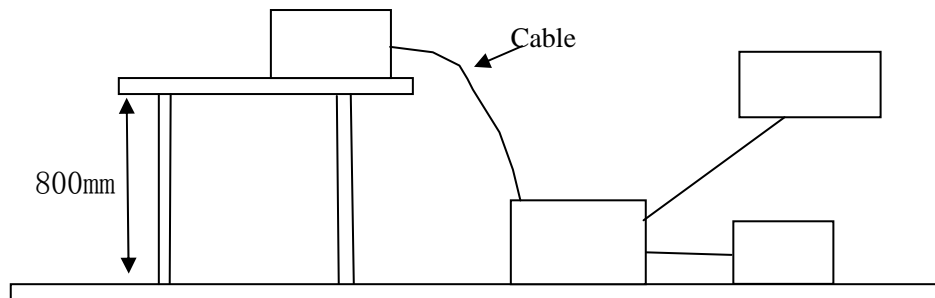


EUT: Equipment Under Test

5.2 Test Method and test Procedure

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

Block diagram of Test setup



5.3 Configuration of The EUT

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

Note: EUT can be powered by vehicle with 12V electrical system or batteries. During radiated emission test, EUT power by a regulated DC power supply because it produced more emission at this time.

A. EUT

Device	Manufacturer	Model	FCC ID
Outdoor Intelligence Triple Technology Intruder Detector	Longhorn Security Technology Co.,Ltd	LH-913C	YGWLH-913C

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

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

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



B. Internal Device

Device	Manufacturer	Model	FCC ID/DOC
N/A			

C. Peripherals

Device	Manufacturer	Model	FCC ID/DOC	Cable
N/A	N/A	-	N/A	N/A

5.4 EUT Operating Condition

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

5.5 Power line conducted Emission Limit according to Paragraph 15.207

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

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

5.6 Test Results

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

N/A = not applicable. Due to DC Operation

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

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

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

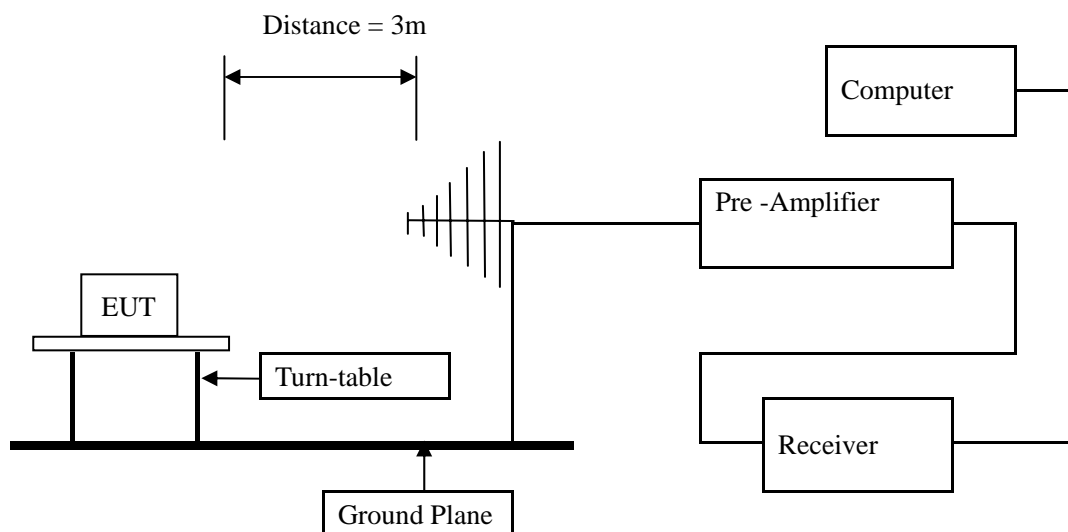


6 Radiated Emission Test

6.1 Test Method and test Procedure:

- (1) The EUT was tested according to ANSI C63.4 –2003. The radiated test was performed at Timeway Laboratory. This site is on file with the FCC laboratory division, Registration No.899988
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.4-2003.
- (3) The frequency spectrum from 30 MHz to 1 GHz was investigated. ,All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 120 kHz. VBW 300KHz .All readings are above 1 GHz, peak values with a resolution bandwidth of 1MHz. VBW 3MHz with a resolution bandwidth of 1 MHz . Measurements were made at 3 meters.
- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limit), and are distinguished with a "QP" in the data table.
- (6) The antenna polarization : Vertical polarization and Horizontal polarization.

Block diagram of Test setup



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 Technology Consulting Co., Ltd. It may not be reproduced in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the Shenzhen Timeway Technology Consulting Co., Ltd. to his customer, supplier or other persons directly concerned. Shenzhen Timeway Technology Consulting Co., Ltd. will not, without the consent of the client, enter into any discussion of correspondence with any third party concerning the contents of the report.

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



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:

A FCC Part 15 Subpart C Paragraph 15.245 Limit

Fundamental Frequency (MHz)	Field Strength of Fundamental (3m)
10500-10550	2500 mV/m
	Field Strength of Harmonics (3m)
	Harmonic emissions in the restricted bands at and above 17.7 GHz: 7.5mV/m
	Harmonic emissions in the non-restricted bands: 25mV/m

- Note:
1. RF Field Strength (dBuV) = 20 log RF Voltage (uV)
 2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
 3. The emission limit in this paragraph is based on measurement instrumentation employing an average detector.

B. Frequencies in restricted band are complied to limit on Paragraph 15.209.

Frequency Range (MHz)	Distance (m)	Field strength (dB μ V/m)
0.009-0.490	300	2400/F(kHz)
0.490-1.705	30	24000/F(kHz)
1.705-30.0	30	30
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 tighter limit applies at the band edges.
 3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT
- Test Uncertainly: ± 6 dB

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

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

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



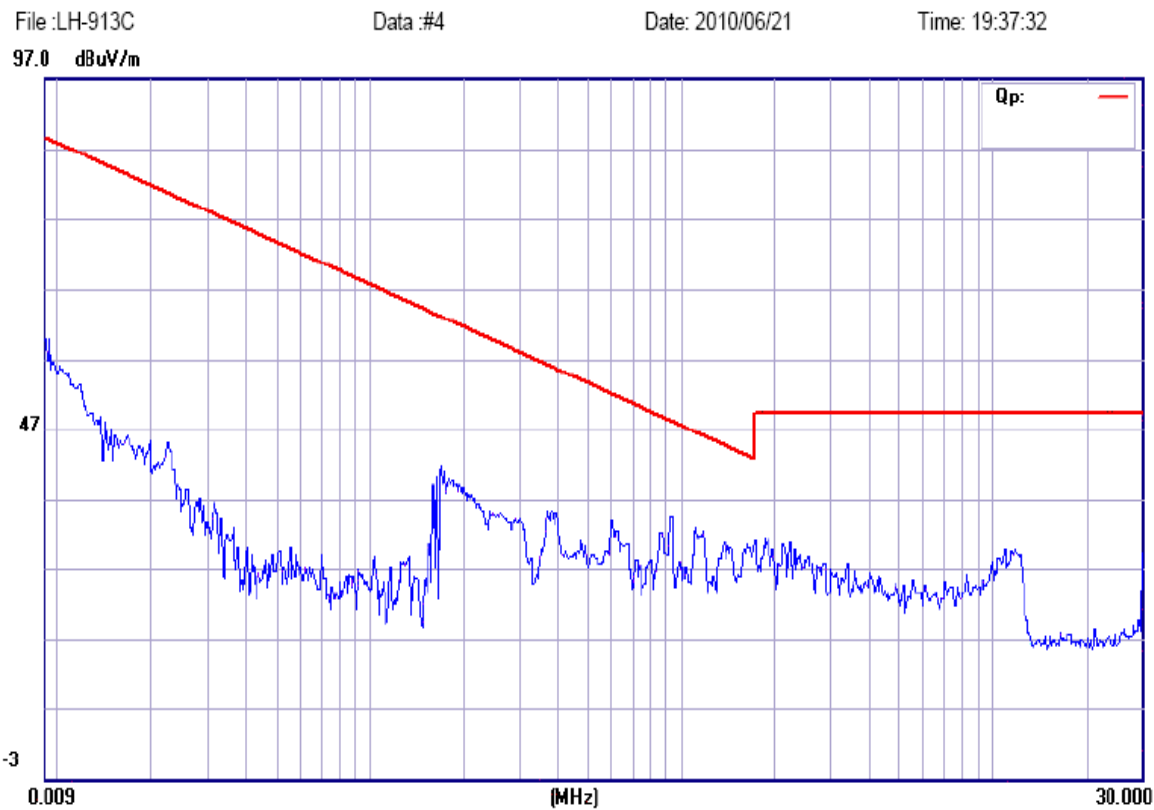
A **General Radiated Emission Data and Harmonics Radiated Emission Data**

Radiated Emission In Horizontal (0.009MHz----30MHz)

EUT set Condition: Transmitting

Results: **Pass**

Please refer to following diagram for individual



Frequency (MHz)	Level@3m (dB μ V/m)	Limit@3m (dB μ V/m)
--	--	--

The report refers only to the sample tested and does not apply to the bulk.
This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co.,Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for advertizing. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co.,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co.,Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.
In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting co.,Ltd reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



B. **General Radiated Emission Data and Harmonics Radiated Emission Data**

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

EUT set Condition: Transmitting

Results: Pass

Please refer to following diagram for individual

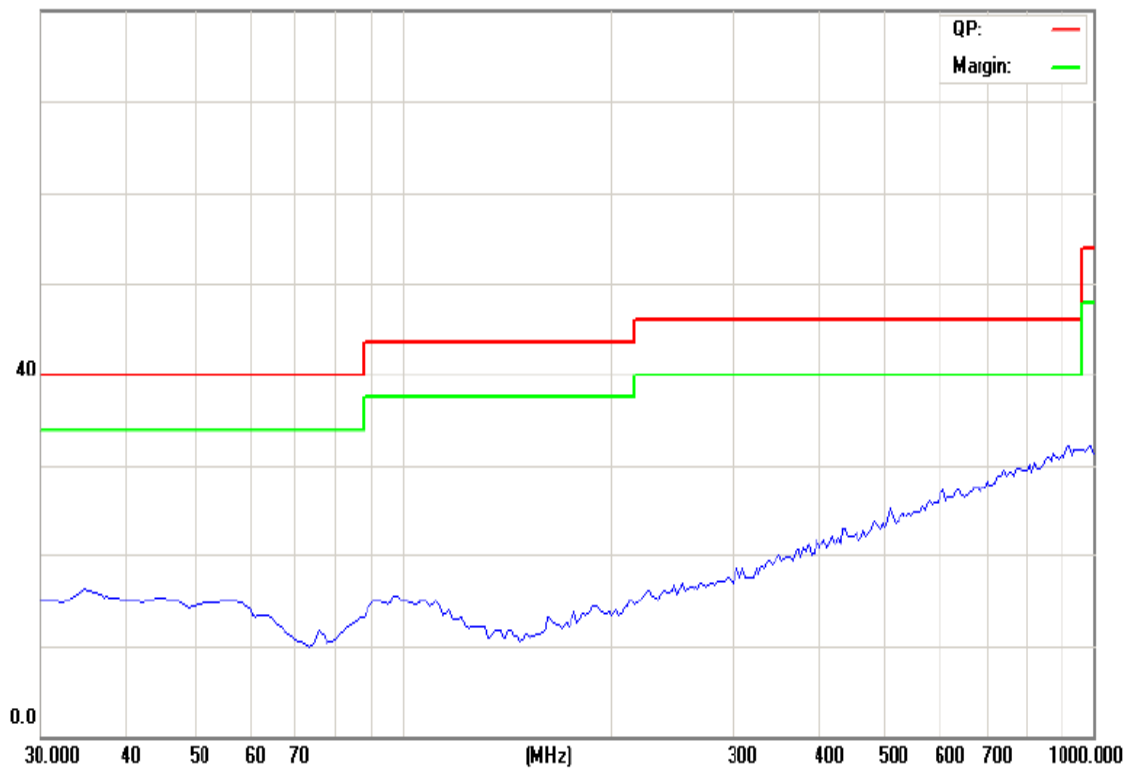
File :LH-931C

Data :#2

Date: 10/06/11/

Time: 14/42/06

80.0 dB μ V/m



Frequency (MHz)	Level@3m (dB μ V/m)	Antenna Polarity	Limit@3m (dB μ V/m)
--	--	H	--

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

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

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



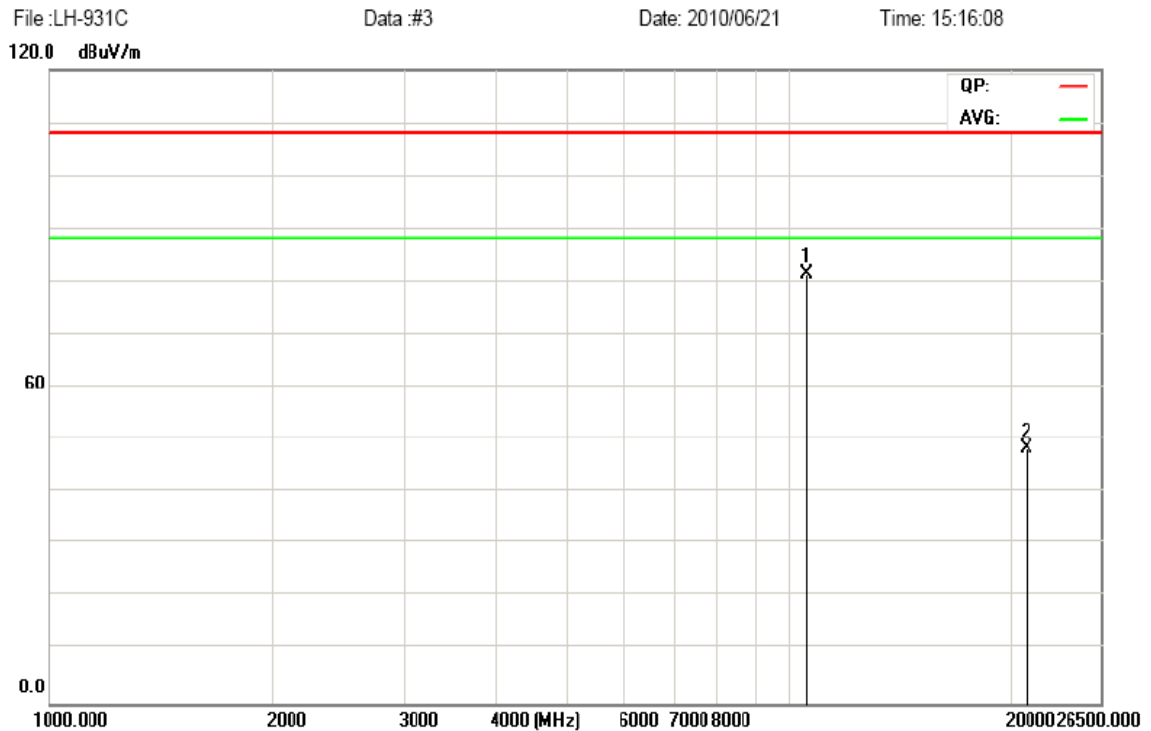
B1. General Radiated Emission Data and Harmonics Radiated Emission Data

Radiated Emission In Horizontal (1000MHz----26500MHz)

EUT set Condition: Transmitting

Results: Pass

Please refer to following diagram for individual



Frequency (GHz)	Level@3m (dB μ V/m)	Antenna Polarity	Limit@3m (dB μ V/m)
10525.549	81.34(PK)	H	128.00 (AV)
21060.543	48.52(PK)	H	88.00 (AV)

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

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

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



B2. General Radiated Emission Data and Harmonics Radiated Emission Data

Radiated Emission In Horizontal (26500MHz----40000MHz)

EUT set Condition: Transmitting

Results: Pass

Please refer to following diagram for individual



Frequency (GHz)	Level@3m (dB μ V/m)	Antenna Polarity	Limit@3m (dB μ V/m)
31575.096	47.34 (PK)	H	108.00 (AV)

The report refers only to the sample tested and does not apply to the bulk.
This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co.,Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for advertizing. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the Shenzhen Timeway Technology Consulting co.,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting co.,Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.
In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting co.,Ltd reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



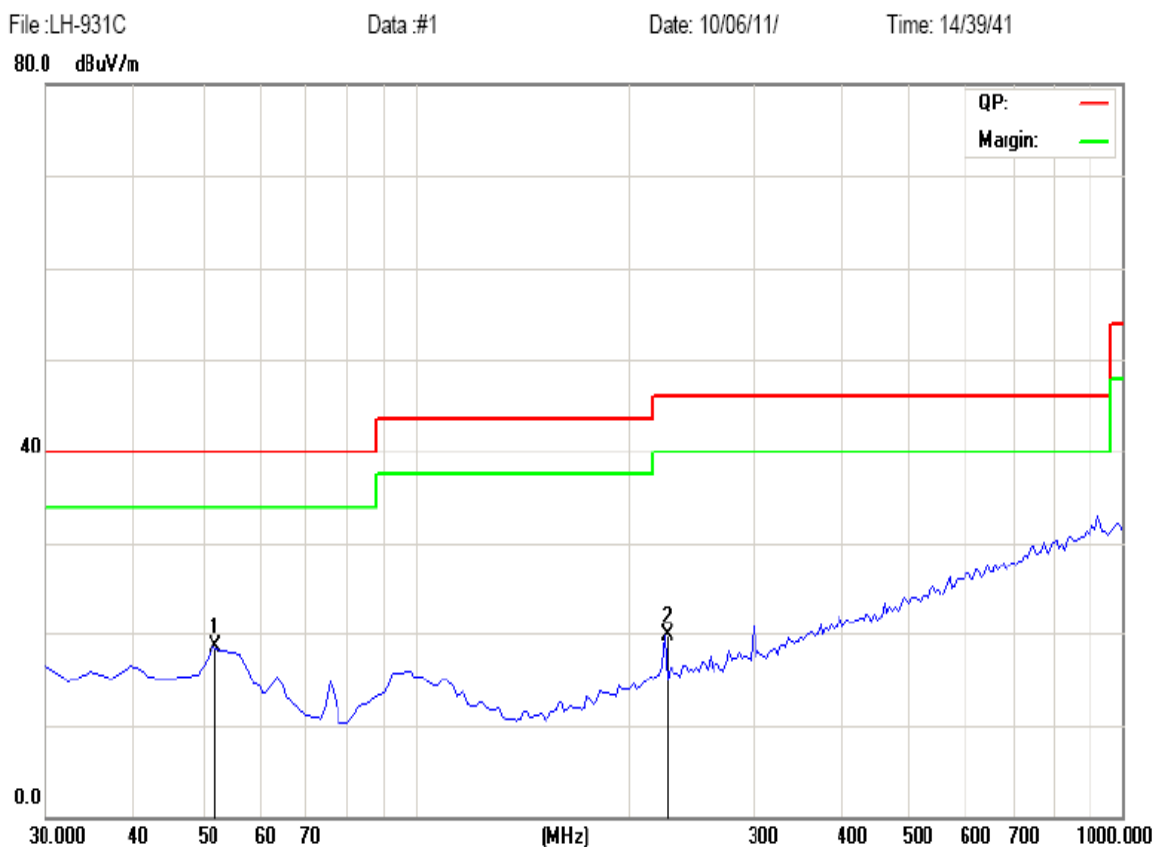
C. General Radiated Emission Data and Harmonics Radiated Emission Data

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

EUT set Condition: Transmitting

Results: Pass

Please refer to following diagram for individual



Frequency (MHz)	Level@3m (dB μ V/m)	Antenna Polarity	Limit@3m (dB μ V/m)
52.825	18.41	V	40.00
226.425	20.01	V	46.00

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

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

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



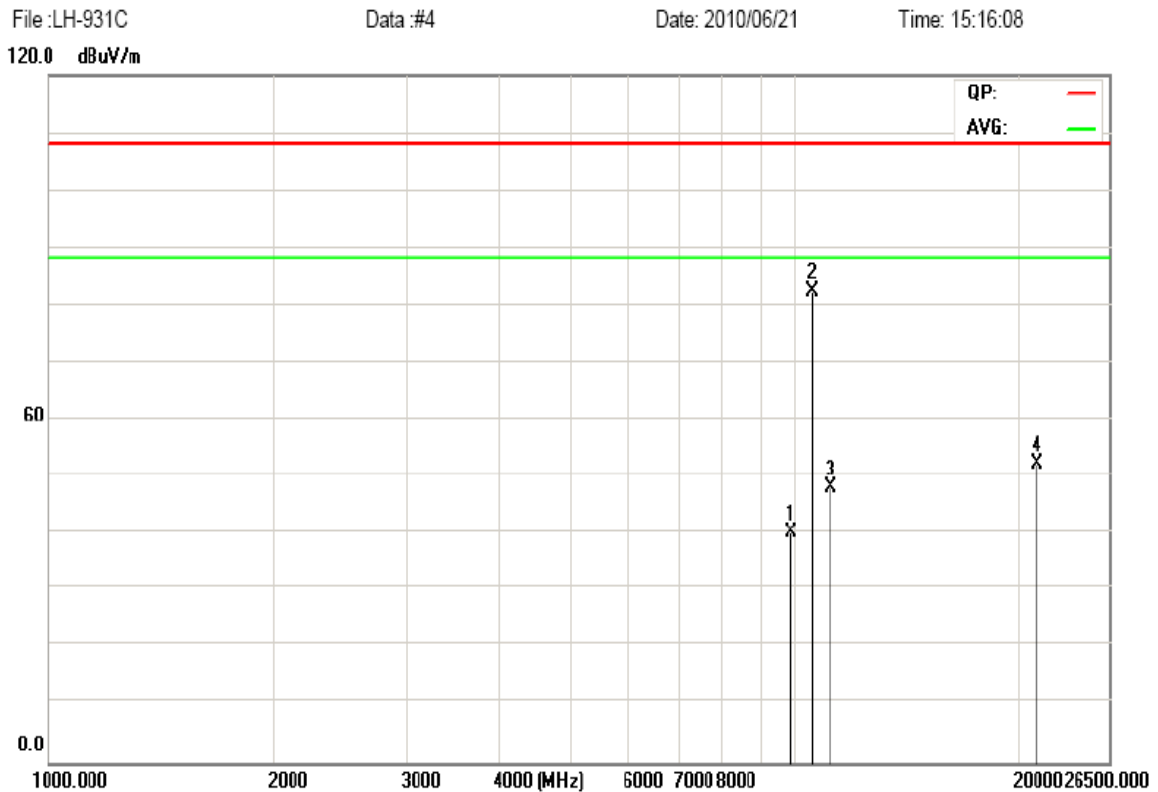
C1. **General Radiated Emission Data and Harmonics Radiated Emission Data**

Radiated Emission In Vertical (1000MHz----26500MHz)

EUT set Condition: Transmitting

Results: Pass

Please refer to following diagram for individual



Frequency (MHz)	Level@3m (dB μ V/m)	Antenna Polarity	Limit@3m (dB μ V/m)
9841.176	41.34(PK)	V	54.00 (AV)
10525.676	82.41(PK)	V	128.00 (AV)
11169.786	48.13(PK)	V	54.00 (AV)
21032.286	52.42(PK)	V	88.00 (AV)

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

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

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



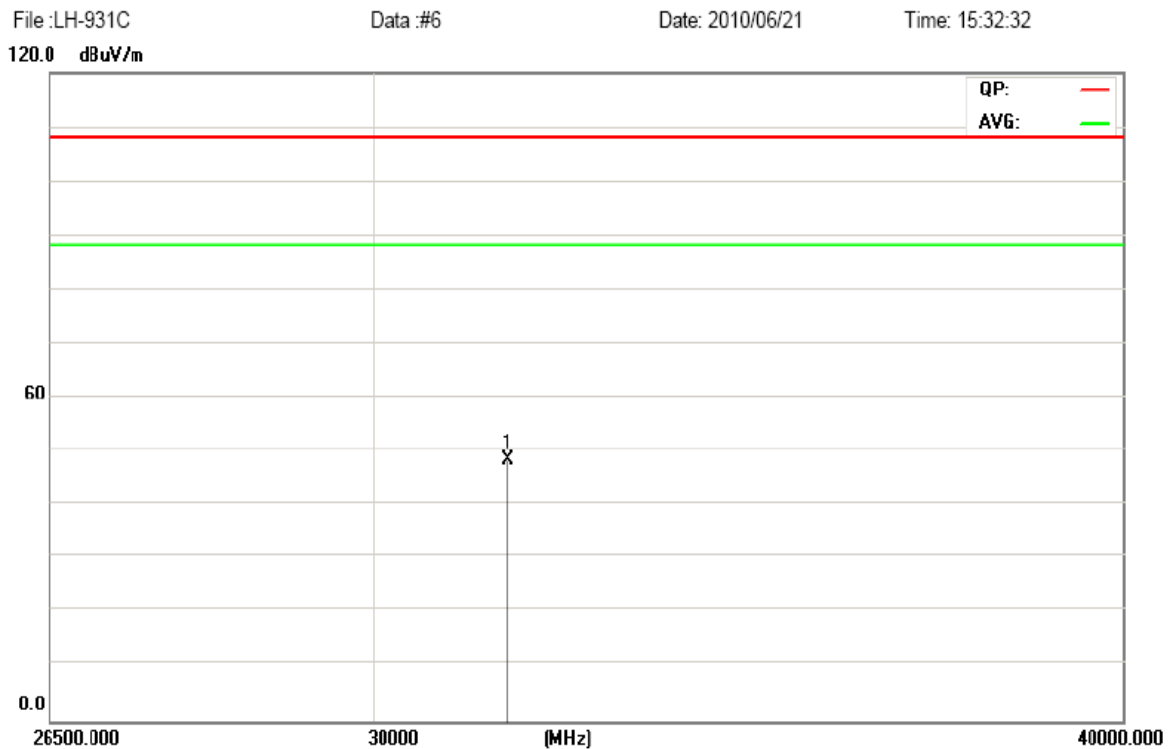
C2. **General Radiated Emission Data and Harmonics Radiated Emission Data**

Radiated Emission In Vertical (26500MHz---40000MHz)

EUT set Condition: Transmitting

Results: Pass

Please refer to following diagram for individual



Frequency (MHz)	Level@3m (dB μ V/m)	Antenna Polarity	Limit@3m (dB μ V/m)
31575.464	48.38 (PK)	V	88.00 (AV)

NOTE1: “>20dB” means the tables in this clause should only list values of spurious emissions that exceed the Level of 20 dB below the applicable limit, see ANSI C63.4, CLAUSE 10.1.8.2.

NOTE2: in the test range 40GHz-60GHz, no spurious emissions were detected.

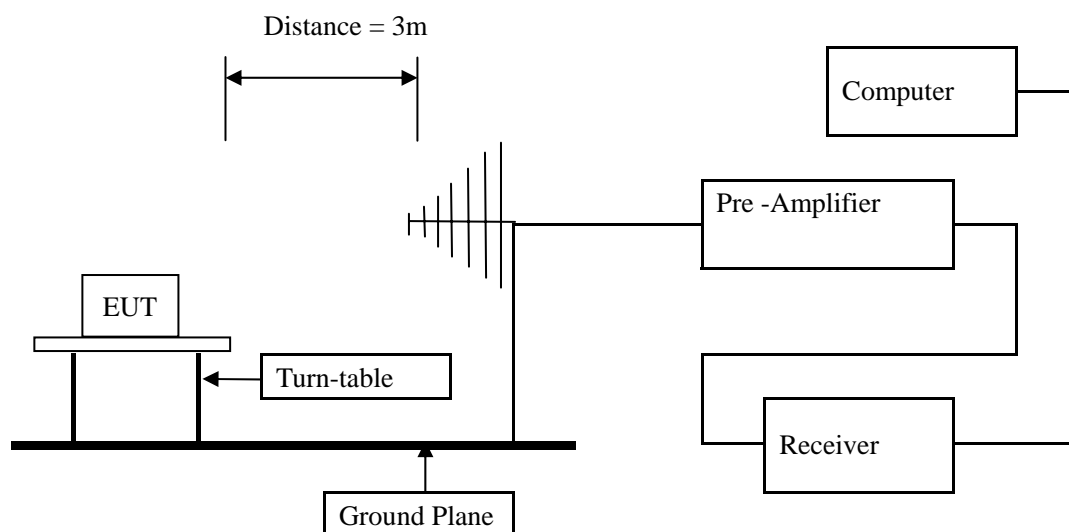


7. Band Edge

7.1 Test Method and test Procedure:

- (1) The EUT was tested according to ANSI C63.4 –2003. The radiated test was performed at Timeway Laboratory. This site is on file with the FCC laboratory division, Registration No.899988
- (2) The frequency spectrum from 30 MHz to 1 GHz was investigated. All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 10 KHz. All readings are above 1 GHz , peak values with a resolution bandwidth of 1 MHz . Measurements were made at 3 meters.
- (3) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (4) 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.
- (5) The antenna polarization : Vertical polarization and Horizontal polarization.

7.2 Radiated Test Setup



For the actual test configuration , please refer to the related items – Photos of Testing

7.3 Configuration of The EUT

Same as section 5.3 of this report

7.4 EUT Operating Condition

Same as section 5.3 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 Technology Consulting Co., Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the Shenzhen Timeway Technology Consulting Co., Ltd. to his customer. Supplier or other persons directly concerned. Shenzhen Timeway Technology Consulting Co., Ltd. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

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



7.5 Band Edge Limit

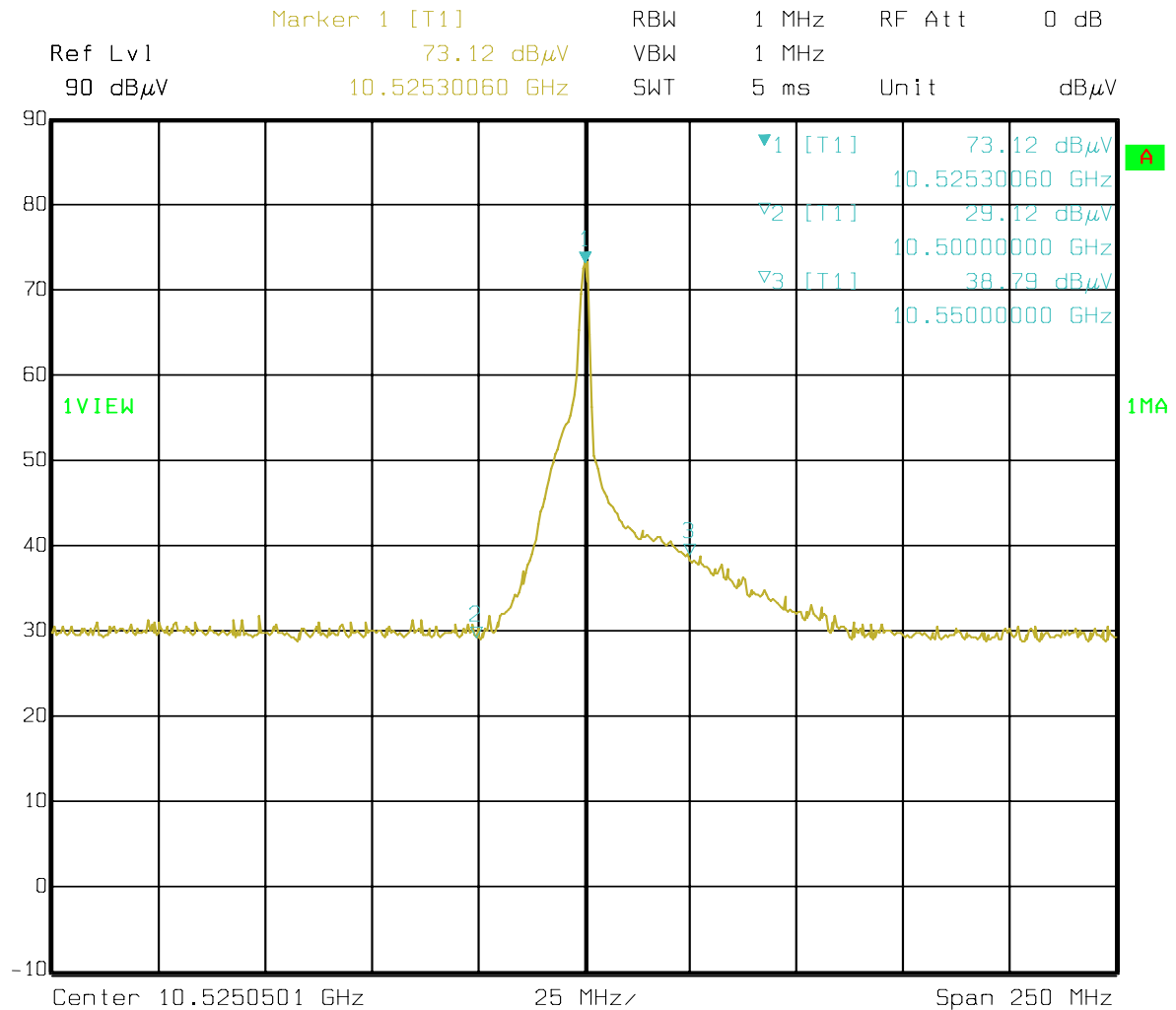
Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

7.6 Band Edge Test Result

Product:	Outdoor Intelligence Triple Technology Intruder Detector	Test Mode:	Transmitting
Test Item:	Band Edge	Temperature:	25°C
Test Voltage:	DC 12V	Humidity:	56%
Test Result:	Pass		

Antenna Polarity: Horizontal

Test Figure:



Date: 13.JUN.2010 10:18:25

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

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

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



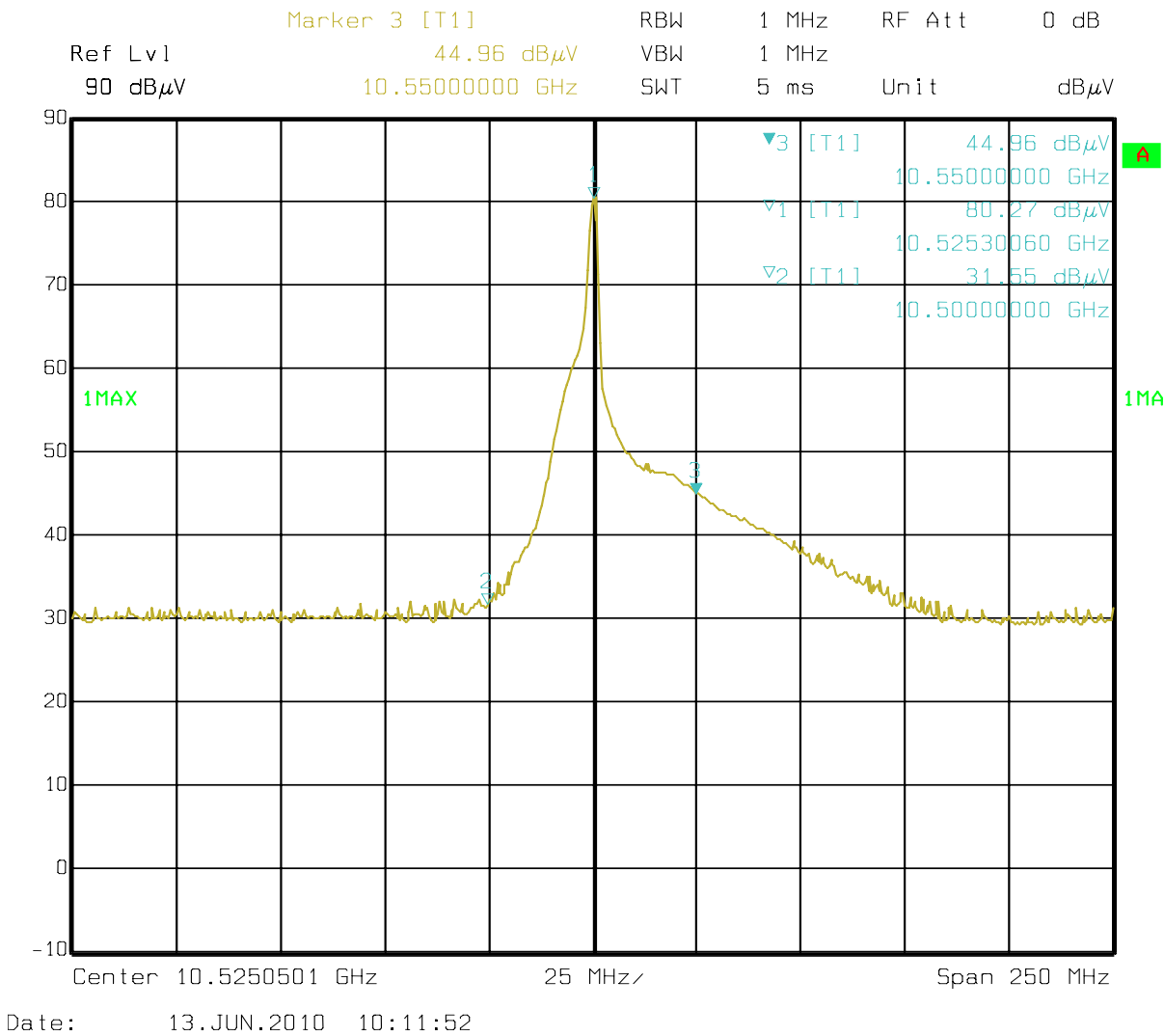
TEST REPORT

7.6 Band Edge Test Result

Product:	Outdoor Intelligence Triple Technology Intruder Detector	Test Mode:	Transmitting
Test Item:	Band Edge	Temperature:	25℃
Test Voltage:	DC 12V	Humidity:	56%
Test Result:	Pass		

Antenna Polarity: Vertical

Test Figure:



8. 20 dB Bandwidth

The report refers only to the sample tested and does not apply to the bulk.
This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co.,Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it or a certified copy thereof prepared by the Shenzhen Timeway Technology Consulting Co.,Ltd to his customer. Supplier or others persons directly concerned. Shenzhen Timeway Technology Consulting Co.,Ltd will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.
In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting Co.,Ltd reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



8.1 20dB Bandwidth Requirement

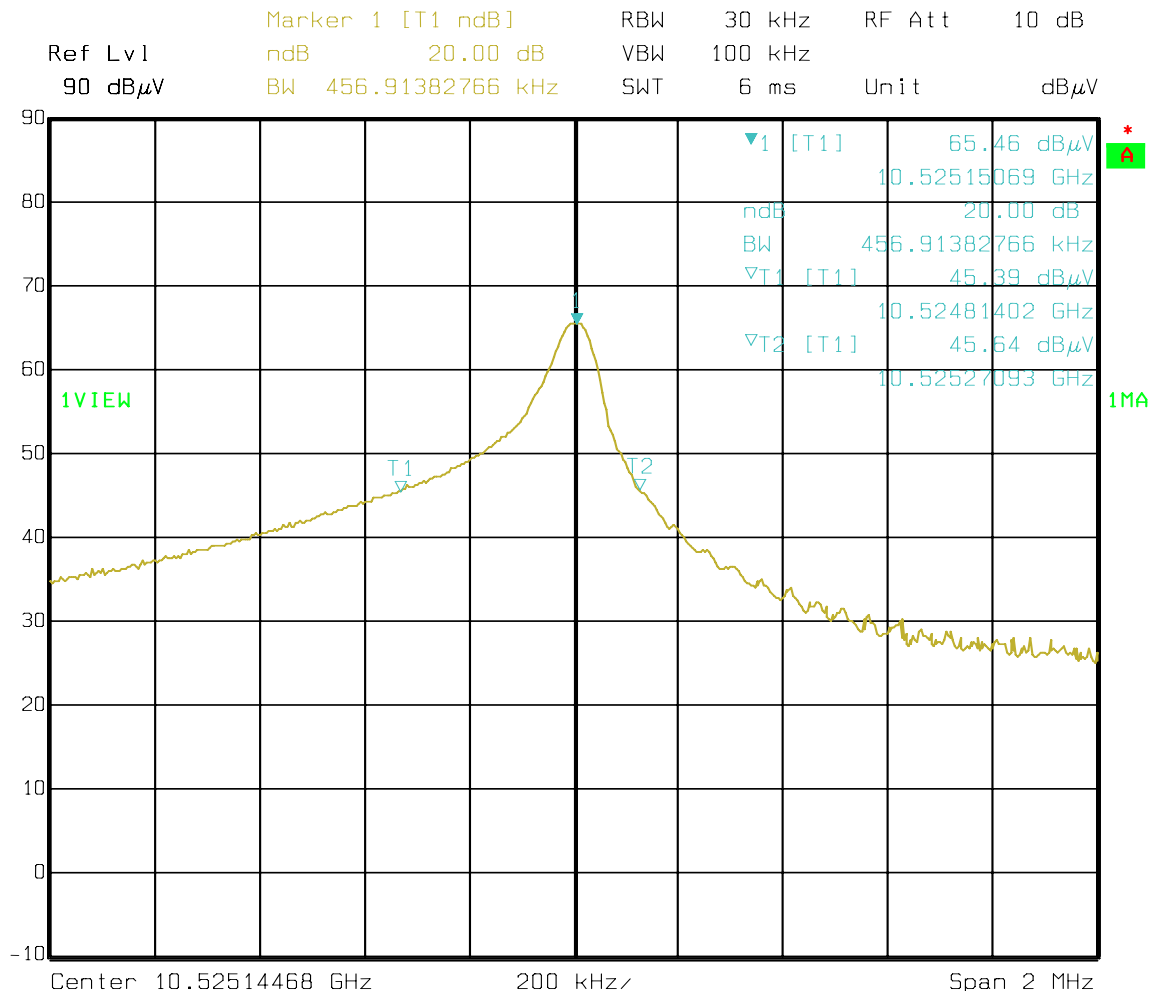
Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission,

8.2 20dB Bandwidth Test Result

Product:	Outdoor Intelligence Triple Technology Intruder Detector	Test Mode:	Transmitting
Test Item:	20dB Bandwidth	Temperature:	25°C
Test Voltage:	DC 12V	Humidity:	56%
Bandwidth	456.91382766KHz	Test Result:	Pass

Antenna Polarity: Horizontal

Test Figure:



Date: 13.JUN.2010 09:05:52

9.0 Maximum Permissible Exposure

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

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

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



TEST REPORT

9.1 Limit of Maximum Permissible Exposure

Limit for Occupational / Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength(E)(V/m)	Magnetic Field Strength(H)(A/m)	Power Density(S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6
Limit for General / Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength(E)(V/m)	Magnetic Field Strength(H)(A/m)	Power Density(S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	30
3.0-30	842/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30
NOTE1: f = frequency in MHz ; *Plane-wave equivalent power density				
NOTE2: For the applicable limit, see FCC 1.1310 and 2.1091				

9.2 MPE Calculation Method

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d}$$

$$\text{Power Density: } Pd \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

E = Electric field (V/m)

P = RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

9.3 Result of Maximum Permissible Exposure

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

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

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



9.3.1 Maximum Permissible Exposure

Exposure Environment: General Population / Uncontrolled Exposure						
TPC range: 1				Operating Mode:		
Duty Cycle: 100%	Test Results					
Humidity:56%	Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S)	Limit of Power Density(S)
Ambient Temp:25°C						
Maximum EIRP Power of Test Frequency(GMz)						
10.525 GHz	4.66	2.75	-24.59	0.00347536	8.450256e-5	1.0
NOTE: For applicable limit , see FCC 1.1310 and 2.1091						

10.0 FCC ID Label

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

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

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



FCC ID: YGWLH-913C

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:



FCC ID Label Location

11.0 Photo of testing

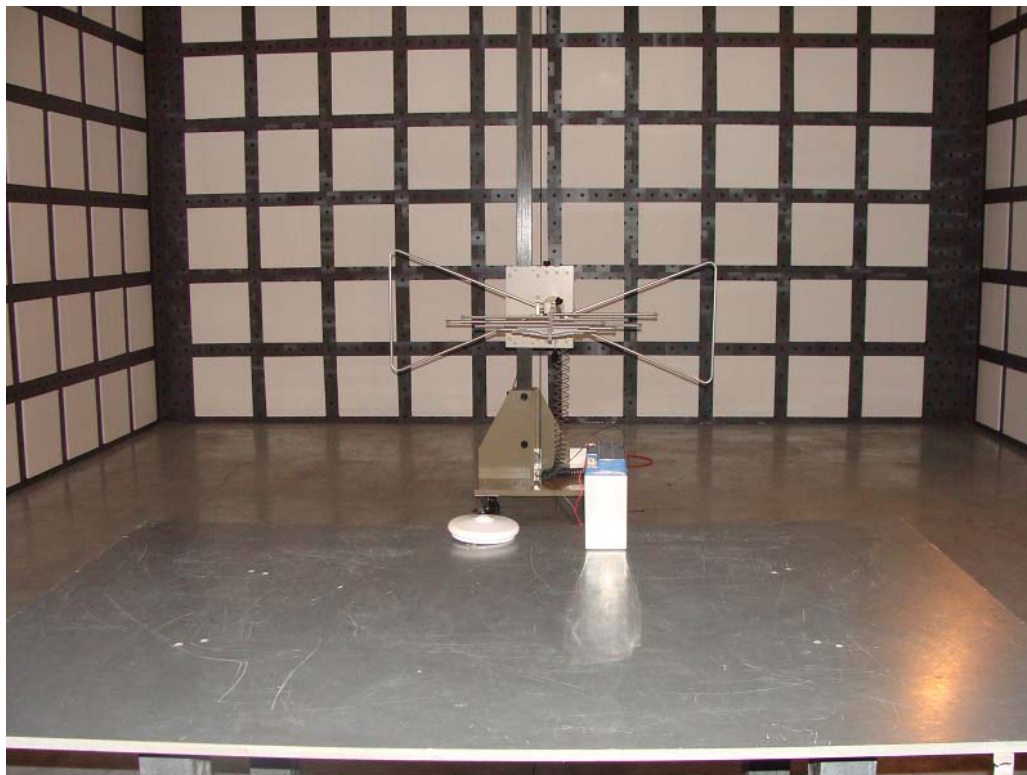
The report refers only to the sample tested and does not apply to the bulk.

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

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



11.1 Radiated emission test view



9.3 Photo for the EUT

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

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

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



Front View& Back View

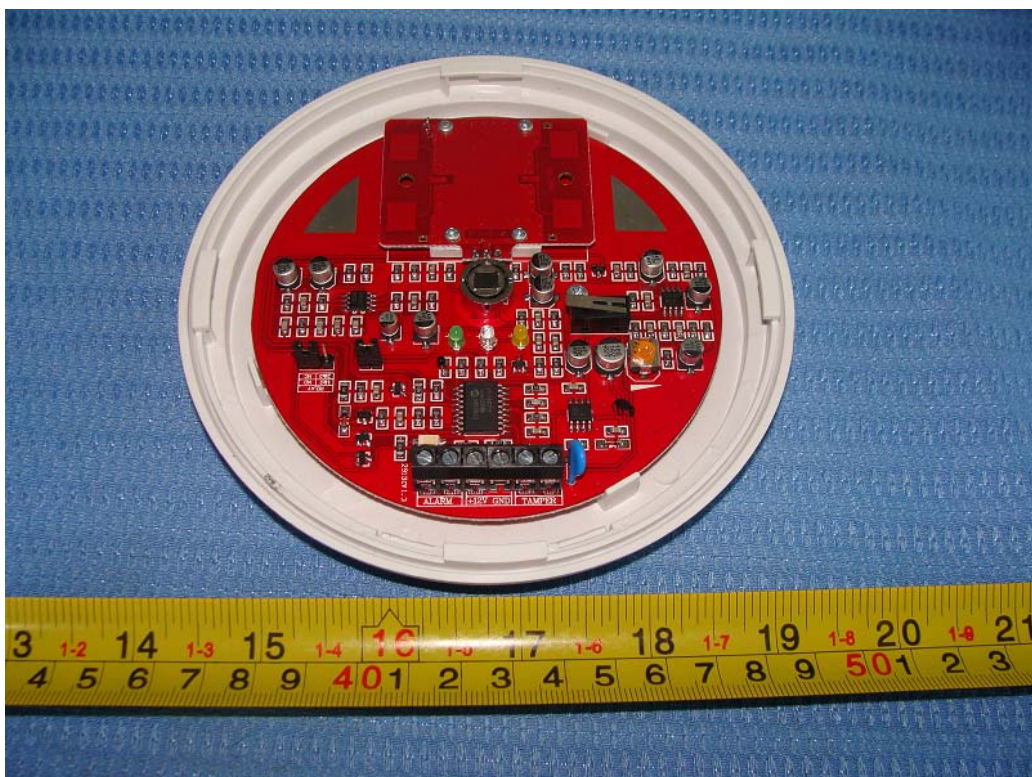
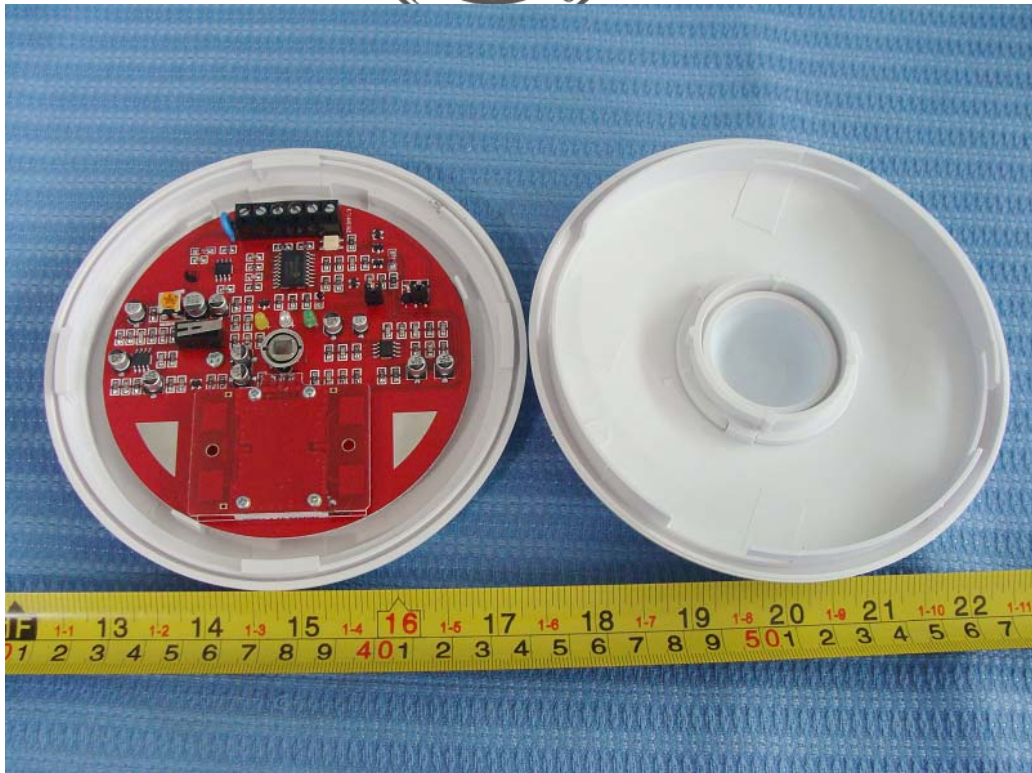


Interior View

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

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

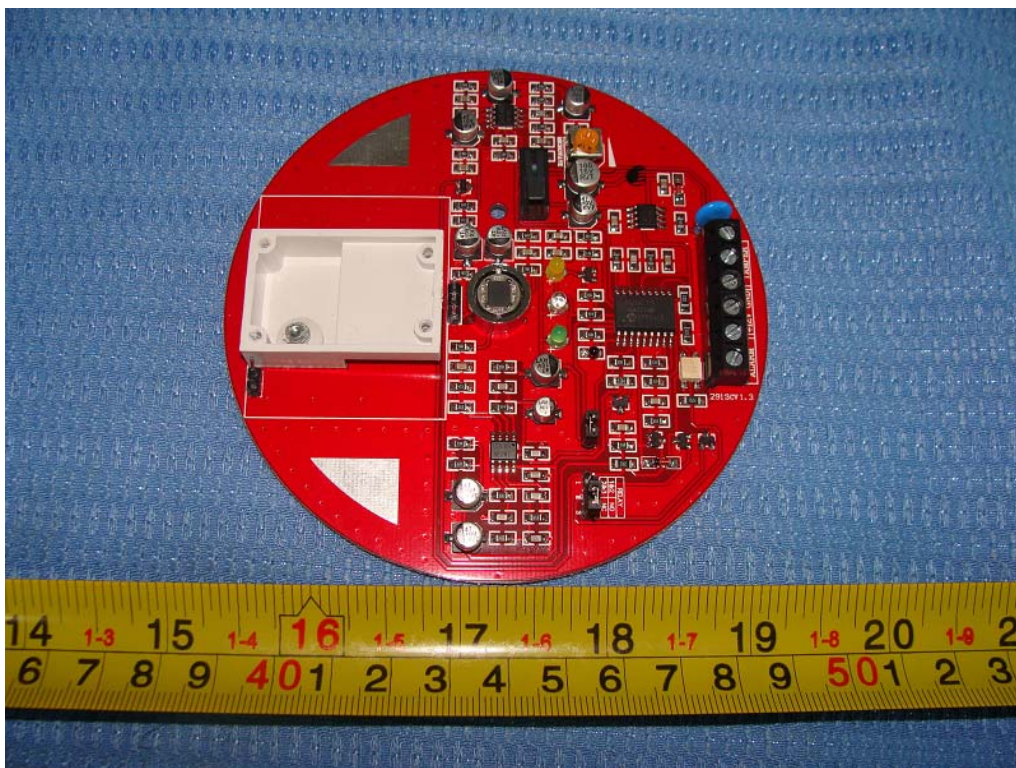
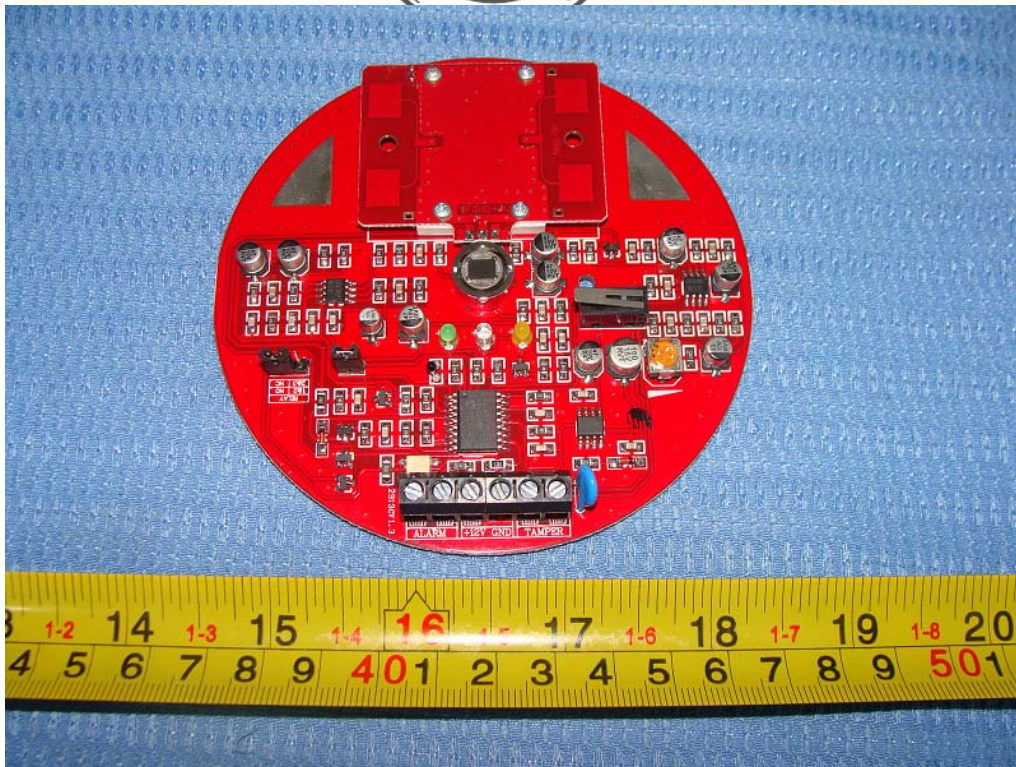
In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting Co., Ltd. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



Interior View

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

This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co., Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the Shenzhen Timeway Technology Consulting Co., Ltd. to his customer. Supplier or other persons directly concerned. Shenzhen Timeway Technology Consulting Co., Ltd. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report. In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting Co., Ltd. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

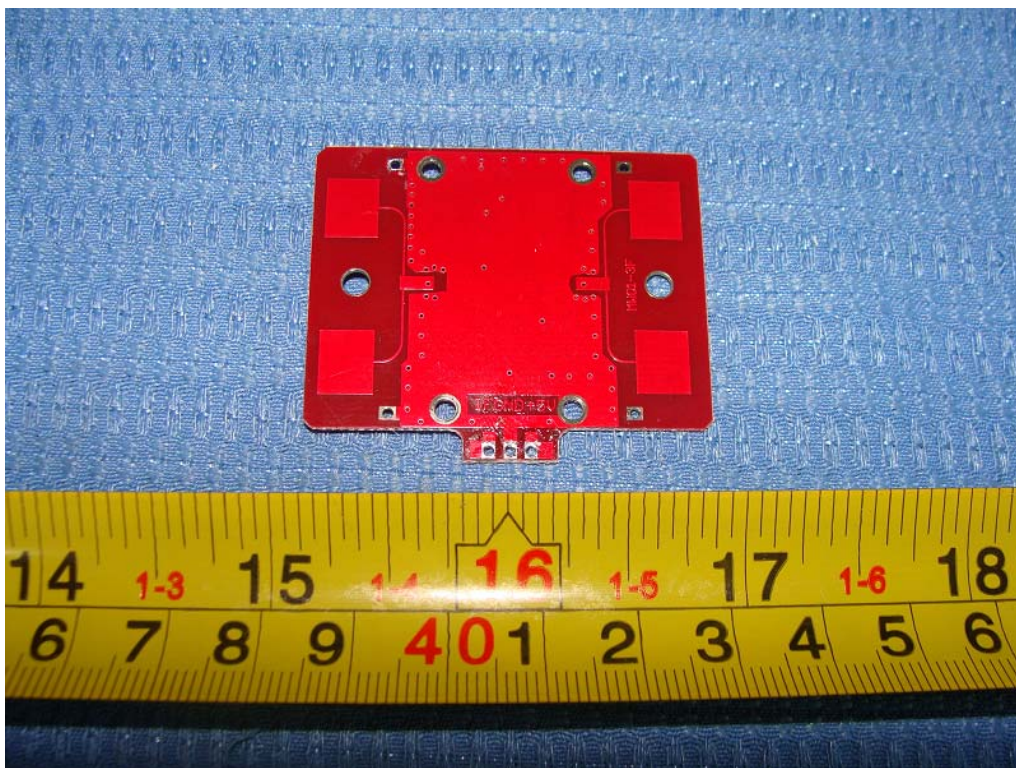
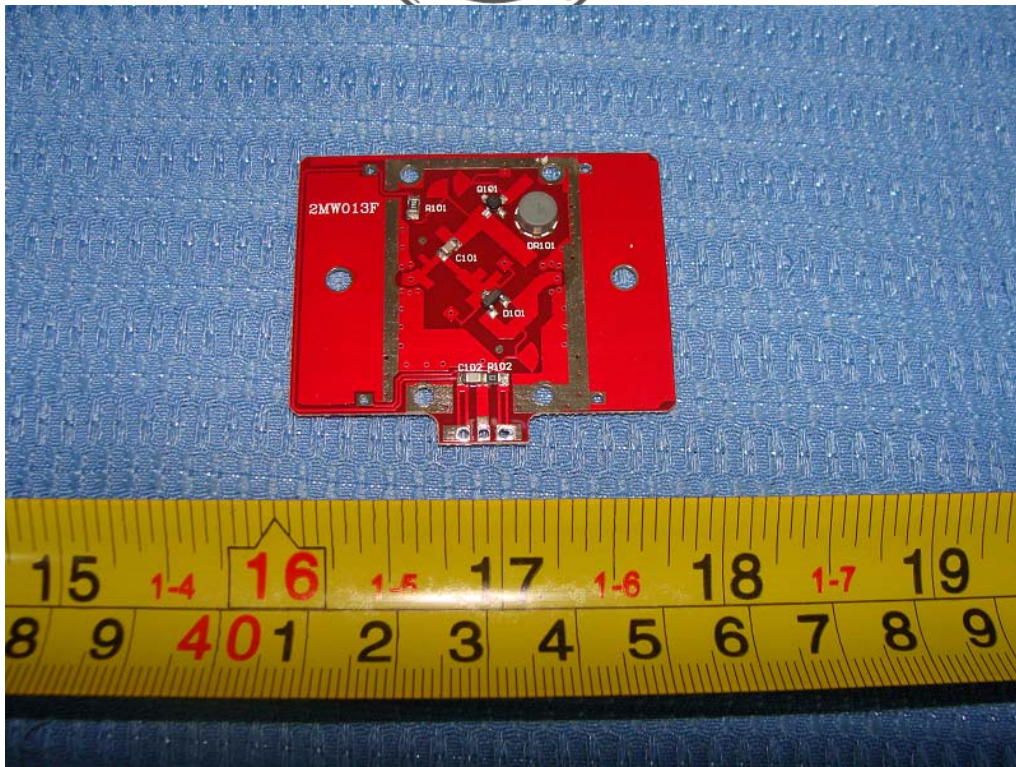


Interior View2

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

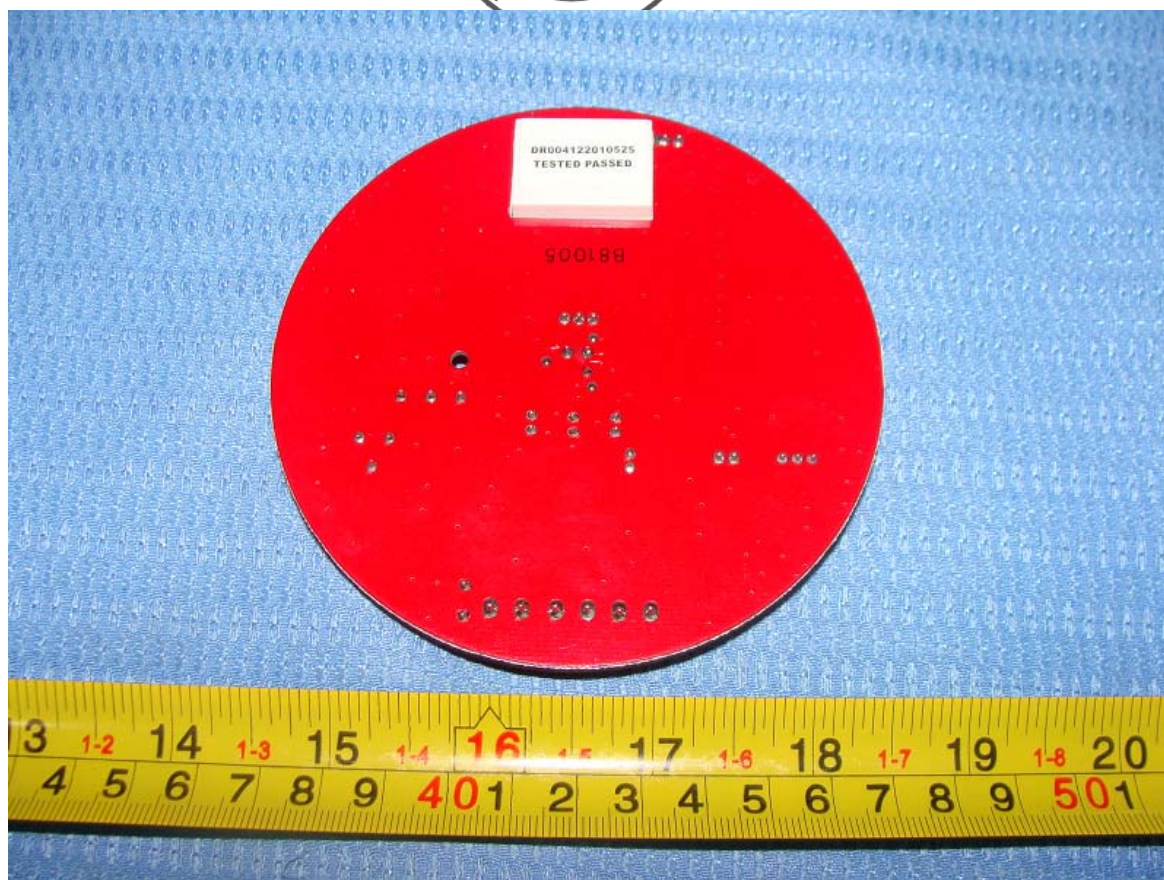
This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co., Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show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

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



Interior View3

The report refers only to the sample tested and does not apply to the bulk.
This report is issued in confidence to the client and it will be strictly treated as such by the Shenzhen Timeway Technology Consulting Co., Ltd. It may not be reproduced rather in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the Shenzhen Timeway Technology Consulting Co., Ltd. to his customer. Supplier or other persons directly concerned. Shenzhen Timeway Technology Consulting Co., Ltd. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.
In the event of the improper use of the report. The Shenzhen Timeway Technology Consulting Co., Ltd. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.



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 Technology Consulting Co., Ltd. It may not be reproduced in its entirety or in part and it may not be used for advertising. The client to whom the report is issued may, however, show or send it, or a certified copy thereof prepared by the Shenzhen Timeway Technology Consulting Co., Ltd. to his customer, supplier or other persons directly concerned. Shenzhen Timeway Technology Consulting Co., Ltd. will not, without the consent of the client, enter into any discussion of correspondence with any third party concerning the contents of the report.

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