

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: star #2350

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi Repeater

Mode: TX Channel 6(802.11n)

Model: VRP150

Manufacturer: HouTian

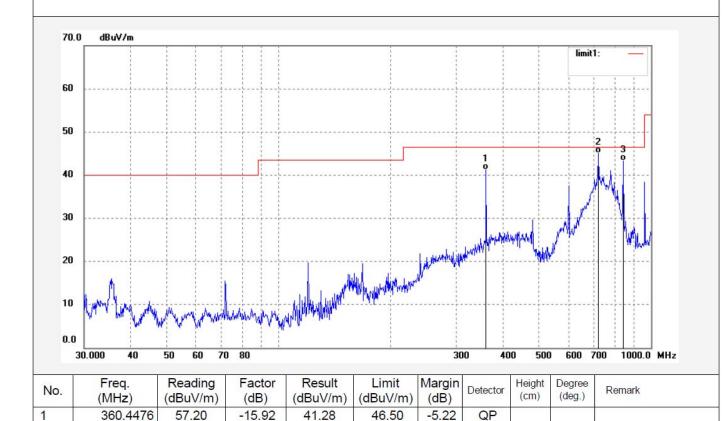
Note: Report No.:ATE20131606

Polarization: Horizontal Power Source: DC 5V

Date: 13/07/25/ Time: 10/11/15

Engineer Signature: STAR

Distance: 3m



2

3

721.7259

842.1296

54.30

50.48

-9.28

-7.10

45.02

43.38

46.50

46.50

-1.48

-3.12

QP

QP



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Vertical

Power Source: DC 5V

Date: 13/07/24/ Time: 10/51/47

Distance: 3m

Engineer Signature:

Job No.: star #2523

Standard: FCC Class B 3M Radiated

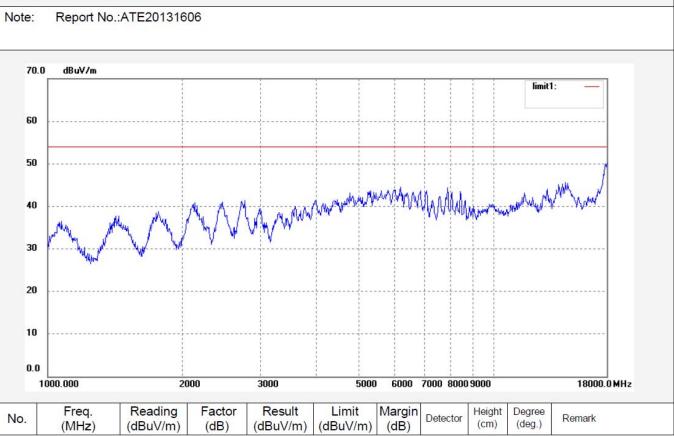
Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Wifi Repeater

Mode: TX Channel 6(802.11n)

Model: VRP150 Manufacturer: HouTian





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Horizontal

Job No.: star #2524

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Wifi Repeater

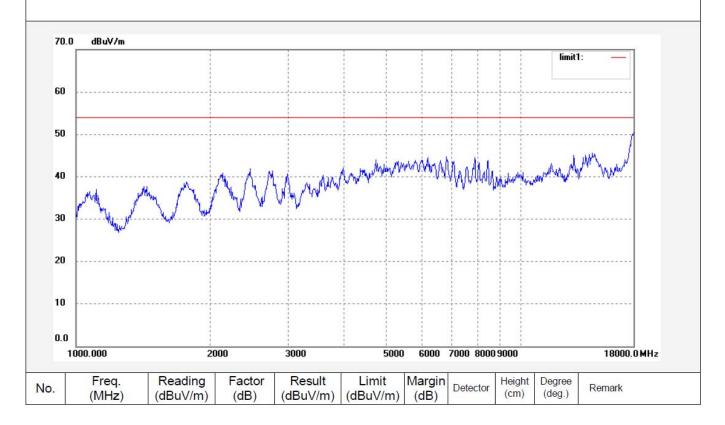
Mode: TX Channel 6(802.11n)

Model: VRP150 Manufacturer: HouTian

Note: Report No.:ATE20131606

Power Source: DC 5V Date: 13/07/24/ Time: 10/58/44 Engineer Signature: Distance: 3m

Polarization:





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: star #2547

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Wifi Repeater

Mode: TX Channel 6(802.11n)

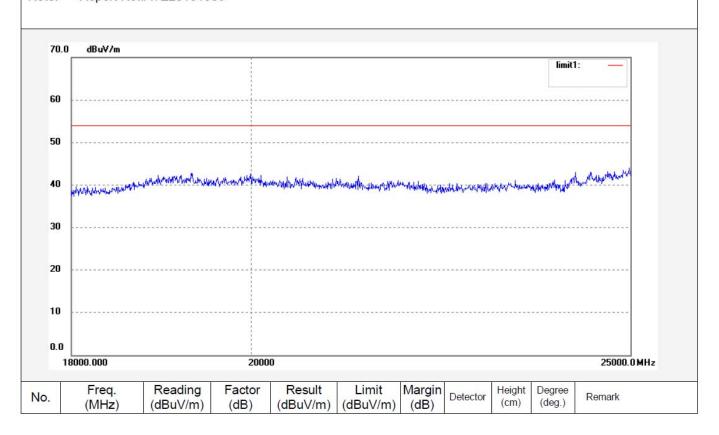
Model: VRP150 Manufacturer: HouTian

Note: Report No.:ATE20131606

Power Source: DC 5V Date: 13/07/25/ Time: 12/30/57 Engineer Signature: Distance: 3m

Horizontal

Polarization:





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: star #2548

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Wifi Repeater

Mode: TX Channel 6(802.11n)

Model: VRP150 Manufacturer: HouTian

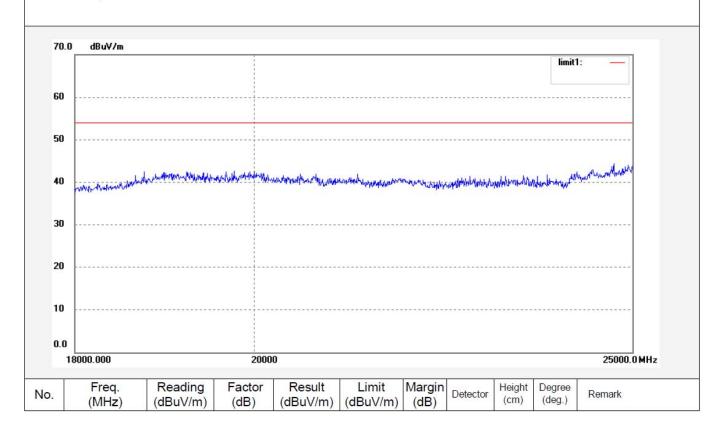
Note: Report No.:ATE20131606

Power Source: DC 5V Date: 13/07/25/ Time: 12/34/06

Vertical

Polarization:

Engineer Signature: Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: star #2351

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi Repeater

Mode: TX Channel 11(802.11n)

Model: VRP150 Manufacturer: HouTian

Note: Report No.:ATE20131606

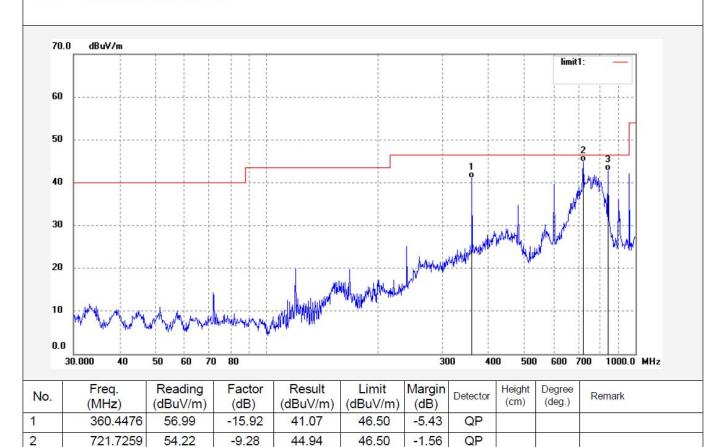
Polarization: Horizontal

Power Source: DC 5V

Date: 13/07/25/ Time: 10/16/50

Engineer Signature: STAR

Distance: 3m



3

842.1295

49.87

-7.10

42.77

46.50

-3.73

QP



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: star #2352

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi Repeater

Mode: TX Channel 11(802.11n)

Model: VRP150
Manufacturer: HouTian

Note: Report No.:ATE20131606

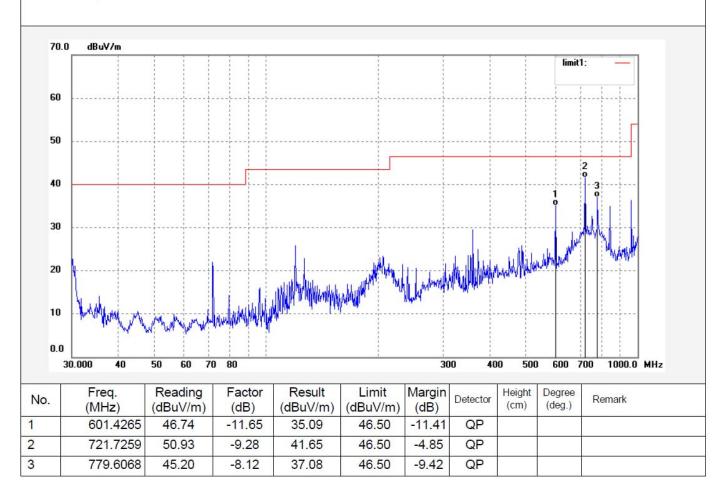
Polarization: Vertical

Power Source: DC 5V

Date: 13/07/25/ Time: 10/19/40

Engineer Signature: STAR

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: star #2525

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Wifi Repeater

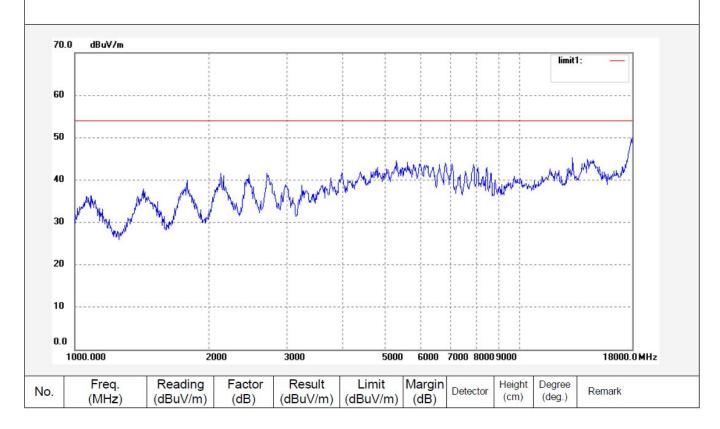
Mode: TX Channel 11(802.11n)

Model: VRP150 Manufacturer: HouTian

Note: Report No.:ATE20131606

Power Source: DC 5V Date: 13/07/24/ Time: 11/02/35 Engineer Signature: Distance: 3m

Polarization: Horizontal





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China

Polarization:

Date: 13/07/24/

Time: 11/08/05

Distance: 3m

Engineer Signature:

Power Source: DC 5V

Vertical

Site: 2# chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: star #2526

Standard: FCC Class B 3M Radiated

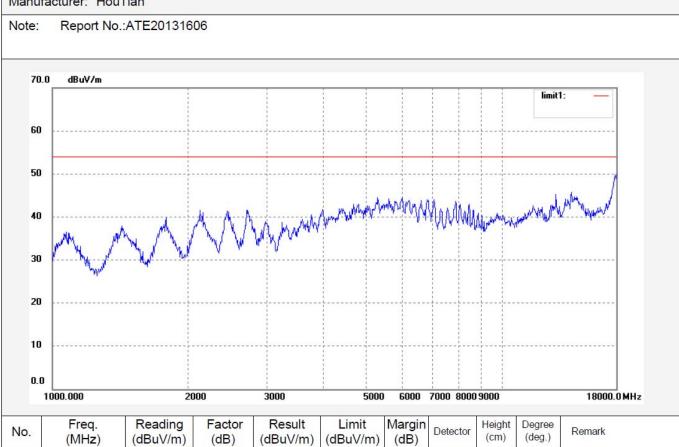
Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Wifi Repeater

Mode: TX Channel 11(802.11n)

Model: VRP150 Manufacturer: HouTian





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: star #2549

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Wifi Repeater

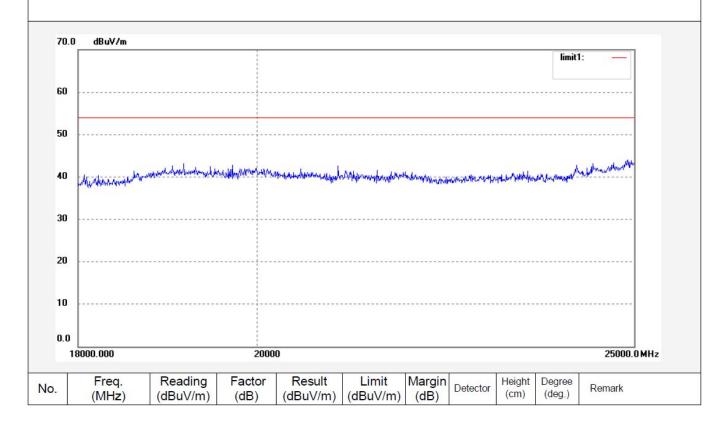
Mode: TX Channel 11(802.11n)

Model: VRP150 Manufacturer: HouTian

Note: Report No.:ATE20131606

Polarization: Vertical Power Source: DC 5V

Date: 13/07/25/ Time: 12/39/01 Engineer Signature: Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 2# chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: star #2550

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Wifi Repeater

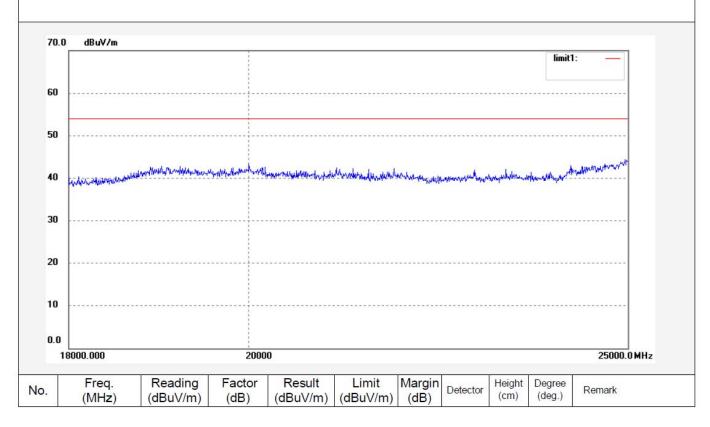
Mode: TX Channel 11(802.11n)

Model: **VRP150** Manufacturer: HouTian

Polarization: Horizontal Power Source: DC 5V

Date: 13/07/25/ Time: 12/41/36 Engineer Signature: Distance: 3m

Note: Report No.:ATE20131606





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: star #2353

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi Repeater

Mode: TX Channel 3(802.11n)40MHz

Model: VRP150
Manufacturer: HouTian

Note: Report No.:ATE20131606

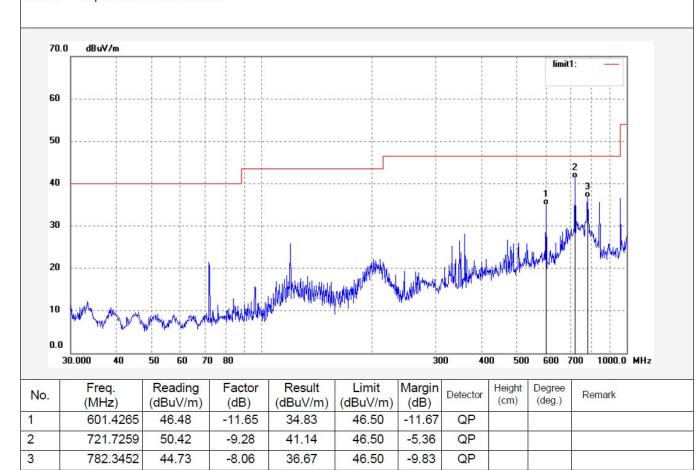
Polarization: Vertical

Power Source: DC 5V

Date: 13/07/25/ Time: 10/22/38

Engineer Signature: STAR

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: star #2354

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi Repeater

Mode: TX Channel 3(802.11n)40MHz

Model: VRP150 Manufacturer: HouTian

Note: Report No.:ATE20131606

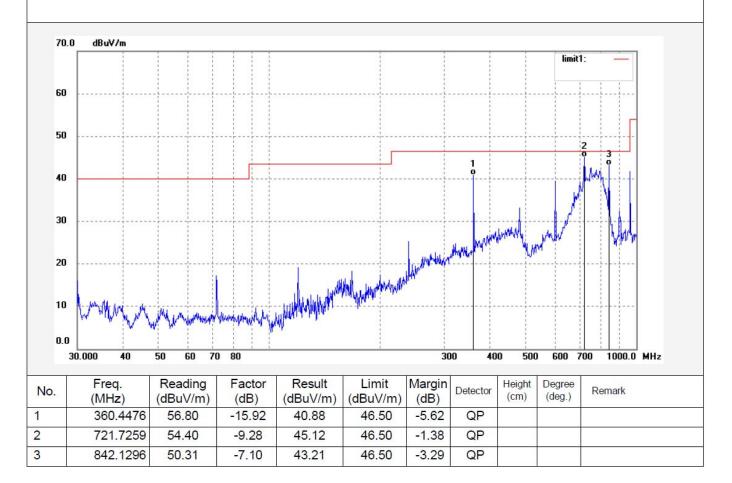
Polarization: Horizontal

Power Source: DC 5V

Date: 13/07/25/ Time: 10/25/04

Engineer Signature: STAR

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Vertical

Power Source: DC 5V

Date: 13/07/24/

Time: 11/12/26

Distance: 3m

Engineer Signature:

Job No.: star #2527

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

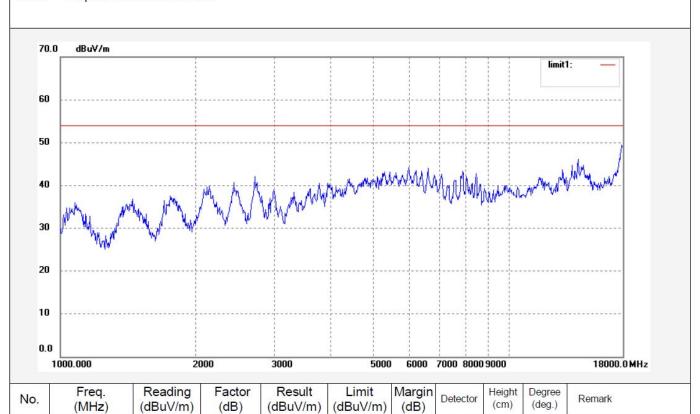
Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Wifi Repeater

Mode: TX Channel 3(802.11n)40MHz

Model: VRP150 Manufacturer: HouTian

Note: Report No.:ATE20131606





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Horizontal

Job No.: star #2528

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Wifi Repeater

Mode: TX Channel 3(802.11n)40MHz

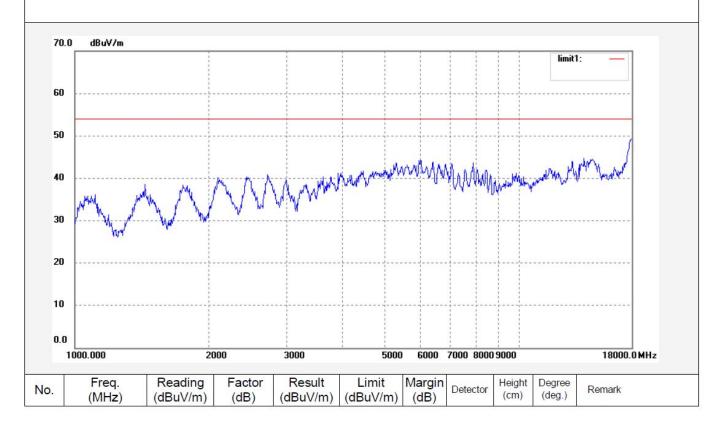
Model: VRP150 Manufacturer: HouTian

Note: Report No.:ATE20131606



Power Source: DC 5V

Polarization:





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Polarization:

Date: 13/07/25/

Time: 12/45/37

Power Source: DC 5V

Horizontal

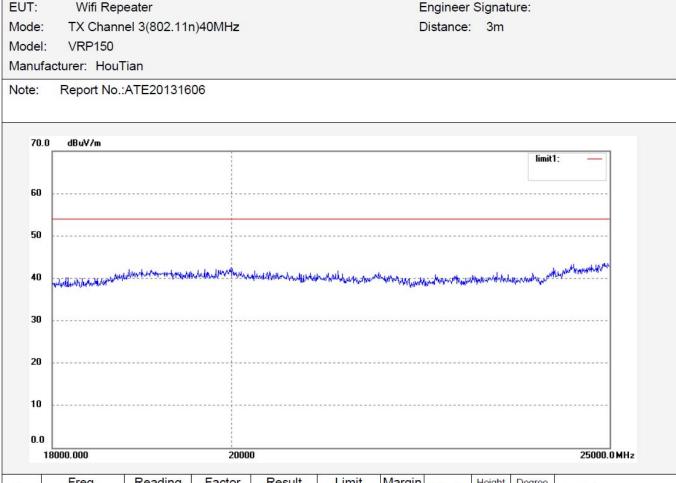
Site: 2# chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: star #2551 Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Wifi Repeater





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 2# chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Vertical

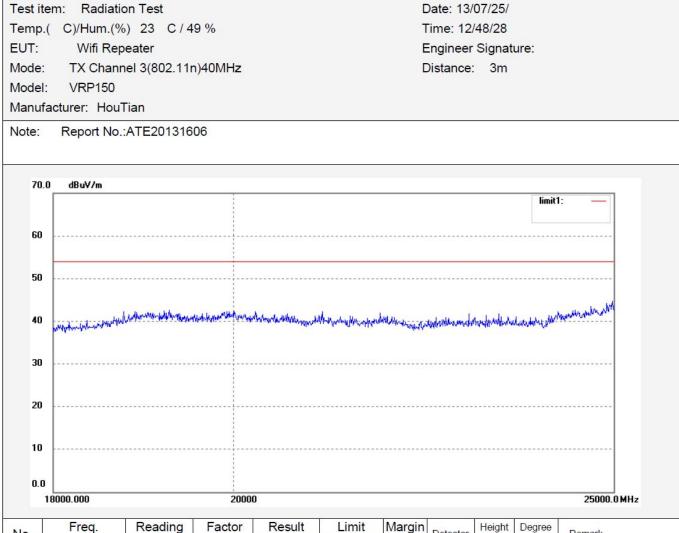
Polarization:

Power Source: DC 5V

Job No.: star #2552

Standard: FCC Class B 3M Radiated

Test item: Radiation Test





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: star #2355

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi Repeater

Mode: TX Channel 6(802.11n)40MHz

Model: VRP150 Manufacturer: HouTian

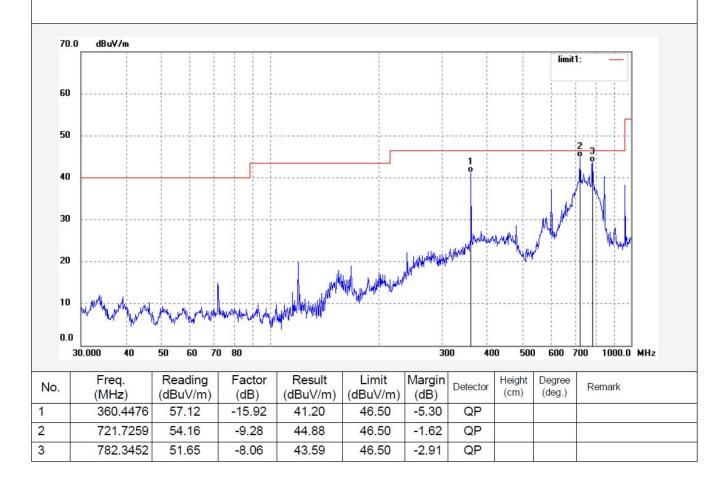
Note: Report No.:ATE20131606

Polarization: Horizontal Power Source: DC 5V

Date: 13/07/25/ Time: 10/29/30

Engineer Signature: STAR

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: star #2356

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi Repeater

Mode: TX Channel 6(802.11n)40MHz

Model: VRP150

Manufacturer: HouTian

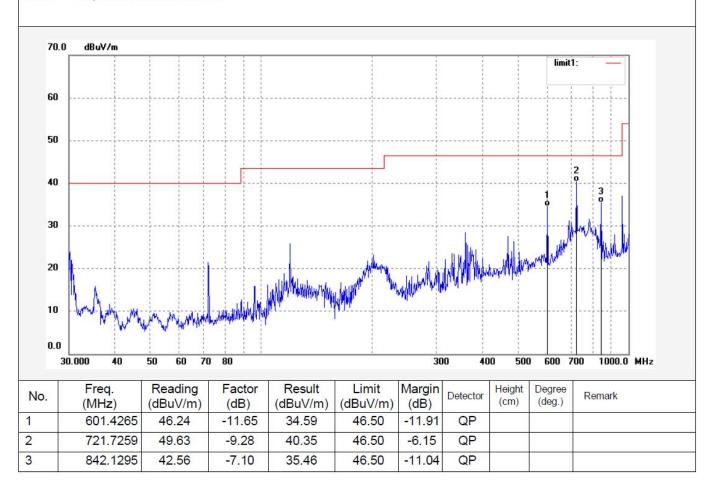
Note: Report No.:ATE20131606

Polarization: Vertical Power Source: DC 5V

Date: 13/07/25/ Time: 10/32/17

Engineer Signature: STAR

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China

Polarization:

Date: 13/07/24/

Time: 11/17/10

Distance: 3m

Engineer Signature:

Power Source: DC 5V

Site: 2# chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Horizontal

Job No.: star #2529

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

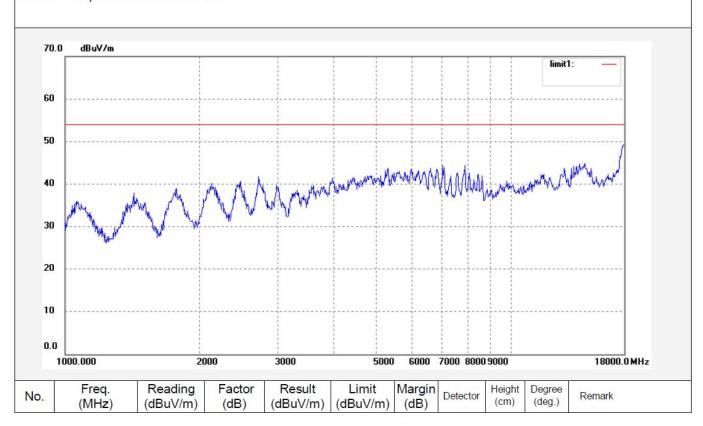
Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Wifi Repeater

Mode: TX Channel 6(802.11n)40MHz

Model: VRP150 Manufacturer: HouTian

Note: Report No.:ATE20131606





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Vertical

Power Source: DC 5V

Date: 13/07/24/

Time: 11/20/04

Distance: 3m

Engineer Signature:

Job No.: star #2530

Standard: FCC Class B 3M Radiated

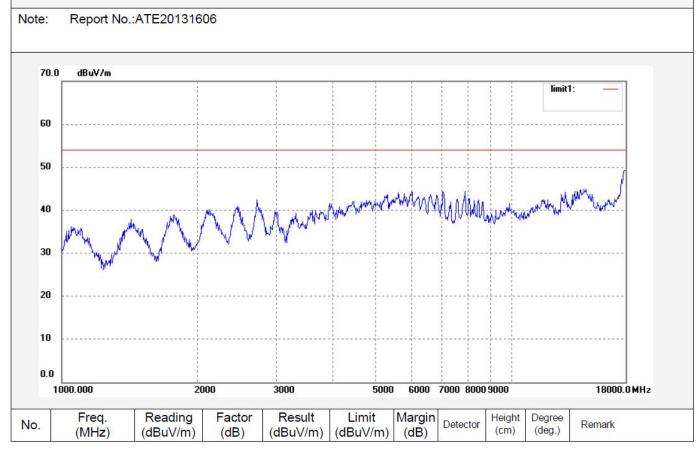
Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Wifi Repeater

Mode: TX Channel 6(802.11n)40MHz

Model: VRP150
Manufacturer: HouTian





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Tel:+86-0755-26503290 Fax:+86-0755-26503396

Site: 2# chamber

Job No.: star #2553

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Wifi Repeater

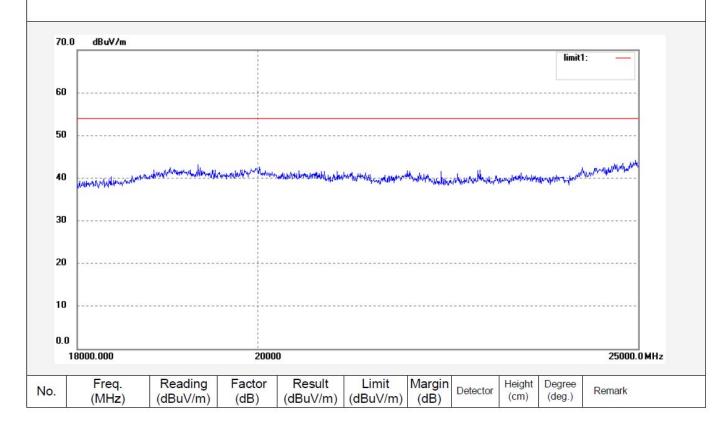
Mode: TX Channel 6(802.11n)40MHz

Model: VRP150 Manufacturer: HouTian

Note: Report No.:ATE20131606

Power Source: DC 5V Date: 13/07/25/ Time: 12/51/34 Engineer Signature: Distance: 3m

Polarization: Vertical





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Polarization:

Date: 13/07/25/

Time: 12/55/36

Distance: 3m

Engineer Signature:

Power Source: DC 5V

Site: 2# chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Horizontal

Job No.: star #2554

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Wifi Repeater

Mode: TX Channel 6(802.11n)40MHz

Model: **VRP150**

Freq.

(MHz)

No.

Reading

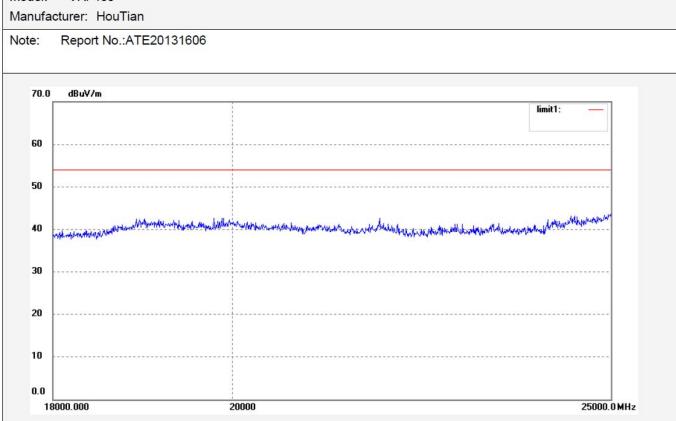
(dBuV/m)

Factor

(dB)

Result

(dBuV/m)



Limit

(dBuV/m)

Margin

(dB)

Detector

Height

(cm)

Degree

(deg.)

Remark



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: star #2357

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi Repeater

Mode: TX Channel 9(802.11n)40MHz

Model: VRP150 Manufacturer: HouTian

Note: Report No.:ATE20131606

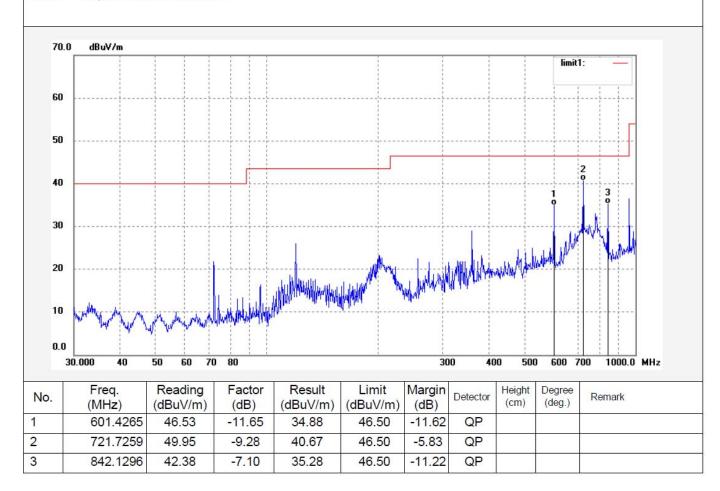
Polarization: Vertical

Power Source: DC 5V

Date: 13/07/25/ Time: 10/35/59

Engineer Signature: STAR

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: star #2358

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi Repeater

Mode: TX Channel 9(802.11n)40MHz

Model: VRP150 Manufacturer: HouTian

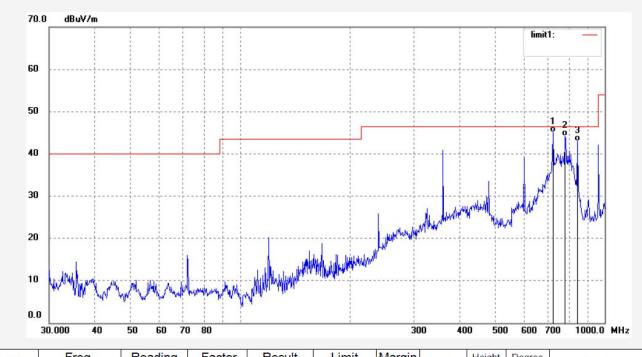
Note: Report No.:ATE20131606

Polarization: Horizontal Power Source: DC 5V

Date: 13/07/25/ Time: 10/38/38

Engineer Signature: STAR

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: star #2531

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Wifi Repeater

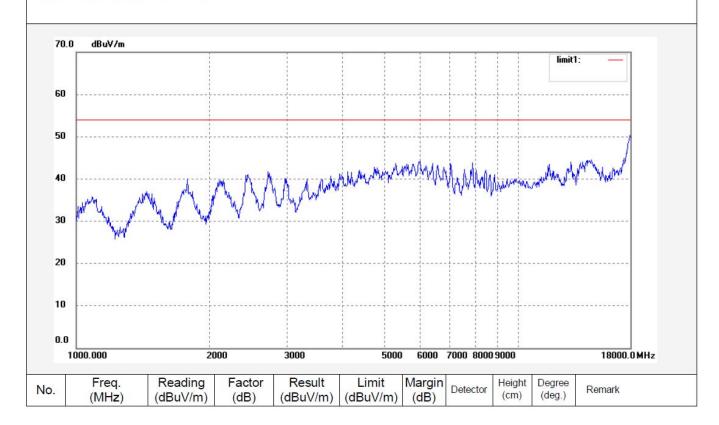
Mode: TX Channel 9(802.11n)40MHz

Model: VRP150
Manufacturer: HouTian

Note: Report No.:ATE20131606

Polarization: Vertical Power Source: DC 5V

Date: 13/07/24/
Time: 11/23/53
Engineer Signature:
Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

18000.0 MHz

Job No.: star #2532

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Wifi Repeater

Mode: TX Channel 9(802.11n)40MHz

Model: VRP150 Manufacturer: HouTian

dBuV/m

70.0

60

50

40

30

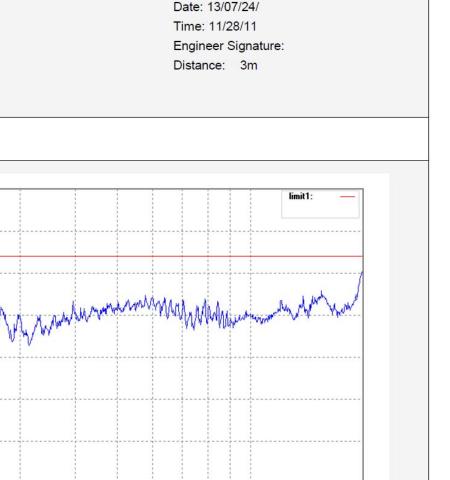
20

10

0.0

1000.000

Note: Report No.:ATE20131606



6000 7000 8000 9000

Polarization: Horizontal

Power Source: DC 5V

3000

2000



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: star #2555 Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Wifi Repeater

Mode: TX Channel 9(802.11n)40MHz

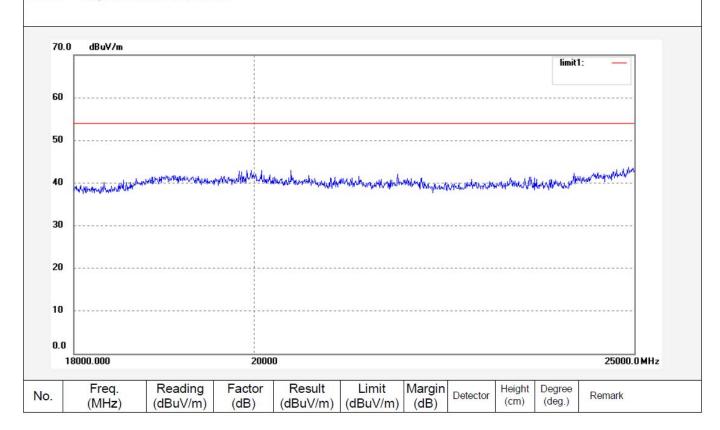
Model: VRP150
Manufacturer: HouTian

Note: Report No.:ATE20131606

Power Source: DC 5V Date: 13/07/25/ Time: 12/58/19 Engineer Signature: Distance: 3m

Horizontal

Polarization:





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 2# chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: star #2556

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Wifi Repeater

Mode: TX Channel 9(802.11n)40MHz

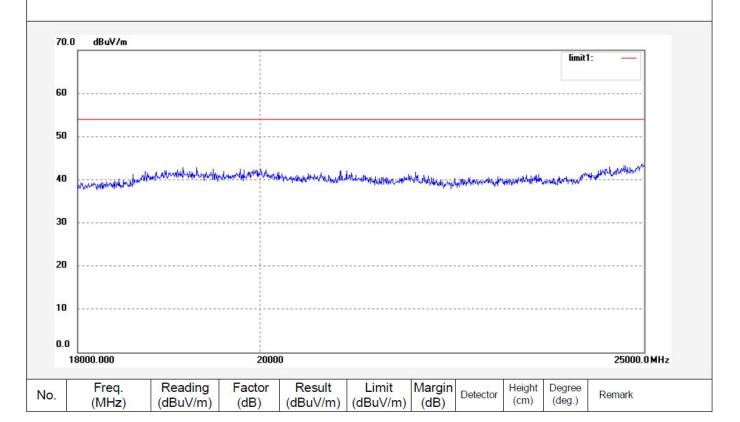
Model: VRP150
Manufacturer: HouTian

Note: Report No.:ATE20131606

Date: 13/07/25/
Time: 13/02/20
Engineer Signature:
Distance: 3m

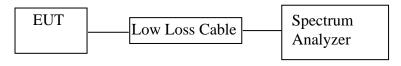
Polarization: Vertical

Power Source: DC 5V



10. CONDUCTED SPURIOUS EMISSION COMPLIANCE TEST

10.1.Block Diagram of Test Setup



(EUT: Wifi Repeater)

10.2. The Requirement For Section 15.247(d)

Section 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. 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).

10.3.EUT Configuration on Measurement

The following equipment is installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

10.3.1. Wifi Repeater (EUT)

Model Number : VRP150 Serial Number : N/A

Manufacturer : Shenzhen HouTian Network Communication Technology

Co., Ltd

10.4. Operating Condition of EUT

- 10.4.1. Setup the EUT and simulator as shown as Section 10.1.
- 10.4.2. Turn on the power of all equipment.
- 10.4.3.Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

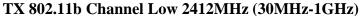
10.5.Test Procedure

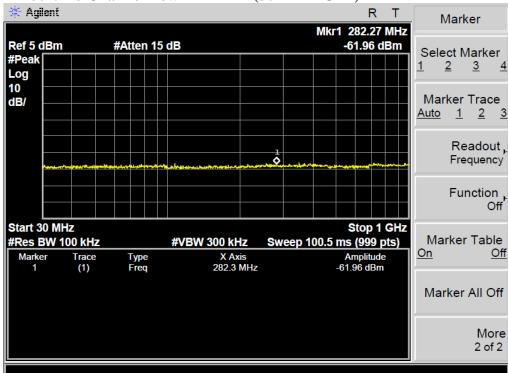
- 10.5.1. The transmitter output was connected to the spectrum analyzer via a low loss cable.
- 10.5.2.Set RBW of spectrum analyzer to 100kHz and VBW to 300kHz (below 1GHz).
- 10.5.3.Set RBW of spectrum analyzer to 1MHz and VBW to 3MHz (above 1GHz).
- 10.5.4. The Conducted Spurious Emission was measured and recorded.

10.6.Test Result

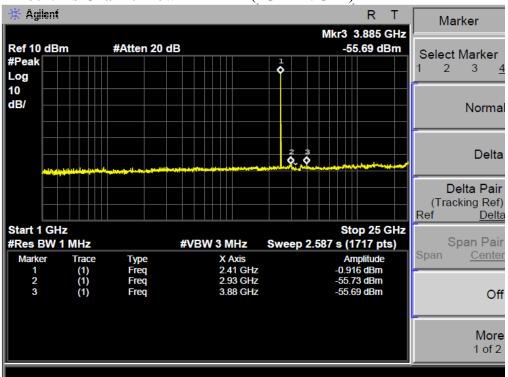
Pass.

The spectrum analyzer plots are attached as below.

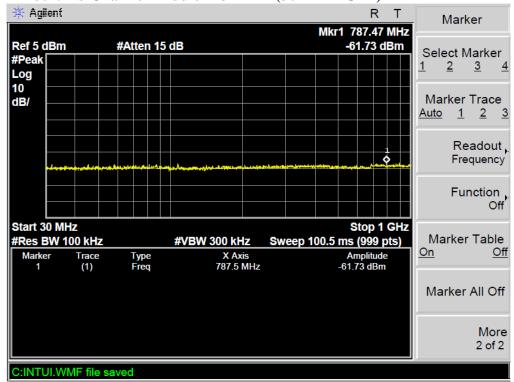




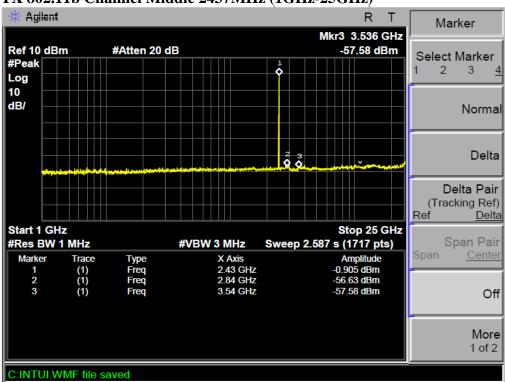
TX 802.11b Channel Low 2412MHz (1GHz-25GHz)

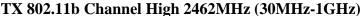


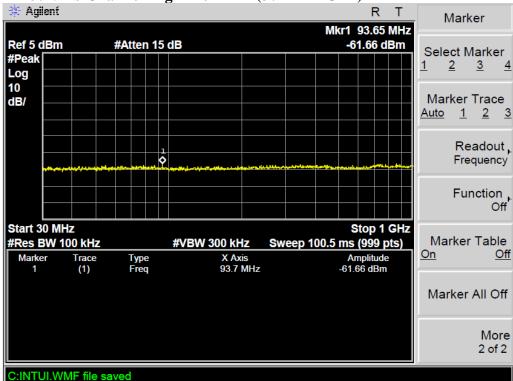
TX 802.11b Channel Middle 2437MHz (30MHz-1GHz)



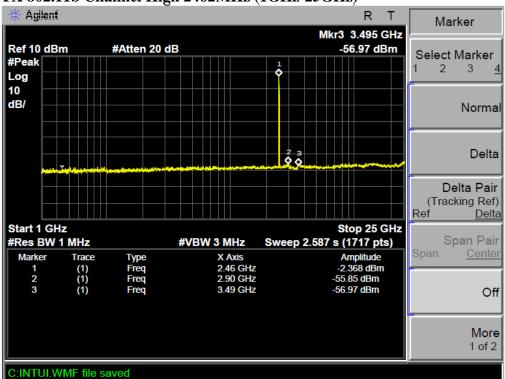
TX 802.11b Channel Middle 2437MHz (1GHz-25GHz)

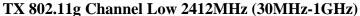


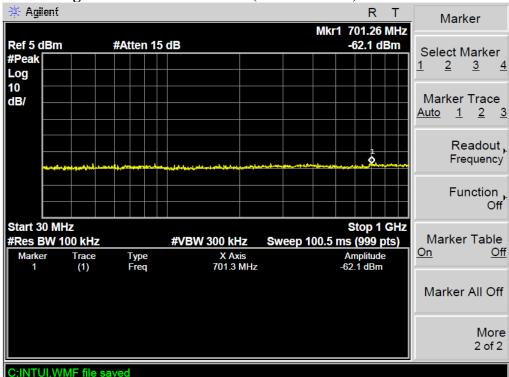




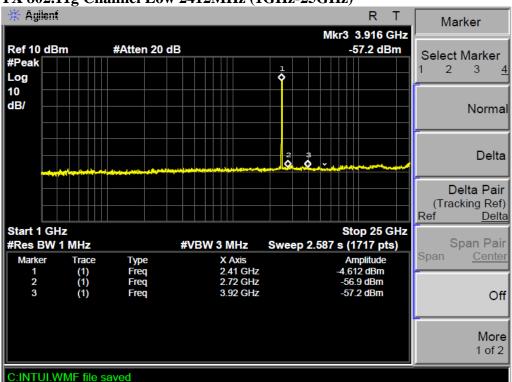
TX 802.11b Channel High 2462MHz (1GHz-25GHz)



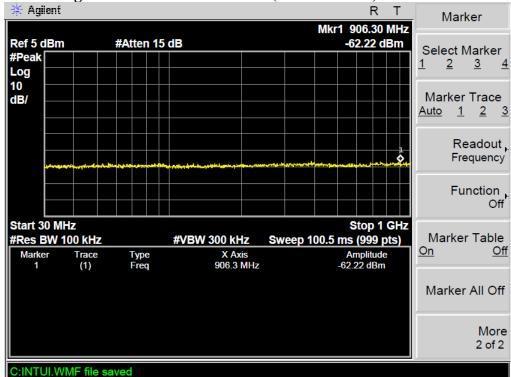




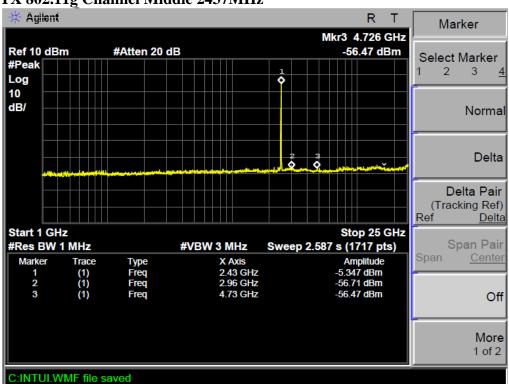
TX 802.11g Channel Low 2412MHz (1GHz-25GHz)

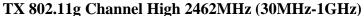


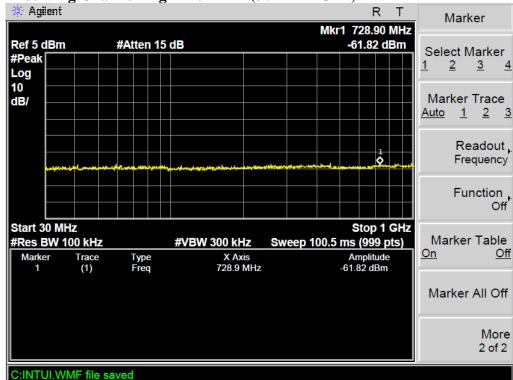




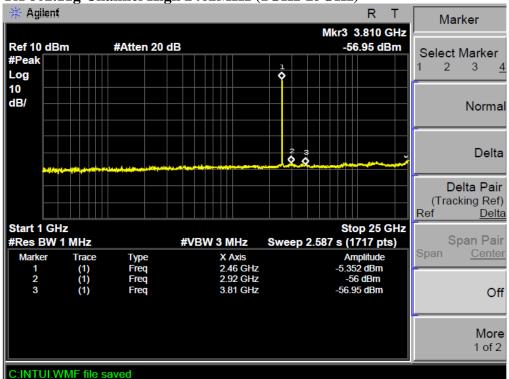
TX 802.11g Channel Middle 2437MHz



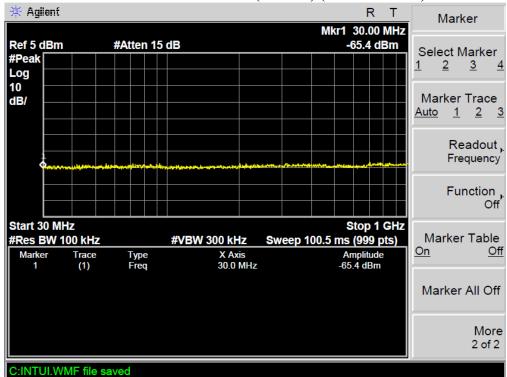




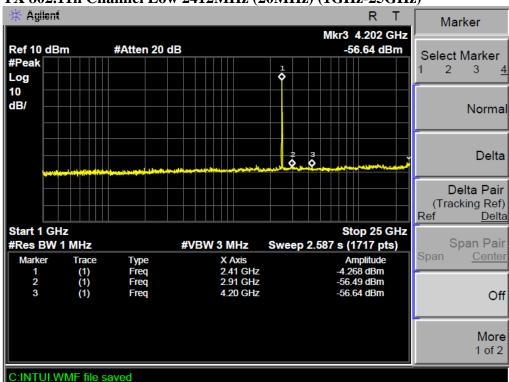
TX 802.11g Channel High 2462MHz (1GHz-25GHz)



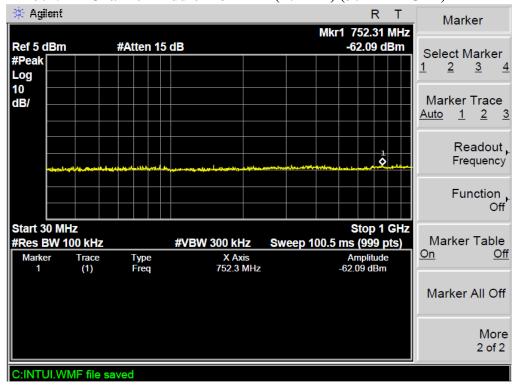




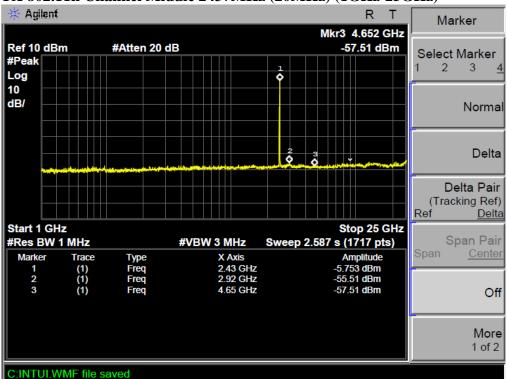
TX 802.11n Channel Low 2412MHz (20MHz) (1GHz-25GHz)



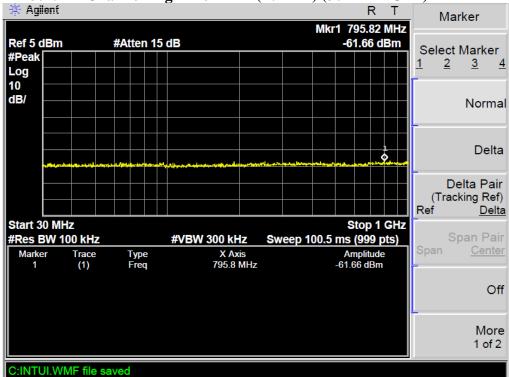
TX 802.11n Channel Middle 2437MHz (20MHz) (30MHz-1GHz)



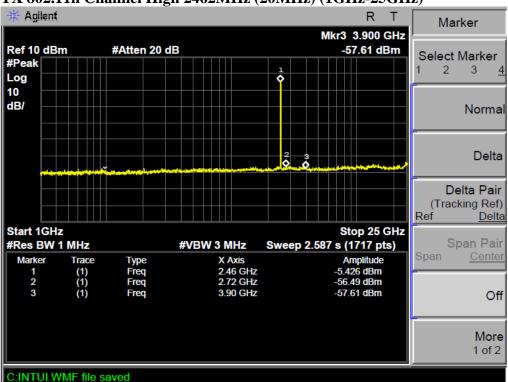
TX 802.11n Channel Middle 2437MHz (20MHz) (1GHz-25GHz)



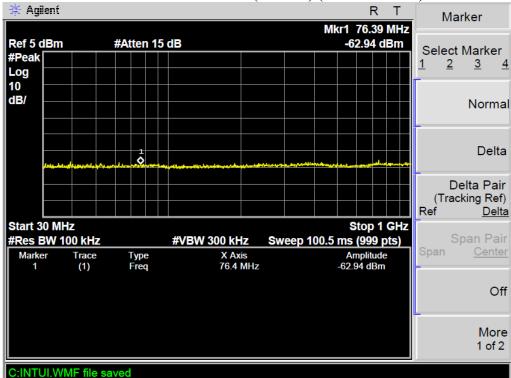




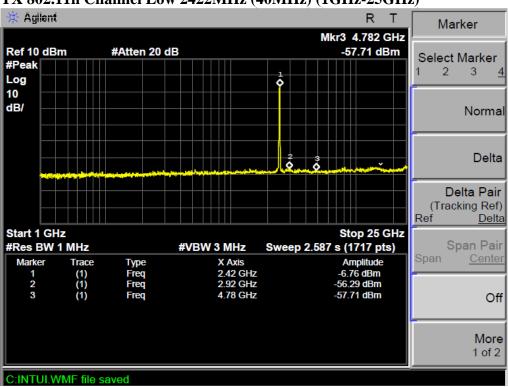
TX 802.11n Channel High 2462MHz (20MHz) (1GHz-25GHz)



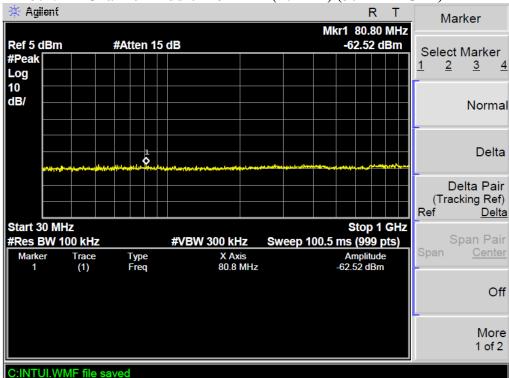




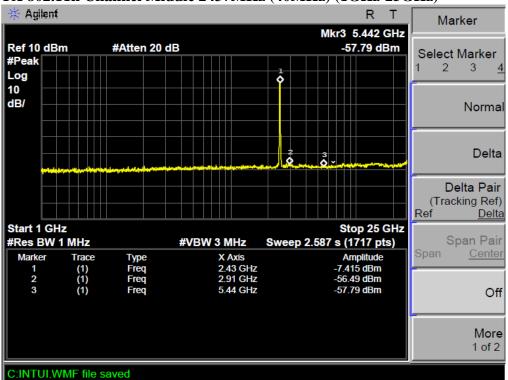
TX 802.11n Channel Low 2422MHz (40MHz) (1GHz-25GHz)

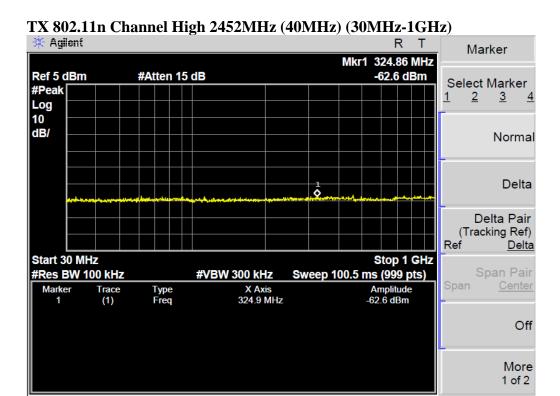




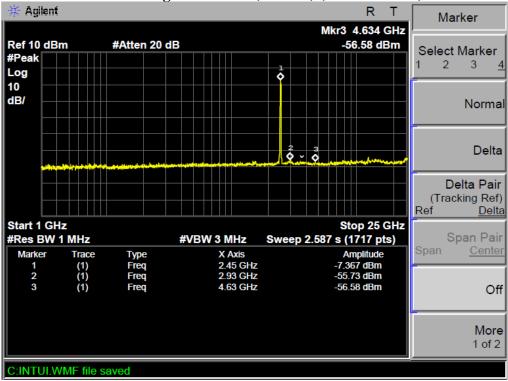


TX 802.11n Channel Middle 2437MHz (40MHz) (1GHz-25GHz)







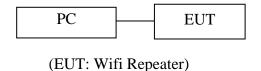


C:INTUI.WMF file saved

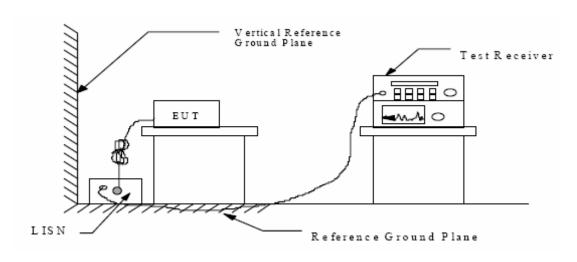
11.AC POWER LINE CONDUCTED EMISSION FOR FCC PART 15 SECTION 15.207(A)

11.1.Block Diagram of Test Setup

11.1.1.Block diagram of connection between the EUT and simulators



11.1.2.Shielding Room Test Setup Diagram



(EUT: Wifi Repeater)

11.2.The Emission Limit

11.2.1.Conducted Emission Measurement Limits According to Section 15.207(a)

Frequency	Limit dB(μV)				
(MHz)	Quasi-peak Level	Average Level			
0.15 - 0.50	66.0 – 56.0 *	56.0 – 46.0 *			
0.50 - 5.00	56.0	46.0			
5.00 - 30.00	60.0	50.0			

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

11.3. Configuration of EUT on Measurement

The following equipment are installed on the Conducted Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

11.3.1.Wifi Repeater (EUT)

Model Number : VRP150 Serial Number : N/A

Manufacturer : Shenzhen HouTian Network Communication Technology

Co., Ltd

11.4. Operating Condition of EUT

11.4.1. Setup the EUT and simulator as shown as Section 11.1.

11.4.2. Turn on the power of all equipment.

11.4.3.Let the EUT work in (TX) mode measure it.

11.5.Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 500hm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4-2009 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

11.6.Power Line Conducted Emission Measurement Results **PASS.**

The frequency range from 150kHz to 30MHz is checked.

Date of Test:July 27, 2013Temperature:25°CEUT:Wifi RepeaterHumidity:50%Model No.:VRP150Power Supply:AC120V/50Hz

Test Mode: TX Test Engineer: Star

Frequency (MHz)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector	Line
0.175269	53.40	65	-11.3	QP	
0.304059	41.30	60	-18.8	QP	
3.256746	37.40	56	-18.6	QP	
0.175269	39.90	55	-14.8	AV	Neutral
0.301641	27.00	50	-23.2	AV	
2.532561	30.60	46	-15.4	AV	
0.173183	52.10	65	-12.7	QP	
0.239296	43.20	62	-18.9	QP	
3.349036	37.90	56	-18.1	QP	т'
0.174571	40.10	55	-14.6	AV	Live
0.239296	32.60	52	-19.5	AV	
2.743053	31.70	46	-14.3	AV	

Emissions attenuated more than 20 dB below the permissible value are not reported. The spectral diagrams are attached as below.

ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 B

EUT: Wifi Repeater M/N:VRP150

Manufacturer: HouTian

Operating Condition: ON

Test Site: 1#Shielding Room Operator: star Test Specification: L 120V/60Hz

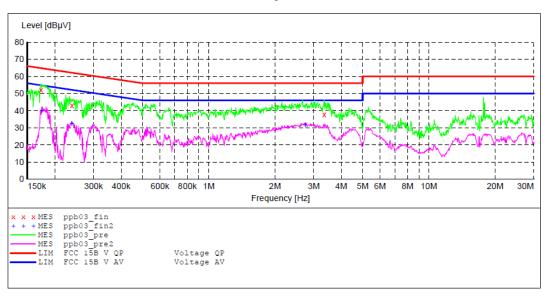
Comment: Report No.:ATE20131606 Start of Test: 7/27/2013 / 3:09:17PM

SCAN TABLE: "V 150K-30MHz fin"
Short Description: __SUB_STD_VTERM2 1.70

Stop Step Start Detector Meas. IF Transducer Time Bandw.

Frequency Frequency Width 150.0 kHz 30.0 MHz 4.5 kHz 9 kHz NSLK8126 2008 QuasiPeak 1.0 s

Average



MEASUREMENT RESULT: "ppb03_fin"

7	/27/2013 3:1	4PM						
	Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
	MHz	dΒμV	dB	dΒμV	dB			
	0.173183	52.10	11.6	65	12.7	QP	L1	GND
	0.239296	43.20	11.9	62	18.9	QP	L1	GND
	3.349036	37.90	12.3	56	18.1	QP	L1	GND

MEASUREMENT RESULT: "ppb03 fin2"

7/2	7/2013 3:	14PM						
	Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
	MHz	dΒμV	dB	dΒμV	dB			
	0.174571	40.10	11.6	55	14.6	AV	L1	GND
	0.239296	32.60	11.9	52	19.5	AV	L1	GND
	2.743053	31.70	12.3	46	14.3	AV	L1	GND

ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 B

Wifi Repeater M/N:VRP150

Manufacturer: HouTian Operating Condition: ON

Test Site: 1#Shielding Room

Operator: star Test Specification: N 120V/60Hz

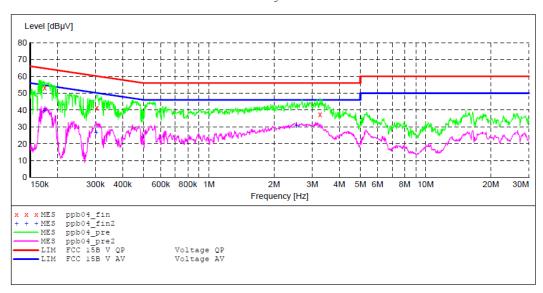
Report No.:ATE20131606 7/27/2013 / 3:15:00PM Comment: Start of Test:

SCAN TABLE: "V 150K-30MHz fin"
Short Description: _SUB S _____SUB_STD_VTERM2 1.70

Detector Meas. Step IF Start Stop Transducer Frequency Frequency Width

Bandw. Time 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008

Average



MEASUREMENT RESULT: "ppb04 fin"

7/27/2013 3	:17PM						
Frequency MHz				Margin dB	Detector	Line	PE
0.175269	53.40	11.6	65	11.3	QP	N	GND
0.304059	41.30	12.1	60	18.8	QP	N	GND
3.256746	37.40	12.3	5.6	18.6	OP	N	GND

MEASUREMENT RESULT: "ppb04 fin2"

7/	27/2013 3:1	7PM						
	Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
	MHz	dΒμV	dB	dΒμV	dB			
	0.175269	39.90	11.6	55	14.8	AV	N	GND
	0.301641	27.00	12.1	50	23.2	AV	N	GND
	2.532561	30.60	12.4	46	15.4	AV	N	GND

12.ANTENNA REQUIREMENT

12.1.The Requirement

According to 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.

12.2.Antenna Construction

Device is equipped with unique antenna, which isn't displaced by other antenna. Therefore, the equipment complies with the antenna requirement of Section 15.203.

