FCC PART 15C TEST REPORT FOR CERTIFICATION On Behalf of

Guangdong Hybroad Vision Electronics Technology Company Ltd.

DIRECT VINA BOX

Model Number: A301

FCC ID: 2AGUQ-A301

Prepared for: Guangdong Hybroad Vision Electronics Technology Company Ltd. NO. 2 & 4 Floor No.1 Factory BLDS, Yuxing Industrial Park, Ranjiangdongsi Road, Torch Hi-Tech Industrial Development Zone, Zhongshan Guangdong China

Prepared By: Audix Technology (Shenzhen) Co., Ltd. No. 6, Ke Feng Rd., 52 Block, Shenzhen Science & Industrial Park, Nantou, Shenzhen, Guangdong, China

Tel: (0755) 26639496

Report Number : ACS-F16007

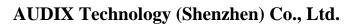
Date of Test : Jan.01~29, 2016

Date of Report : Feb.03, 2016



TABLE OF CONTENTS

Des	cription	Page
1.	SUMMARY OF STANDARDS AND RESULTS	1-1
	1.1. Description of Standards and Results	
2.	GENERAL INFORMATION	
	2.1. Description of Device (EUT)	
	2.2. Test Information	2-2
	2.1. Tested Supporting System Details	2-2
	2.2. Block Diagram of connection between EUT and simulators	
	2.3. Test Facility	
•	2.4. Measurement Uncertainty (95% confidence levels, k=2)	
3.	POWER LINE CONDUCTED EMISSION TEST	
4.	RADIATED EMISSION TEST	
	4.1. Test Equipment	
	4.2. Block Diagram of Test Setup	
	4.3. Radiated Emission Limit	
	4.4. EUT Configuration on Test4.5. Operating Condition of EUT	
	4.6. Test Procedure	
	4.7. Radiated Emission Test Results	
5.	CONDUCTED SPURIOUS EMISSIONS	
٥.	5.1. Test Equipment	
	5.2. Limit	
	5.3. Test Procedure	
	5.4. Test result	
6.	BAND EDGE COMPLIANCE TEST	6-1
	6.1. Test Equipment	6-1
	6.2. Limit	
	6.3. Test Produce	
	6.4. Test Results	6-1
7.	6dB Bandwidth Test	7-1
	7.1. Test Equipment	7-1
	7.2. Limit	
	7.3. Test Procedure	
_	7.4. Test Results	
8.	OUTPUT POWER TEST	
	8.1. Test Equipment	
	8.2. Limit (FCC Part 15C 15.247 b(3))	
	8.3. Test Procedure 8.4. Test Results	
Λ		
9.	POWER SPECTRAL DENSITY TEST	
	9.1. Test Equipment	
	9.2. Limit	
	9.3. Test Procedure	
10.	MPE ESTIMATION	
10.		
	10.1. Limit for General Population/ Uncontrolled Exposures	
11.	ANTENNA REQUIREMENT	
11.	ATTEMIA NEQUINEMENT	11-1





AUUU-AJUI	
11.1. Standard Applicable	11-1
11.2. Antenna Connected Construction	11-1
DEVIATION TO TEST SPECIFICATIONS	12-1
PHOTOGRAPH OF TEST	
13.1. Photos of Radiated Emission Test	13-1
PHOTOS OF THE EUT	14-1
	11.1. Standard Applicable



TEST REPORT CERTIFICATION

Applicant : Guangdong Hybroad Vision Electronics Technology Company Ltd.

EUT Description : DIRECT VINA BOX

FCC ID : 2AGUQ-A301

(A) Model No. : A301 (B) Serial No. : N/A

(C) Test Voltage : DC 12V From Adapter Input AC 120V/60Hz

Tested for comply with:

FCC CFR 47 Part 15 Subpart C: 2014

Test procedure used: ANSI C63.10: 2013 KDB558074 D01 v03r03

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. to confirm comply with all the FCC Part 15 Subpart C requirements. The test results are contained in this test report and AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. is assumed full responsibility for the accuracy and completeness of these tests. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC and IC requirements. This report contains data that are not covered by the NVLAP accreditation.

This Report is made under FCC Part 2.1075. No modifications were required during testing to bring this product into compliance.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

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Prepared by:

Monica Liu / Assistant

Reviewed by:

Sunny Lu / Assistant Manager

B 信華科技 (深圳) 有限公司
Audix Technology (Shenzhen) Co Lid.
EMC 部門報告專門 註
Stamp only for EMC Dept Coput

Approved & Authorized Signer: Signature:

Date of Test: Jan.01~29, 2016 Report of date:

David Jin / Manager

Feb.03, 2016



1. SUMMARY OF STANDARDS AND RESULTS

1.1.Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

EMISSION					
Description of Test Item	Standard	Results			
Power Line Conducted Emission	FCC Part 15: 15.207	N/A			
Radiated Emission	FCC Part 15: 15.209	PASS			
Band Edge Compliance	FCC Part 15: 15.247	PASS			
Conducted spurious emissions	FCC Part 15: 15.247	PASS			
6dB Bandwidth	FCC Part 15: 15.247	PASS			
Peak Output Power	FCC Part 15: 15.247	PASS			
Power Spectral Density	FCC Part 15: 15.247	PASS			
Antenna requirement	FCC Part 15: 15.203	PASS			
Antenna requirement	FCC Part 15: 15.203	PASS			

N/A is an abbreviation for Not Applicable.



2. GENERAL INFORMATION

2.1.Description of Device (EUT)

Product Name : DIRECT VINA BOX

Model Number : A301

FCC ID : 2AGUQ-A301

Radio : IEEE802.11 b/g/n

Operation : IEEE 802.11b: 2412MHz—2462MHz Frequency IEEE 802.11g: 2412MHz—2462MHz

IEEE802.11n HT20: 2412MHz—2462MHz IEEE802.11n HT40: 2422MHz—2452MHz

Modulation : IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK)

Technology IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK)

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

Antenna Assembly: Wire Antenna, 2dBi gain

Gain

Applicant : Guangdong Hybroad Vision Electronics Technology Company Ltd.

NO. 2 & 4 Floor No.1 Factory BLDS, Yuxing Industrial Park, Ranjiangdongsi Road, Torch Hi-Tech Industrial Development Zone,

Zhongshan Guangdong China

Remote Controller: Manufacturer: Hybroad, M/N: N/A

Power Adapter: Mass, M/N: WEF1200100A1BA

DC Cable: Shielded, Undetachable, 1.5m

AV Cable : Shielded, Detachable, 1.0m

Date of Test : Jan.01~29, 2016

Date of Receipt : Dec.30, 2015



2.2. Test Information

A special test software was used to control EUT work in Continuous TX mode(nearly 100% duty cycle), and select test channel, wireless mode and data rate.

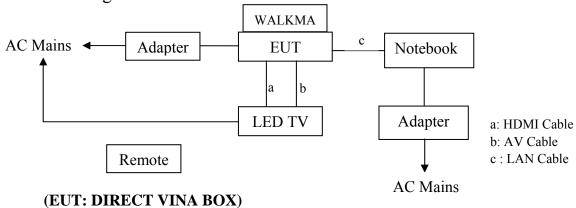
1 1 4 4 . C 4.						
Tested mode, channel, and data rate information						
data rate	Channel	Frequency				
(Mpbs)(see Note)		(MHz)				
1	Low:CH1	2412				
1	Middle: CH6	2437				
1	High: CH11	2462				
6	Low:CH1	2412				
6	Middle: CH6	2437				
6	High: CH11	2462				
MCS0	Low:CH1	2412				
MCS0	Middle: CH6	2437				
MCS0	High: CH11	2462				
MCS0	Low:CH1	2422				
MCS0	Middle: CH4	2437				
MCS0	High: CH7	2452				
	data rate (Mpbs)(see Note) 1 1 1 6 6 6 MCS0 MCS0 MCS0 MCS0 MCS0 MCS0 MCS0	data rate (Mpbs)(see Note) Channel 1 Low :CH1 1 Middle: CH6 1 High: CH11 6 Low :CH1 6 Middle: CH6 6 High: CH11 MCS0 Low :CH1 MCS0 Middle: CH6 MCS0 High: CH11 MCS0 Low :CH1 MCS0 Low :CH1 MCS0 Middle: CH4				

Note: 1. According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.

2.1.Tested Supporting System Details

No.	Description	ACS No.	Manufacturer	Model	Serial Number
	Notebook		LENOVO	E430C	
1.		Power Adapter: Man	ufacturer: LENOV	O, M/N: ADLX90NO	CT3A
		LAN Cable: Unshield	ded, Detachable, 1.:	5m	
2	I ED TV		KO	OLE 19250-B	
2.	LED TV				
3.	WALKMAN		SONY	NZW-S540	

2.2. Block Diagram of connection between EUT and simulators







2.3. Test Facility

Site Description

3m Anechoic Chamber

Audix Technology (Shenzhen) Co., Ltd.

Name of Firm : No. 6, Ke Feng Rd., 52 Block, Shenzhen

Science & Industrial Park, Nantou, Shenzhen,

Guangdong, China

Certificated by FCC, USA

: Registration Number: 90454

Valid Date: Dec.30, 2017

Certificated by FCC, USA

3m & 10m Anechoic Chamber : Registration Number: 794232

Valid Date: Jul.12, 2016

EMC Lab. Certificated by Industry Canada

Registration Number: IC 5183A-1

Valid Date: May.14, 2017

Certificated by DAkkS, Germany

: Registration No: D-PL-12151-01-00

Valid Date: Dec.15, 2016

Accredited by NVLAP, USA NVLAP Code: 200372-0

Valid Date: Mar.31, 2016

2.4. Measurement Uncertainty (95% confidence levels, k=2)

Test Item	Uncertainty	
Uncertainty for Conduction emission test in No. 1 Conduction	3.4dB (150KHz to 30MHz)	
	2.6 dB(30~200MHz, Polarization: H)	
Uncertainty for Radiation Emission test	2.6 dB(30~200MHz, Polarization: V)	
in 3m chamber	3.0 dB(200M~1GHz, Polarization: H)	
	2.8 dB(200M~1GHz, Polarization: V)	
Uncertainty for Radiation Emission test in	6.3 dB (1~6GHz, Distance: 3m)	
3m chamber (1GHz-18GHz)	5.7 dB (6~18GHz, Distance: 3m)	
Uncertainty for Radiated Spurious	3.6 dB	
Emission test in RF chamber	3.0 d B	
Uncertainty for Conduction Spurious	2.0 dB	
emission test	2.0 dB	
Uncertainty for Output power test	0.8 dB	
Uncertainty for Bandwidth test	83 kHz	
Uncertainty for DC power test	0.1 %	
Uncertainty for test site temperature and	0.6°C	
humidity	3%	



Page 3-1
ION TEST 07, Tests to demonstrate compliance with the remploy battery power for operation and in provisions for operation while connected to



4. RADIATED EMISSION TEST

4.1.Test Equipment

4.1.1.For frequency range 30MHz~1000MHz (In 3m Anechoic Chamber)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	3#Chamber	AUDIX	N/A	N/A	Mar.28,15	1 Year
2.	EMI Spectrum	Agilent	E4407B	MY41440292	Apr.28,15	1 Year
3.	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	Apr.28,15	1 Year
4.	Amplifier	HP	8447D	2648A04738	Apr.28,15	1 Year
5.	Trilog-Broadband Antenna	SCHWARZBECK	VULB 9168	9168-493	May.06,15	1 Year
6.	RF Cable	MIYAZAKI	CFD400-N W(3.5M)	No.3	Apr.28,15	1 Year
7.	RF Cable	MIYAZAKI	CFD400-L W(22M)	No.7	Apr.28,15	1 Year
8.	Coaxial Switch	Anritsu	MP59B	6201397222	Apr.28,15	1 Year
9.	Test Software	AUDIX	E3	6.2009-5-21a(n)	N/A	N/A

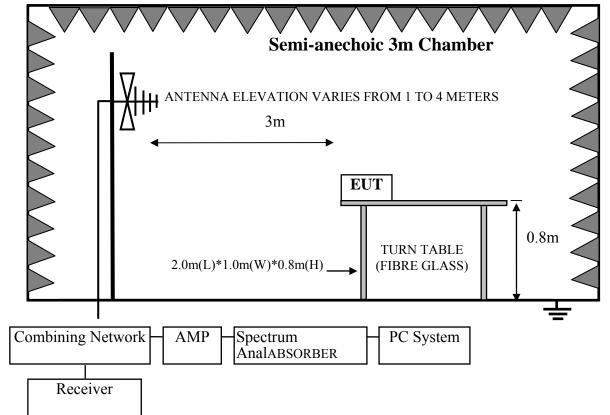
4.1.2. For frequency range 1GHz~40GHz (In 3m Anechoic Chamber)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	Apr.28,15	1 Year
2.	Horn Antenna	ETC	MCTD 1209	DRH15F03007	Feb.03,15	1 Year
3.	Amplifier	Agilent	8449B	3008A02495	Apr.28,15	1 Year
4.	RF Cable	Hubersuhner	SUCOFLEX106	77977/6	Apr.28,15	1 Year
5.	Horn Antenna	ETS	3116	00060088	Nov.18.15	1 Year
6.	Test Software	AUDIX	E3	6.2009-5-21a(n)	N/A	N/A

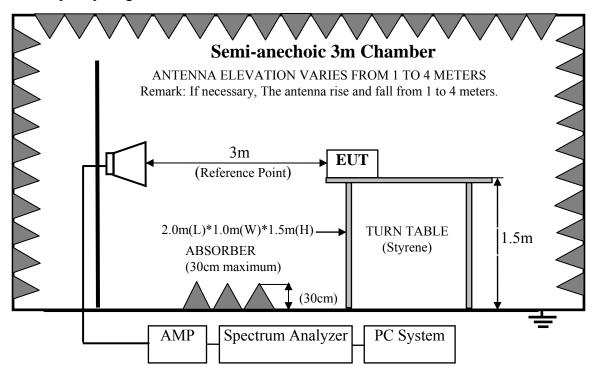


4.2. Block Diagram of Test Setup

For frequency range 30MHz-1000MHz



For frequency range 1GHz-25GHz





4.3. Radiated Emission Limit

4.3.1.15.247&209 limits

FREQUENCY	DISTANCE	FIELD STRENGTHS LIM	
MHz	Meters	μV/m	dB(μV)/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(μV)/m (Peak)	
		$54.0 \text{ dB}(\mu\text{V})/\text{m} \text{ (Average)}$	

Remark: (1) Emission level $dB\mu V = 20 \log Emission level \mu V/m$

- (2) The smaller limit shall apply at the cross point between two frequency bands.
- (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

4.3.2.15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(2)

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

4.4.EUT Configuration on Test

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

4.4.1.DIRECT VINA BOX (EUT)

Model Number : A301 Serial Number : N/A

4.4.2. Support Equipment: As Tested Supporting System Details, in Section 2.2.



4.5. Operating Condition of EUT

- 4.5.1. Setup the EUT and simulator as shown as Section 4.2.
- 4.5.2. Turn on the power of all equipments.
- 4.5.3. Let EUT work in Tx(WiFi 2.4GHz) mode

4.6 Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground for frequency 30MHz~1000MHz, 1.5 meter high above ground for frequency above 1GHz and put the absorbing with 2.4m(L)*2.4m(W)*0.3m(H) on the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it.EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna for frequency 30MHz~1000MHz, and the Horm antenna is used as receiving antenna for frequency above 1GHz. Both horizontal and vertical polarization of the antenna are set on test.

This test was performed with EUT in X, Y, Z position, and the worse case was found when EUT in X position as test photo indicated.

The bandwidth of the EMI test receiver (R&S ESVS10) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 3MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

The frequency range from 30MHz to 10th harmonic (25GHz) are checked. and no any emissions were found from 18GHz to 25GHz, So the radiated emissions from 18GHz to 25GHz were not record.

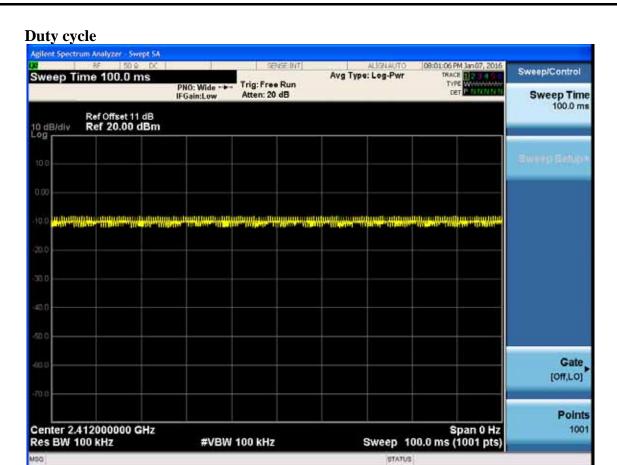
4.7. Radiated Emission Test Results

PASS.

All the emissions from 30MHz to 25 GHz were comply with 15.209 limits.

Note: For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

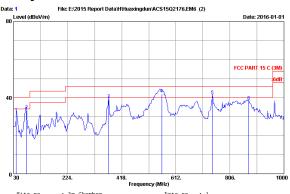




Note: The Duty Cycle is close to 100%.

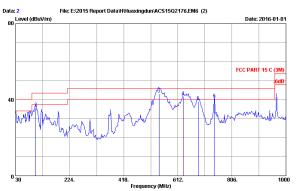
page 4-6

Frequency: 30MHz~1GHz



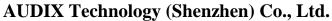
_	No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
	1	39.700	14.28	0.71	16.94	31.93	40.00	8.07	QP
	2	76.560	7.46	0.98	24.71	33.15	40.00	6.85	QP
	3	371.440	15.85	2.12	21.06	39.03	46.00	6.97	QP
	4	561.570	19.11	2.67	20.09	41.87	46.00	4.13	QP
	5	742.950	20.53	3.12	17.34	40.99	46.00	5.01	QP
	6	873.900	21.73	3.43	12.90	38.06	46.00	7.94	QP

Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20d8 below the official limit are not reported.



No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.000	20.30	0.51	11.65	32.46	40.00	7.54	QP
2	102.750	11.74	1.13	22.76	35.63	43.50	7.87	QP
3	544.900	18.72	2.63	21.58	42.93	46.00	3.07	QP
4	631.400	19.81	2.84	18.92	41.57	46.00	4.43	QP
5	684.750	20.10	2.98	15.87	38.95	46.00	7.05	QP
6	742.950	20.53	3.12	16.65	40.30	46.00	5.70	QP

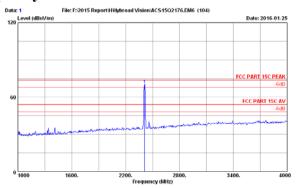
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit are not reported.





FCC ID: 2AGUQ-A301 page

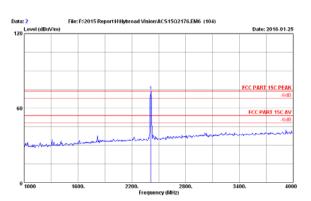
Frequency: 1GHz~18GHz



Site no. : 3m Chamber Data :
Dis. / Ant. : 3m 2018 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9-6752.8v
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Node : IEEE802.11b 2412NHz Tx
A301

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor	Loss	factor	Reading		Limits		Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2412.000	28.29	7.35	36.62	70.95	69.97	74.00	4.03	Peak

Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



Site no. : 3m Chamber Data n

Die. / Ant. : 3m 2018 3115-4877 Ant. pol. :

Limit : FCC PART 150 PEKK

Env. / Ins. : 23.9°C/\$2.8\

Engineer : Leo-Li

EUT : DIRECT VINA BOX

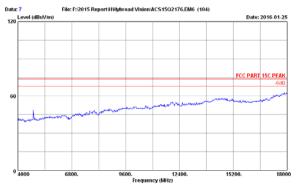
Power rating : Dc 12V From Adapter Input AC 120V/60Hz

Test Node : IEEE802.11b 2412MHz TX

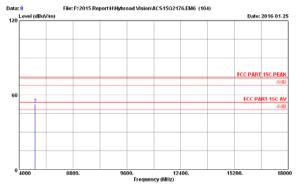
A301

1 2412.000

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



Site no. : 3m Chamber Data :
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9°C/52.8%
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Mc
Test Node : IKERSOZ.11b 2412HMc Tx
A301

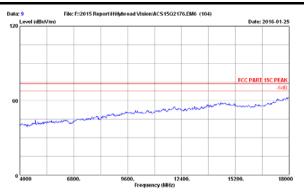


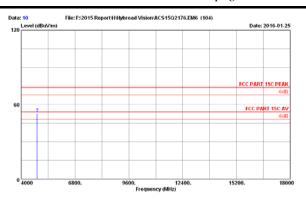
Site no. : 3m Chamber Data :
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 33.9°c/52.8%
Englineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Ms
Test Mode : IEEESOC.11b 2412Mms Tx
AD01

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	33.15	9.46	35.53	39.01	46.09	54.00	7.91	Average
2	4824.000	33.15	9.46	35.53	45.81	52.89	74.00	21.11	Peak

Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20d8 below the official
limit are not reported.

page





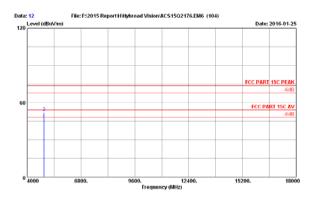
Site no. : 3m Chamber Data n
Dis. / Ant : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9°c/52.80
Equipmer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Mz
Test Node : IEEESO2.11b 2412MHz TX
A201

Ant. Cable AHP
Factor Loss factor Reading
(dB/m) (dB) (dB) (dBuV) Emission
Level Limits Hargin Remark
(dBuV/m) (dBuV/m) (dB)

44.57 54.00 9.43 Average
52.94 74.00 21.06 Peak

Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20d8 below the official
limit are not reported.

File: F:\2015 Report\H\text{Hybroad Vision\ACS15Q2176.EM6} (104) 120 Level (dBuV/m) Date: 2016-01-25 FCC PART 15C PEAR 9600. 12400. Frequency (MHz)



Ant. Cable AHP
Factor Loss factor Reading
(dB/m) (dB) (dB) (dBuV) Emission Level Limits Margin Remark (dBuV/m) (dBuV/m) (dB)

Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20d8 below the official
limit are not reported.

12400

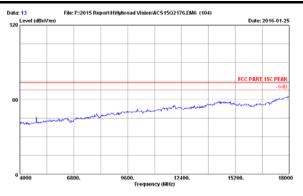
Frequency (MHz)

File: F: 2015 Report HHybroad Vision ACS1502176.EM6 (104)

page

Date: 2016-01-25

FCC PART 15C PEAK



Site no. : 3m Chamber Data :
Dis./Ant. : 3m 2018 3115-4877 Ant. pol. :
Limit : FCC PART 1SC PEAK
Env./Ins. : 23.9°C52.83
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Node : IEEE802.11b 2437MHz TX
A301

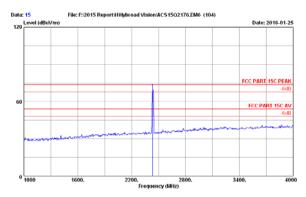
Data: 14

120 Level (dBuV/m)

Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEK
Env. / Ins. : 23.9°C52.8*
Engineer : Leo-Li
EUT : DIPECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Node : IXEE802.11b 2437HHz Tx
A301

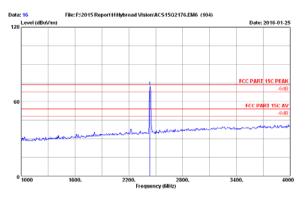
Ant. Cable AHP
Factor Loss factor Reading
(dB/m) (dB) (dBu) Emission Level Limits Hargin Remark (dBuV/m) (dBuV/m) (dB)

Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20d8 below the official
limit are not reported.



Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor

The emission levels that are 20dB below the official limit are not reported.

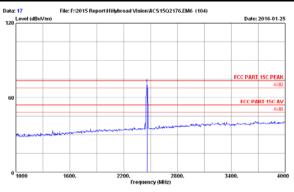


Ant. Cable AMP Emission | Factor Loss factor | Peading Level | Limits | Margin | Pemark | (dB/m) | (dB) | (dBuV) | (dBuV/m) | (dBuV/m) | (dB) | (dBuV/m) |

Pemarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



page

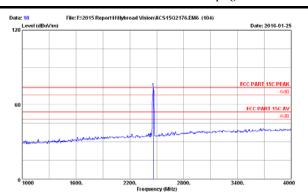


Site no. : 3m Chamber Data :
Dis. / Ant. : 3m 2018 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9°C52.89
Engineer : Leo-Li
EUT : DIPECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Nz
Test Mode : IEEE802.11b 2462MHz Tx
A301

No. Freq. Factor Loss factor Pending Level Limits Hargin Remark
(MHz) (dB/m) (dB) (dB) (dB) (dBWV) (dBwV/m) (dBwV/m) (dBwV/m)

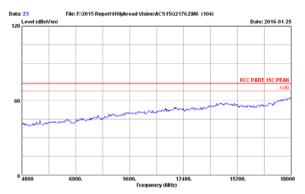
1 2462.000 28.35 7.43 36.60 71.25 70.43 74.00 3.57 Peak

Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2018 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEEK
Env. / Ins. : 23.9°C52.8*
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Node : IEEES02.11b 2462HHz Tx
A301

Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



File: F:2015 Report HHybroad Vision ACS1502176.EM6 (104) 120 Level (dBuV/m) Date: 2016-01-25 FCC PART 15C PEAK 9600. 12400. Frequency (MHz)

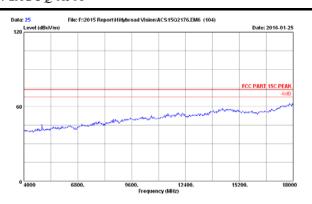
Site no. : 3m Chamber Data :
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9°c/52.8%
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEEBOZ.11b 2462MHz Tx
A301

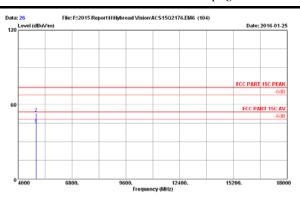
Ant. Cable AHP
Factor Loss factor Reading
(dB/m) (dB) (dB) (dB) Emission Level Limits Margin Remark (dBuV/m) (dBuV/m) (dB)

Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20d8 below the official
limit are not reported.



page





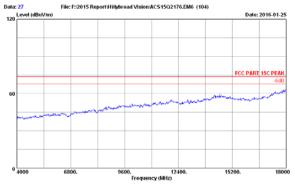
Site no. : 3m Chamber Data n
Dis. / Ant : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9°c/52.80
Equipmer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Mz
Test Node : IEEESO2.11b 2462MHz Tx
A201

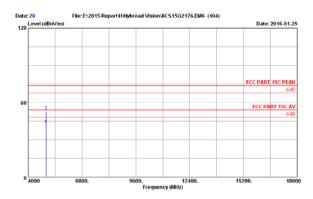
Ant. Cable AHP
Factor Loss (aB) (dB) (dB) (dB) (dB) (dB) (dBUV)

33.35 9.51 35.48 36.67
33.35 9.51 35.48 45.84 Emission
Level Limits Hargin Remark
(dBuV/m) (dBuV/m) (dB)

44.05 54.00 9.95 Average
53.22 74.00 20.78 Peak

Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20d8 below the official
limit are not reported.





Site no. : 3m Chamber Data I
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART ISC PEAK
Env. / Ins. : 23.9°C/S2.8%
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEES02.11g 2462HHz TX
A301

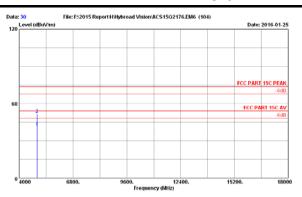
No.	Freq.		Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Hargin (dB)	Remark
1 2	4924.000 4924.000			9.51 9.51	35.48 35.48	34.61 45.67	41.99 53.05	54.00 74.00	12.01 20.95	Average Peak
	Remarks:	1.	Emission	Level	- Antenna	Factor +	Cable Lo	ss + Rea	ding	

-Amp Factor

2. The emission levels that are 20dB below the official limit are not reported.

page



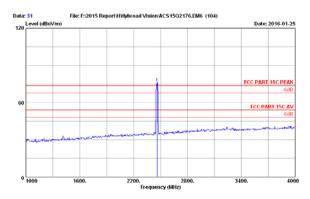


Site no. : 3m Chamber Data n
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9°c/52.6%
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 13V From Adapter Input AC 120V/60Hz
Test Mode : IEEEBOZ.11g 2462HHz Tx
A301

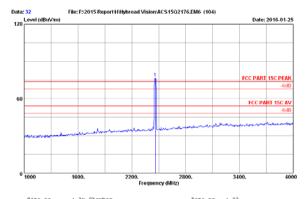
No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)		Margin (dB)	Remark
1	4924.000	33.35	9.51	35.48	33.56	40.94	54.00	13.06	Average
2	4924.000	33.35	9.51	35.48	99.11	51.49	74.00	22.51	Peak
	Remarks: 1.	Emissio	n Level	= Antenne	Factor +	Cable Lo	nn + Ren	ding	

-Amp Factor

The emission levels that are 20dB below the official limit are not reported.



Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading



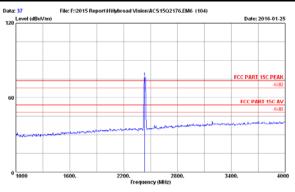
Site no. : 3m Chamber Data I
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART ISC PEAK
Env. / Ins. : 23.9°C/S2.8%
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEES02.11g 2462HHz TX
A301

Ant. Cable AMP Emission | Emissio

Pemarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



page

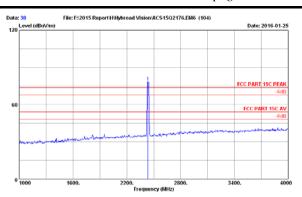


Site no. : 3m Chamber Data :
Dis. / Ant. : 3m 2018 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9°C52.8°
Engineer : Leo-Li
EUT : DIPECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Nz
Test Mode : IEEE802.11g 2437MHz Tx
A301

No. Freq. Factor Loss factor Pending Level Limits Hargin Remark
(MHz) (dB/m) (dB) (dB) (dB) (dBWV) (dBwV/m) (dBwV/m) (dBwV/m)

1 2437.000 28.32 7.39 36.61 77.27 76.37 74.00 -2.37 Peak

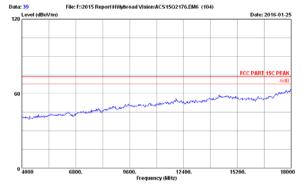
Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.

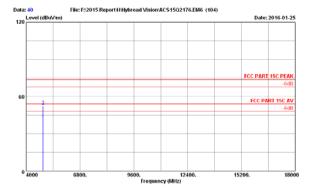


Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2018 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEEK
Env. / Ins. : 23.9°C52.8*
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Node : IEEES02.11g 2437HHz Tx
A301

| Ant. Cable AMP | Emission | No. Freq. Factor Loss factor | Reading Level Limits | No. |

Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.





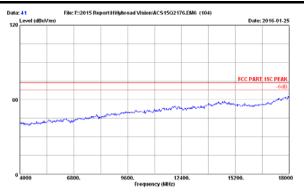
Site no. : 3m Chamber Data :
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9°c/52.8%
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEEBO2.11g 2437MHz Tx
A301

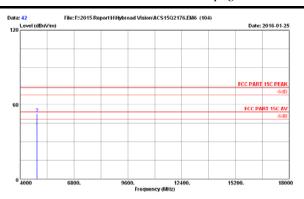
Ant. Cable AMP Factor Loss factor Reading (dB/m) (dB) (dB) (dBuV) Emission Level Limits Margin Remark (dBuV/m) (dBuV/m) (dB)

Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20d8 below the official
limit are not reported.



page 4-14



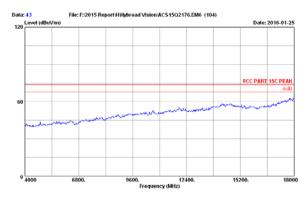


Site no. : 3m Chamber Data no. : 42
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. : MORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9°C/52.8%
Engineer : Leo-Li
EUT : DIEECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2437MHz Tx
A301

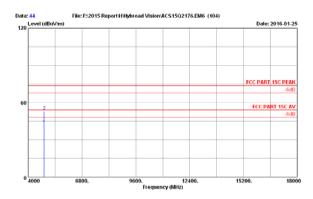
No.	Freq.	Factor (dB/m)	Capie (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits	Margin (dB)	Remark
1	4874.000	33.25	9.49	35.51	33.65	40.88	54.00	13.12	Average
2	4874.000	33.25	9.49	35.51	45.51	52.74	74.00	21.26	Peak
	Bewarks:	1. Emigaio	n Level	= knzenn	Pactor 4	Cable Lo	nn + Rea	dina	

-Amp Factor

2. The emission levels that are 20dB below the official



Site no. : 3m Chamber Pata no. : 43
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. : MORIZONTAL
Limit : FCC PART ISC PEAK
Env. / Ins. : 23.9°C/52.8%
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IREESO2.11g 2412MHz Tx
A301



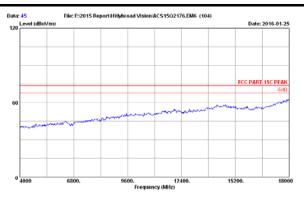
Site no. : 3m Chamber Data no. : 44
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. : MORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9°C/52.8%
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IREESO2.11g 2412MHz TX
A301

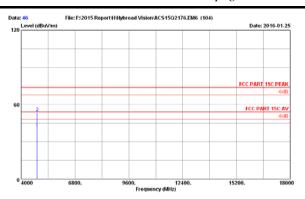
No.	Freq.		Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Hargin (dB)	Remark
1 2	4824.000 4824.000			9.46 9.46	35.53 35.53	34.56 46.02	41.64 53.10	54.00 74.00	12.36 20.90	Average Peak
	Remarks:	1.	Emission	Level	- Antenna	Factor +	Cable Lo	ss + Rea	ding	

-Amp Factor

2. The emission levels that are 20dB below the official limit are not reported.

page

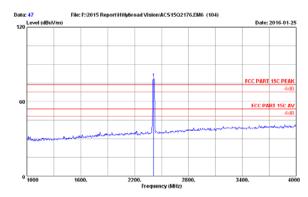




Site no. : 3m Chamber Data n
Dis. / Ant : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9°c/52.80
Equipmer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Mz
Test Node : IEEESO2.11g 2412MHz TX
A201

Ant. Cable AHP Emission Level Limits Hargin Remark (dB/m) (dB) (dB) (dBW) (dBW/m) (dBW

Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20d8 below the official
limit are not reported.

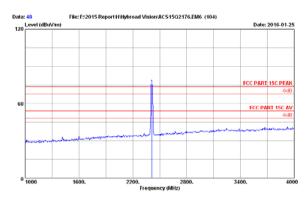


Site no. : 3m Chamber Pata n
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART ISC PEAK
Env. / Ins. : 23.9*C/S2.8%
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Node : IEEE802.11g 2412MHz TX
A301

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2412.000	28.29	7.35	36.62	79.57	78.59	74.00	-4.59	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor

The emission levels that are 20dD below the official limit are not reported.



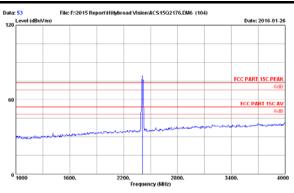
Site no. : 3m Chamber Pata I
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART ISC PEAK
Env. / Ins. : 23.9°C/S2.8%
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Node : IEEES02.11g 2412MHz TX
A301

	_	Ant.	Cable	AMP	Reading Level Limits				
No.	Freq.	(dB/m)	(dB)	factor (dB)	Reading (dBuV)	(dBuV/m)		Margin (dB)	Remark
1	2412.000	28.29	7.35	36.62	76.27	75.29	74.00	-1.29	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



page



No. Freq. Factor Loss factor Pending Level Limits Hargin Remark
(MHz) (dB/m) (dB) (dB) (dB) (dBWV) (dBwV/m) (dBwV/m) (dBwV/m)

1 2412.000 28.29 7.35 36.62 76.22 75.24 74.00 -1.24 Peak

Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.

120 Level (dBuV/m) Date: 2016-01-26 FCC PART 15C PEAK 2200. Frequency (MHz)

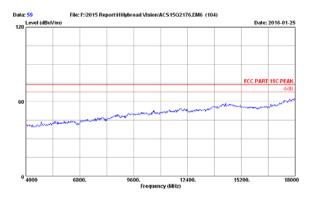
File: F: 2015 Report HHybroad Vision ACS1502176.EM6 (104)

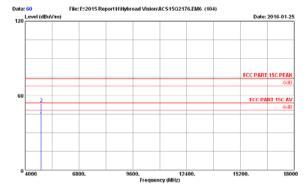
Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2018 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEEK
Env. / Ins. : 23.9°C52.8b
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Node : IEEES02.11nHT20 2412HHz Tx
A301

Data: 54

| Ant. Cable AMP | Emission | No. Freq. Factor Loss factor | Reading Level Limits | Nargin Remark | (MHz) (dB/m) (dB) (dB) (dB) (dBuV) (dBuV/m) (dBuV/m) (dB) | 1 2422.000 | 28.29 | 7.35 | 36.62 | 78.24 | 77.26 | 74.00 | -3.26 | Peak

Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.





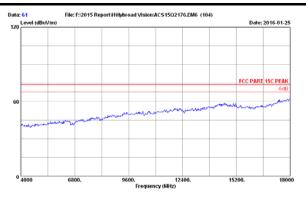
Site no. : 3m Chamber Data :
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9°c/52.89
Equipmer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEEBOZ.11nHTZO 2412RHz Tx
A301

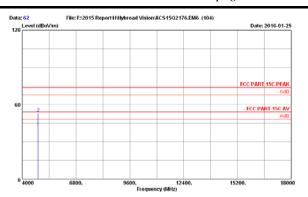
Ant. Cable AHP Factor Loss factor Reading (dB/m) (dB) (dB) (dBuV) Emission Level Limits Margin Remark (dBuV/m) (dBuV/m) (dB)

Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20d8 below the official
limit are not reported.



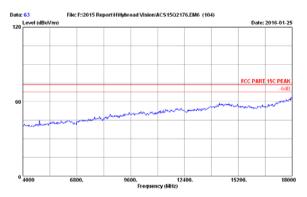
page

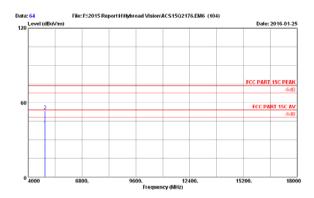




No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	33.15	9.46	35.53	34.29	41.37	54.00	12.63	Average
2	4824.000	33.15	9.46	35.53	46.01	53.09	74.00	20.91	Peak

Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20d8 below the official
limit are not reported.

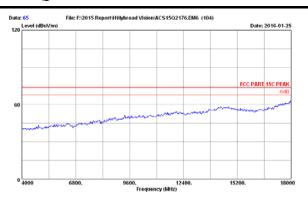


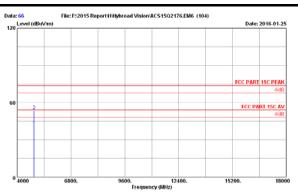


No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
1	4874.000	33.25	9.49	35.51	33.70	40.93	54.00	13.07	Average
2	4874.000	33.25	9.49	35.51	46.25	53.48	74.00	20.52	Peak

Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20d8 below the official
limit are not reported.

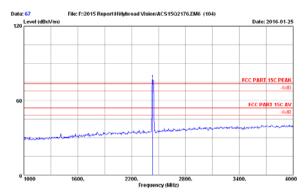
page





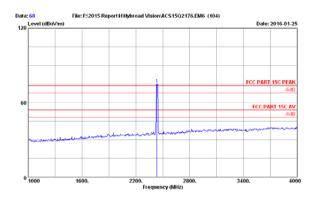
		Ant.	Cable	AMP		Emission	1		
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	4874.000	33.25	9.49	35.51	33.80	41.03	54.00	12.97	Average
2	4874.000	33.25	9.49	35.51	46.23	53.46	74.00	20.54	Peak
	Bewarks:	1. Emigato	n Level	- Antenn	a Factor +	Cable Lo	nn + Rea	dina	

1. Emission seven
-Amp Factor
2. The emission levels that are 20d8 below the official limit are not reported.



Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor

The emission levels that are 20dB below the official limit are not reported.



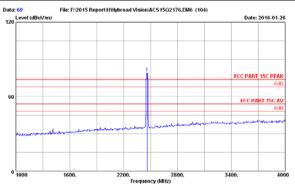
Site no. : 3m Chamber Data I
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART ISC PEAK
Env. / Ins. : 23.9°C/S2.8%
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEES02.11nHT20 2437NHz Tx
A301

Ant. Cable AMP Emission | Factor | Ends | Limits | Margin | Remark | (dB/m) | (dB) | (dB) | (dBuV) | (dBuV/m) | (dBuV/m) | (dB) | (dB)

Pemarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



page

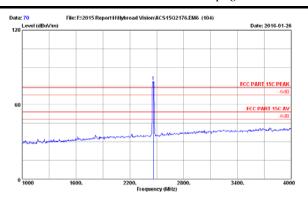


Site no. : 3m Chamber Data n
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9°C52.0%
Engineer : Leo-Li
EUT : DIFECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11mHT20 2462HHz Tx
A301

No. Freq. Factor Loss factor Pending Level Limits Hargin Remark
(MHz) (dB/m) (dB) (dB) (dB) (dBWV) (dBwV/m) (dBwV/m) (dBwV/m)

1 2462.000 28.35 7.43 36.60 80.04 79.22 74.00 -5.22 Peak

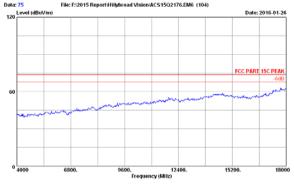
Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.

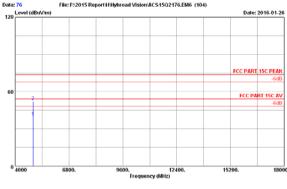


Site no. : 3m Chamber Data n
Dis. / Ant. : 3m 2018 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEEK
Env. / Ins. : 23.9°C52.8b
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Node : IEEES02.11nHT20 2462HHz Tx
A301

| Ant. Cable AMP | Emission | No. Freq. Factor Loss factor | Reading Level Limits | Nargin Remark | (MHz) (dB/m) (dB) (dB) (dB) (dBuV) (dBuV/m) (dBuV/m) (dB) | 1 2462.000 | 28.35 | 7.43 | 36.60 | 79.53 | 78.71 | 74.00 | -4.71 | Peak |

Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.





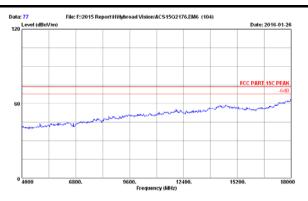
Site no. : 3m Chamber Data :
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9°c/52.89
Equipmer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEEBOZ.11nHTZO 246ZHRZ TX
AD01

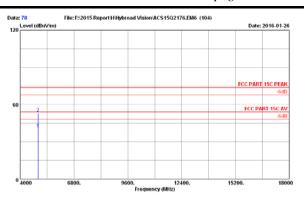
Ant. Cable AHP
Factor Loss factor Reading
(dB/m) (dB) (dB) (dB) Emission Level Limits Margin Remark (dBuV/m) (dBuV/m) (dB)

Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20d8 below the official
limit are not reported.



page





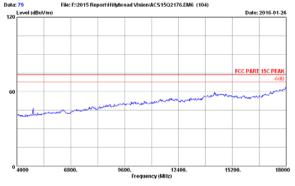
Site no. : 3m Chamber Data n
Dis. / Ant : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9°c/52.80
Equipmer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Node : IEEESGC2.1inNTZO 2462NHz Tx
A201

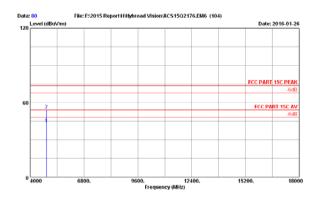
Ant. Cable AHP
Factor Loss (aB) (dB) (dB) (dB) (dB) (dB) (dBUV)

33.35 9.51 35.48 32.97
33.35 9.51 35.48 45.88 Emission
Level Limits Hargin Remark
(dBuV/m) (dBuV/m) (dB)

40.35 54.00 13.65 Average
53.26 74.00 20.74 Peak

Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20d8 below the official
limit are not reported.



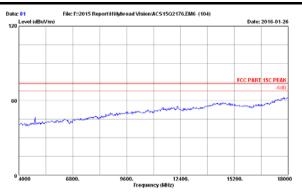


Site no. : 3m Chamber Data :
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9°c/52.89
Equipmer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEEBOZ.11nHT40 2422HHz Tx
A301

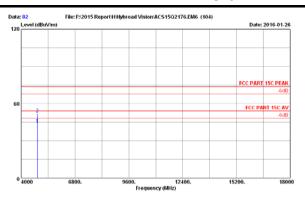
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4844.000	33.19	9.47	35.52	36.05	43.19	54.00	10.81	Average
2	4844.000	33.19	9.47	35.52	46.89	54.03	74.00	19.97	Peak
	Demarks:	1. Emigato	n Level	= kntenne	Factor 4	Cable L	ann + Rea	4 i nor	

-Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.

page



Site no. : 3m Chamber Data :
Dis. / Ant. : 3m 2018 3115-4877 Ant. pol. :
Limit : FCC PART 1SC PEAK
Env. / Ins. : 23.9*C52.8*
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Node : IEEE802.11mHT40 2422NHz Tx
A301

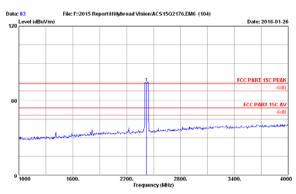


Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Eny. / Ins. : 23.9°C52.85
Engineer : Leo-Li
EUT : DIPECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Node : IEEES02.11nHT40 2422HHz Tx
A301

Ant. Cable AHP
Factor Loss factor (dB/m) (dB) (dB) (dB) (dBuv)

33.19 9.47 35.52 36.32
33.19 9.47 35.52 44.63 Emission Level Limits Margin Remark (dBuV/m) (dBuV/m) (dB)

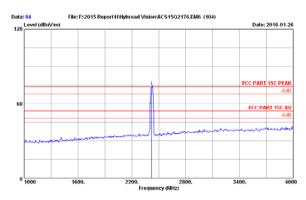
Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20d8 below the official
limit are not reported.



Ant. Cable AHP Emission
Factor Loss factor Reading Level Limits Hargin Remark
(dB/m) (dB) (dB) (dBW) (dBWV/m) (dBwV/m) (dBwV/m) (dBwV/m)
26.31 7.35 36.61 75.13 74.18 74.00 -0.18 Peak Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading

-Amp Factor

The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data :
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9°c/52.89
Equipmer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEEBOZ.11nHT40 2422HHz Tx
A301

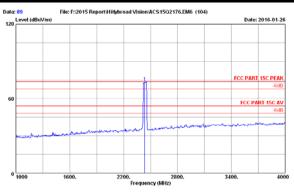
Ant. Cable AMP Emission
Factor Loss factor Reading Level Limits Margin Remark
(dB/m) (dB) (dB) (dBuV) (dBuV/m) (dBuV/m) (dB)

26.31 7.35 36.61 74.64 73.69 74.00 0.31 Peak

Pemarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



page

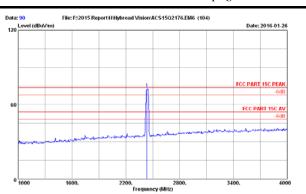


Site no. : 3m Chamber Data n
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9°C52.6%
Engineer : Leo-Li
EUT : DIFECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Hode : IEEE802.11mHT40 2437HHz Tx
A301

No. Freq. Factor Loss factor Pending Level Limits Hargin Remark
(MHz) (dB/m) (dB) (dB) (dB) (dBWV) (dBwV/m) (dBwV/m) (dBwV/m)

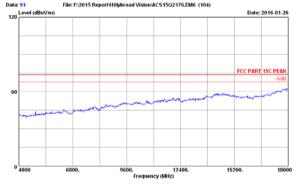
1 2437.000 28.32 7.39 36.61 74.19 73.29 74.00 0.71 Peak

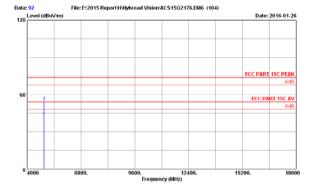
Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



Site no. : 3m Chamber Data n
Dis. / Ant : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9°c/52.80
Equipmer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Node : IEEESG2.1inNT40 2437KHz Tx
A201

Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



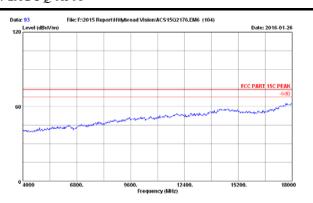


Site no. : 38 Chamber Data 1
Dis. / Ant. : 38 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9°c/52.89
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEEBOZ.11nHT40 2437MHz Tx
A301

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
1	4874.000	33.25	9.49	35.51	34.57	41.80	54.00	12.20	Average
2	4874.000	33.25	9.49	35.51	46.86	54.09	74.00	19.91	Peak

Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20d8 below the official
limit are not reported.

page



Site no. : 3m Chamber Pata n

Dis. / Ant. : 3m 2018 3115-4877 Ant. pol. :

Limit : FCC PART 15C PEAK

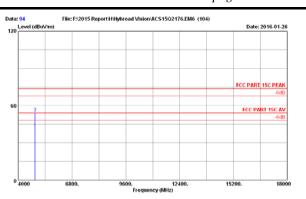
Env. / Ins. : 23.9°C/52.83

Engineer : Leo-Li

EUT : DIRECT VINA BOX

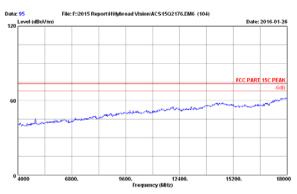
Power rating : DC 12V From Adapter Input AC 120V/60Hz

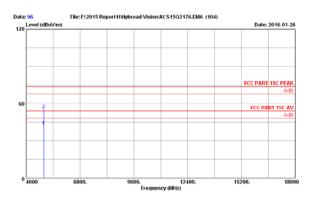
Test Node : IEEE802.11nHT40 2437MHz Tx



No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits	Margin (dB)	Remark
1	4874.000	33.25	9.49	35.51	33.67	40.90	54.00	13.10	Average
2	4874.000	33.25	9.49	35.51	47.04	54.27	74.00	19.73	Peak
	Downwise . 1	Married and a	o Larra I		. Beersey A	debte to	+ P	off the same	

Emission Level Antenna Factor + Cable Loss + Reading -Amp Factor
 The emission levels that are 20d8 below the official limit are not reported.





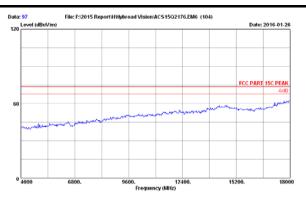
No.	Freq.		Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
1 2	4904.000 4904.000			9.50 9.50	35.50 35.50	34.57 47.89	41.88 55.20	54.00 74.00	12.12 18.80	Average Peak
	Remarks:	1.	Emission	Level	Antenna	Factor +	Cable Los	ss + Read	fing	

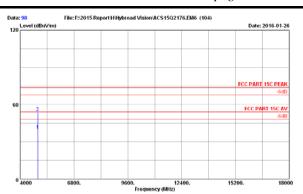
-Amp Factor

2. The emission levels that are 20d8 below the official limit are not reported.



page



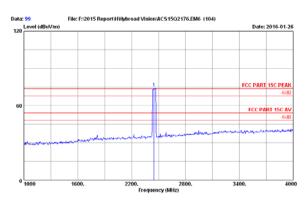


No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits	Margin (dB)	Remark
1	4904.000	33.31	9.50	35.50	32.26	39.57	54.00	14.43	Average
2	4904.000	33.31	9.50	35.50	46.63	53.94	74.00	20.06	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading

-Amp Factor

The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data n
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9°c/52.80
Engineer : Leo-Li
EUT : DIFECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Node : IEEE802.11mHT40 2452MHz Tx
A301 Data no. : 99 Ant. pol. : VERTICAL

1 2452.000

File: F:\2015 Report\H\Hybroad Vision\ACS15Q2176.EM6 (104) 120 Level (dBuV/m) Date: 2016-01-26 FCC PART 15C PEAK

Ant. Cable AMP Emission
Factor Loss factor Reading Level Limits Margin Remark
(dB/m) (dB) (dB) (dBW) (dBWV/m) (dBWV/m) (dBWV/m) (dBWV/m)

26.34 7.43 36.60 74.36 73.53 74.00 0.47 Peak 1 2452.000

Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



5. CONDUCTED SPURIOUS EMISSIONS

5.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	N9030A	MY51380221	Oct.17,15	1Year
2.	Attenuator	Agilent	8491B	MY39262165	Apr.28,15	1 Year
3.	RF Cable	Marvelous Microwave Inc	SFL402105FLEX	NO.1	Oct.17,15	1 Year

5.2.Limit

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.

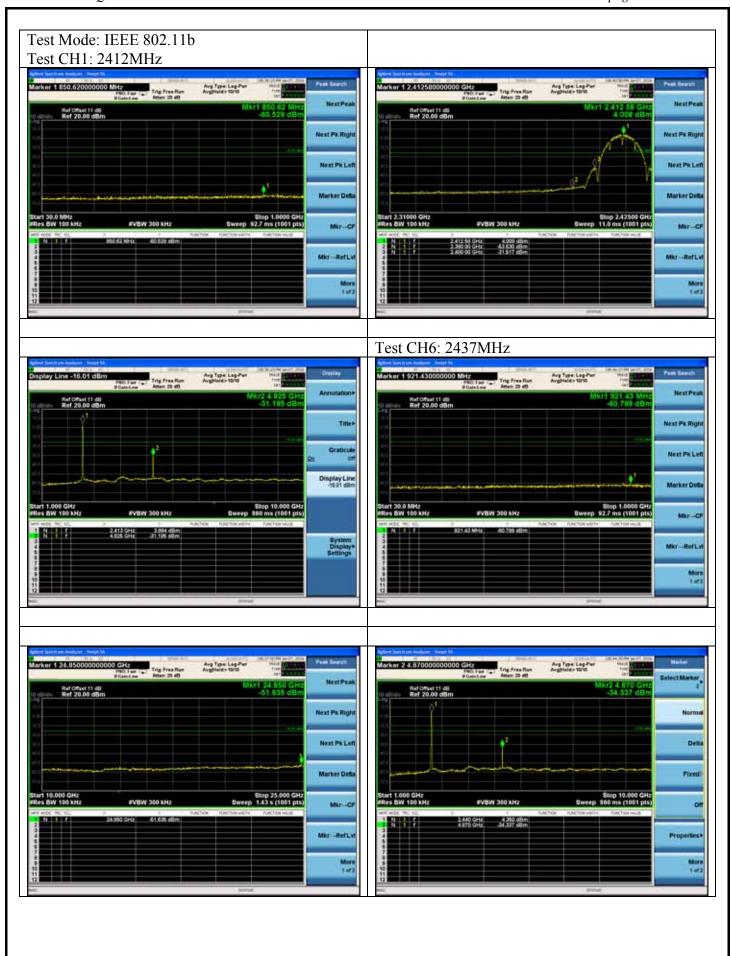
5.3.Test Procedure

The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz and measure all the emissions with peak detector.

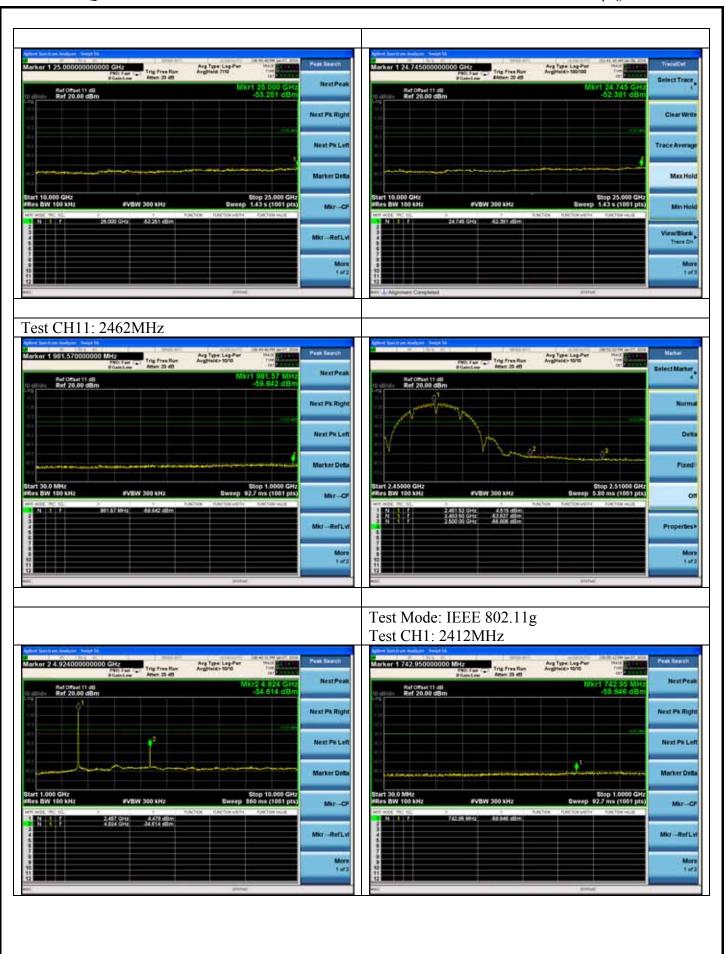
5.4. Test result

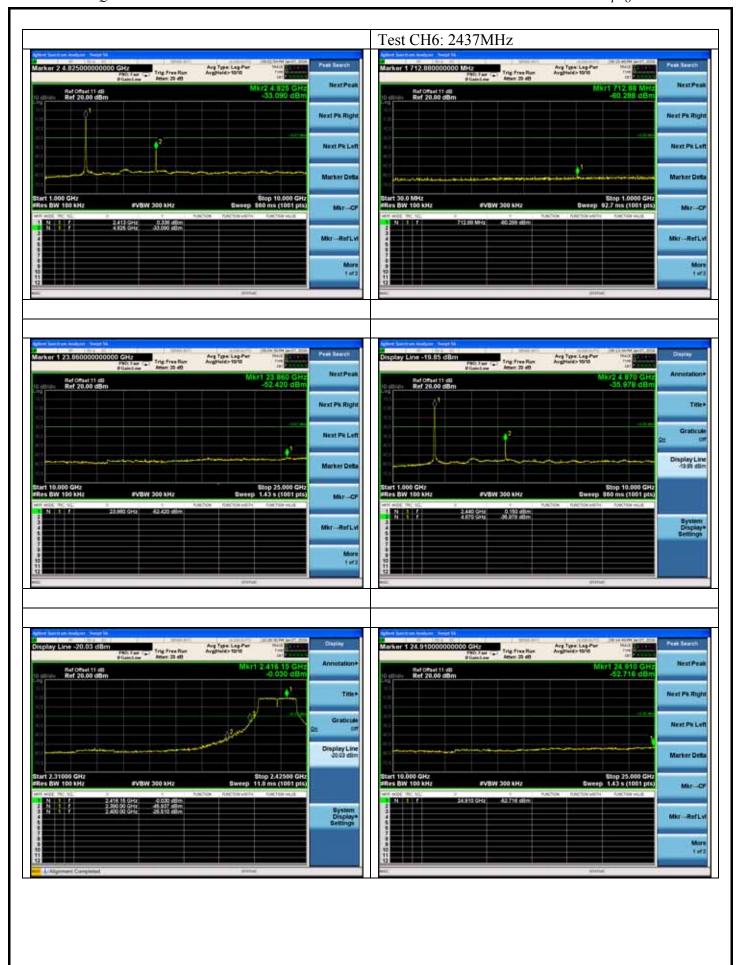
PASS (The testing data was attached in the next pages.)

page 5-2



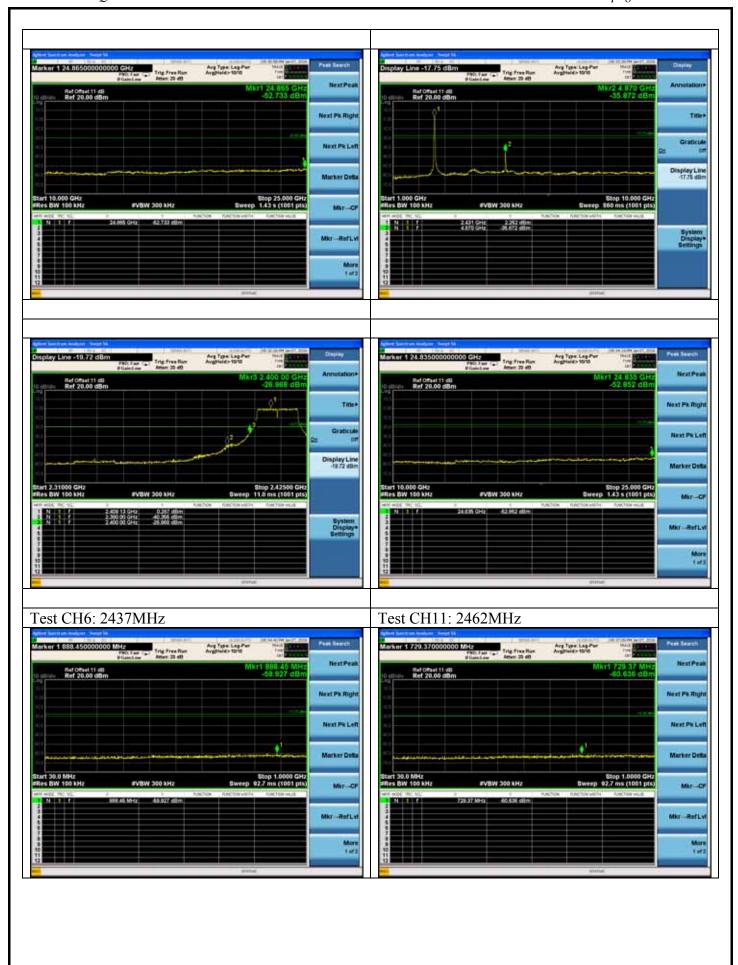
page 5-.

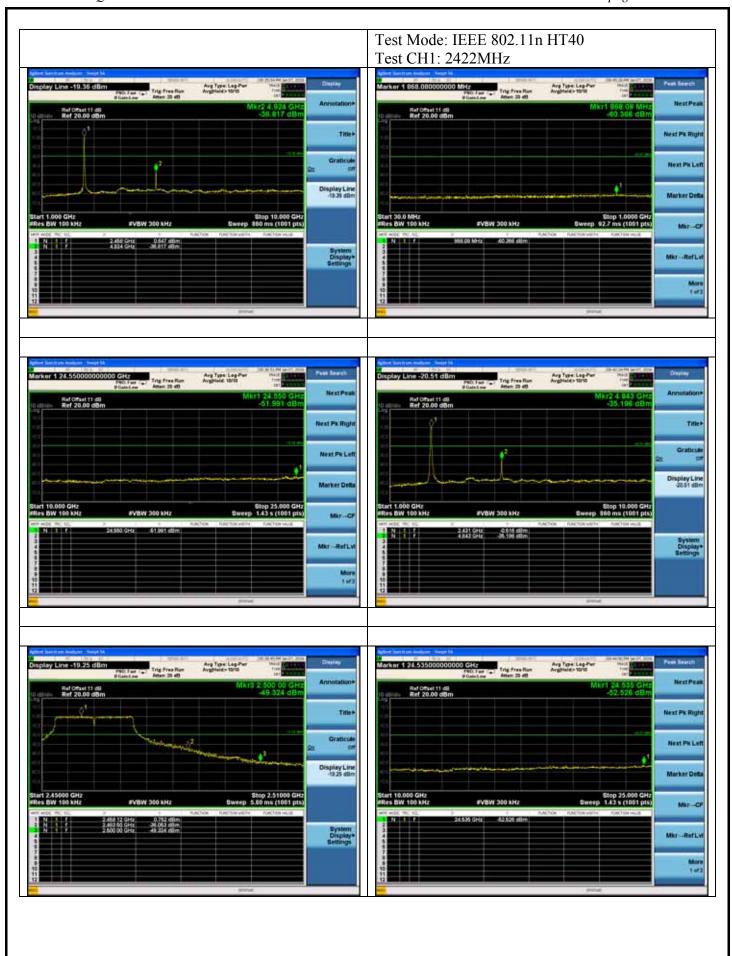




page













6. BAND EDGE COMPLIANCE TEST

6.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	Apr.28,15	1 Year
2.	Amp	HP	8449B	3008A02495	Apr.28,15	1 Year
3.	Horn Antenna	ETC	MCTD 1209	DRH15F03007	Feb.03,15	1 Year
4.	HF Cable	Hubersuhner	Sucoflex104	274094/4	Apr.28,15	1 Year

6.2.Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209 all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

6.3. Test Produce

- 1. The EUT is placed on a turntable, which is 1.5m above the ground plane and worked at highest radiated power.
- 2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
- 3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
- 4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
- (a) PEAK: RBW=1MHz; VBW=3MHz; Sweep=AUTO (b) AVERAGE: RBW=1MHz; VBW=10Hz; Sweep=AUTO

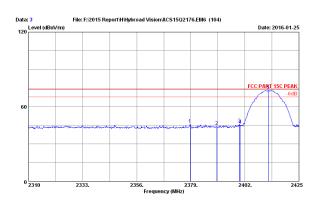
6.4. Test Results

Pass (The testing data was attached in the next pages.)



page

Date: 2016-01-25



Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : PCC PART 15C PEAK
Env. / Ins. : 23.9°C/52.84
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2412MHz Tx
A301 Data no. : 3 Ant. pol. : VERTICAL

		Ant.	canre	Anr		rmission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2378.655	28.25	7.28	36.63	46.78	45.68	74.00	28.32	Peak
2	2390.000	28.27	7.28	36.62	45.09	44.02	74.00	29.98	Peak
3	2399.700	28.28	7.32	36.62	47.14	46.12	74.00	27.88	Peak
4	2400.000	28.28	7.32	36.62	46.09	45.07	74.00	28.93	Peak
5	2412.005	28.29	7.35	36.62	74.29	73.31	74.00	0.69	Peak

Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading -Amp Factor 2. The emission levels that are 20dB below the official limit are not reported.

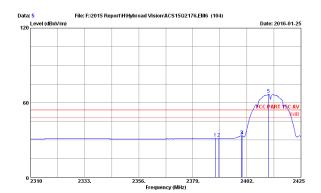


		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2387.280	28.26	7.28	36.63	32.70	31.61	54.00	22.39	Average
2	2390.000	28.27	7.28	36.62	32.63	31.56	54.00	22.44	Average
3	2400.000	28.28	7.32	36.62	35.34	34.32	54.00	19.68	Average
4	2411.200	28.29	7.35	36.62	70.31	69.33	54.00	-15.33	Average

Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.

File: F:\2015 Report\H\Hybroad Vision\AC\$1502176.FM6 (104)

Data: 6



Site no. : 3m Chamber Data n
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : PCC PART 15c AV
Env. / Ins. : 23.9°C/52.8°s
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2412MHz Tx
A301 Data no. : 5 Ant. pol. : HORIZONTAL

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2388.545	28.27	7.28	36.62	32.65	31.58	54.00	22.42	Average
2	2390.000	28.27	7.28	36.62	32.61	31.54	54.00	22.46	Average
3	2399.700	28.28	7.32	36.62	34.37	33.35	54.00	20.65	Average
4	2400.000	28.28	7.32	36.62	34.31	33.29	54.00	20.71	Average
5	2411.200	28.29	7.35	36.62	67.78	66.80	54.00	-12.80	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.

FCC PART 15C PEAK 2356. Frequency (MHz) 0 2310 2333. 2379. 2402

Site no. : 3m Chamber Data r

Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FC PART LSC PERK

Env. / Ins. : 23.9*C/52.8*

Engineer : Leo-Li

EUT : DIRECT VINA BOX

Power rating : DC 12V From Adapter Input AC 120V/60Hz

Test Mode : IEEEB02.11b 2412MHz Tx

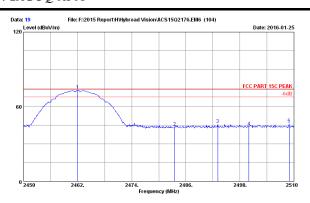
A301 Data no. : 6 Ant. pol. : HORIZONTAL

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2326.675	28.19	7.16	36.65	46.93	45.63	74.00	28.37	Peak
2	2390.000	28.27	7.28	36.62	45.68	44.61	74.00	29.39	Peak
3	2399.125	28.28	7.32	36.62	45.80	44.78	74.00	29.22	Peak
4	2400.000	28.28	7.32	36.62	45.49	44.47	74.00	29.53	Peak
5	2412.120	28.29	7.35	36.62	71.70	70.72	74.00	3.28	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



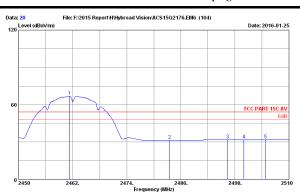
page



Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : PCC PART 15C PEAK
Env. / Ins. : 23.9°C/52.84
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2462MHz Tx
A301

		ant.	canre	ARP		rmission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.000	28.35	7.43	36.60	74.07	73.25	74.00	0.75	Peak
2	2483.500	28.38	7.51	36.59	44.27	43.57	74.00	30.43	Peak
3	2493.080	28.39	7.51	36.58	46.64	45.96	74.00	28.04	Peak
4	2500.000	28.40	7.51	36.58	44.50	43.83	74.00	30.17	Peak
5	2508.920	28.43	7.55	36.58	46.64	46.04	74.00	27.96	Peak

Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading -Amp Factor 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data r

Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15c AV

Env. / Ins. : 23.9*C/52.8*

Engineer : Leo-Li

EUT : DIRECT VINA BOX

Power rating : DC 12V From Adapter Input AC 120V/60Hz

Test Mode : IEEEB02.11b 2462MHz Tx

A301

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2461.280	28.35	7.43	36.60	67.78	66.96	54.00	-12.96	Average
2	2483.500	28.38	7.51	36.59	32.17	31.47	54.00	22.53	Average
3	2496.380	28.40	7.51	36.58	32.45	31.78	54.00	22.22	Average
4	2500.000	28.40	7.51	36.58	32.42	31.75	54.00	22.25	Average
5	2504.780	28.42	7.55	36.58	32.48	31.87	54.00	22.13	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.

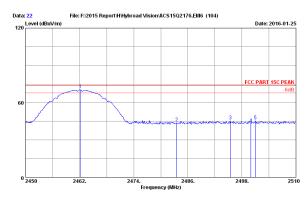


Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C AV
Env. / Ins. : 23.9*c/52.8%
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Test Mode : IEEEBOQ.11b 2452MHz Tx
A301
A301 Data no. : 21 Ant. pol. : HORIZONTAL

Ant. Cable AMP Factor Loss factor (dB/m) (dB) (dB) Emission Level Limits Margin Remark (dBuV/m) (dBuV/m) (dB)

54.00 -12.40 Average 54.00 22.54 Average 54.00 22.22 Average 54.00 22.15 Average 28.35 7.43 28.38 7.51 28.40 7.51 28.42 7.55 67.22 32.16 32.45 32.46 2461.280

Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



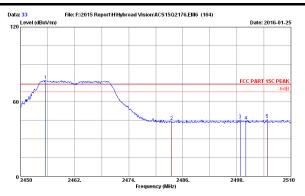
Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FOC PART 15C PEAK
Env. / Ins. : 23.9*C/52.84
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11b 2462MHz TX
A301 Data no. : 22 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.120	28.35	7.43	36.60	71.27	70.45	74.00	3.55	Peak
2	2483.500	28.38	7.51	36.59	44.62	43.92	74.00	30.08	Peak
3	2495.420	28.39	7.51	36.58	45.99	45.31	74.00	28.69	Peak
4	2500.000	28.40	7.51	36.58	43.83	43.16	74.00	30.84	Peak
5	2501.000	28.40	7.55	36.58	45.92	45.29	74.00	28.71	Peak

Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



page



Site no. : 3m Chamber Data r
Dis. / Art. : 3m 2015 3115-4877 Art. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9*C/52.8%
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2462MHz TX
A301

Emission
Level Limits Margin Remark
(dBuV/m) (dBuV/m) (dB Ant. Cable AMP Factor Loss factor (dB/m) (dB) (dB) -2.92 Peak 29.88 Peak 28.45 Peak 29.40 Peak 28.33 Peak 7.43 7.51 7.51 7.51 7.55 36.60 36.59 36.58 36.58 36.58 77.74 44.82 46.22 45.27 46.28 74.00 74.00 74.00 74.00 74.00 2504.720

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.

Data: 34 File: F:\2015 Report\H\Hybroad Vision\ACS15Q2176.EM6 (104) 120 Level (dBuV/m) Date: 2016-01-25 2474. 2510 Frequency (MHz)

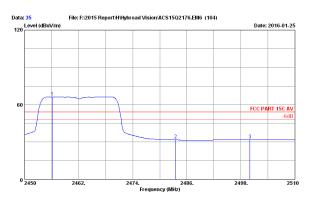
Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2018 3115-4877 Ant. pol. :
Limit : FCC PART 15C AV
Env. / Ins. : 23.9°C/82.8%
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2462MHz Tx
A301

		ant.	capie	Anr		Emission			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2466.320	28.36	7.47	36.59	69.58	68.82	54.00	-14.82	Average
2	2483.500	28.38	7.51	36.59	32.43	31.73	54.00	22.27	Average
3	2500.000	28.40	7.51	36.58	32.38	31.71	54.00	22.29	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading

-Amp Factor

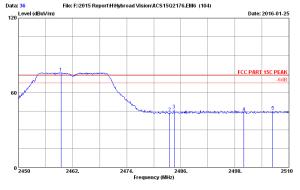
The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C AV
Env. / Ins. : 23.9*c/52.8%
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Test Mode : IEEEBOQ.11g 2452MHz Tx
A301 Data no. : 35 Ant. pol. : HORIZONTAL

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2456.180	28.35	7.43	36.60	66.99	66.17	54.00	-12.17	Average
2	2483.500	28.38	7.51	36.59	32.30	31.60	54.00	22.40	Average
3	2500.000	28.40	7.51	36.58	32.38	31.71	54.00	22.29	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading



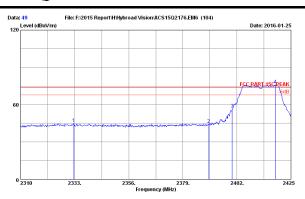
Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FOC PART 15C PEAK
Env. / Ins. : 23.9*C/52.8*
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2462MHz TX
A301 Data no. : 36 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2459.420	28.35	7.43	36.60	76.84	76.02	74.00	-2.02	Peak
2	2483.500	28.38	7.51	36.59	44.60	43.90	74.00	30.10	Peak
3	2484.500	28.38	7.51	36.59	46.82	46.12	74.00	27.88	Peak
4	2500.000	28.40	7.51	36.58	44.89	44.22	74.00	29.78	Peak
5	2506.400	28.42	7.55	36.58	45.79	45.18	74.00	28.82	Peak

Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



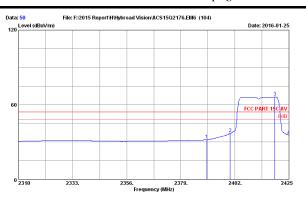
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Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 155C PEAK
Env. / Ins. : 23.9°C/52.8*
Enginer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2412MHz TX
A301

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2332.655	28.20	7.16	36.65	46.04	44.75	74.00	29.25	Peak
2	2390.000	28.27	7.28	36.62	45.03	43.96	74.00	30.04	Peak
3	2400.000	28.28	7.32	36.62	57.45	56.43	74.00	17.57	Peak
4	2418.330	28.30	7.35	36.61	76.82	75.86	74.00	-1.86	Peak

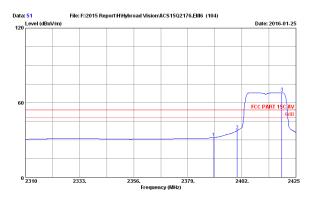
Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2018 3115-4877 Ant. pol. :
Limit : FCC PART 15C AV
Env. / Ins. : 23.9°C/82.8%
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2412MHz Tx
A301

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits	Margin (dB)	Remark
1	2390.000	28.27	7.28	36.62	32.90	31.83	54.00	22.17	Average
2	2400.000	28.28	7.32	36.62	37.87	36.85	54.00	17.15	Average
3	2419.020	28.30	7.35	36.61	67.04	66.08	54.00	-12.08	Average
4	2425.000	28.31	7.35	36.61	36.15	35.20	54.00	18.80	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.

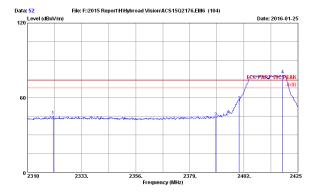


Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : PCC PART 15C AV
Env. / Ins. : 23.9°C/52.84
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2412MHz Tx
A301 Data no. : 51 Ant. pol. : VERTICAL

Ant. Cable AMP
Factor Loss factor Reading
(dB/m) (dB) (dB) (dBuV) Emission
Level Limits Margin Remark
(dBuV/m) (dBuV/m) (dB)

31.91 54.00 22.09 Average
37.55 54.00 16.45 Average
67.95 54.00 -33.95 Average 36.62 36.62 36.61 2390.000 2400.000 2419.020

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading



Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FOC PART 15C PEAK
Env. / Ins. : 23.9*C/32.84
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.11g 2412MHz TX
A301 Data no. : 52 Ant. pol. : VERTICAL

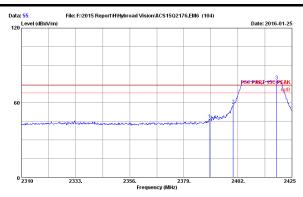
		Ant.	Cable	AMP		Emission	ı		
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2320.925	28.19	7.12	36.65	46.35	45.01	74.00	28.99	Peak
2	2390.000	28.27	7.28	36.62	44.95	43.88	74.00	30.12	Peak
3	2400.000	28.28	7.32	36.62	57.71	56.69	74.00	17.31	Peak
4	2418.445	28.30	7.35	36.61	79.20	78.24	74.00	-4.24	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading

-Amp Factor

2. The emission levels that are 20dB below the official limit are not reported.





		ant.	capie	ARP		Emission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.27	7.28	36.62	47.57	46.50	74.00	27.50	Peak
2	2400.000	28.28	7.32	36.62	59.26	58.24	74.00	15.76	Peak
3	2418.445	28.30	7.35	36.61	78.58	77.62	74.00	-3.62	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor

2. The emission levels that are 20dB below the official limit are not reported.

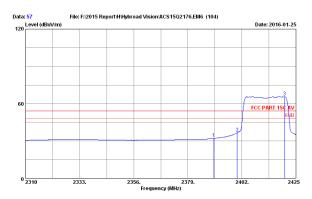


		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	28.27	7.28	36.62	33.54	32.47	54.00	21.53	Average
2	2400.000	28.28	7.32	36.62	39.40	38.38	54.00	15.62	Average
3	2415.225	28.30	7.35	36.61	69.68	68.72	54.00	-14.72	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor

- The Pactor

The emission levels that are 20dB below the official limit are not reported.

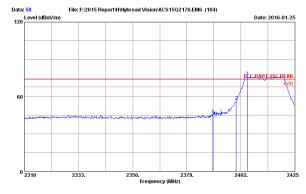


Data no. : 57 Ant. pol. : HORIZONTAL

Ant. Cable AMP
Factor Loss factor Reading
(dB/m) (dB) (dB) (dBuV) Emission
Level Limits Margin Remark
(dBuV/m) (dBuV/m) (dB)

32.03 \$4.00 21.97 Average
36.60 \$4.00 21.74 Average
65.60 \$4.00 -11.60 Average 36.62 36.62 36.61 33.10 37.62 66.56 2390.000 2400.000 2420.170

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading



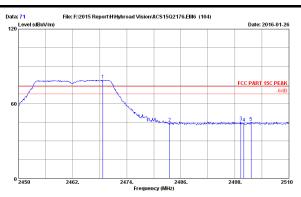
Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FOC PART 15C PEAK
Env. / Ins. : 23.9*C/32.84
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.1inHT20 2412MHz Tx
A301 Data no. : 58 Ant. pol. : HORIZONTAL

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emissior Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
2	2390.000 2400.000 2404.645	28.27 28.28 28.29	7.28 7.32 7.32	36.62 36.62 36.62	46.50 57.34 76.82	45.43 56.32 75.81	74.00 74.00	28.57 17.68	Peak Peak Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading



page



		ant.	capie	AMP		Emission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuW/m)	Margin (dB)	Remark
	(11110)	(02) 20)	(02)	(42)	(4241)	(4241)10)	(abar, m)	(00)	
1	2468.720	28.36	7.47	36.59	79.83	79.07	74.00	-5.07	Peak
2	2483.500	28.38	7.51	36.59	45.20	44.50	74.00	29.50	Peak
3	2499.320	28.40	7.51	36.58	46.16	45.49	74.00	28.51	Peak
4	2500.000	28.40	7.51	36.58	45.05	44.38	74.00	29.62	Peak
5	2501.600	28.41	7.55	36.58	45.66	45.04	74.00	28.96	Peak

Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.

Data: 72 File: F:\2015 Report\H\Hybroad Vision\ACS15Q2176.EM6 (104) Level (dBuV/m) Date: 2016-01-26 2474. 2510 Frequency (MHz)

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2470.220	28.36	7.47	36.59	70.25	69.49	54.00	-15.49	Average
2	2483.500	28.38	7.51	36.59	32.72	32.02	54.00	21.98	Average
3	2500.000	28.40	7.51	36.58	32.38	31.71	54.00	22.29	Average

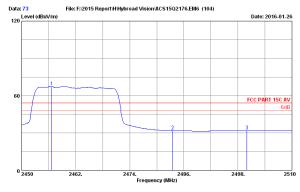
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading

File: F:\2015 Report\H\Hybroad Vision\ACS15Q2176.EM6 (104)

Data: 74

-Amp Factor

2. The emission levels that are 20dB below the official limit are not reported.



Data no. : 73 Ant. pol. : HORIZONTAL

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2456.720	28.35	7.43	36.60	68.04	67.22	54.00	-13.22	Average
2	2483.500	28.38	7.51	36.59	32.62	31.92	54.00	22.08	Average
3	2500.000	28.40	7.51	36.58	32.36	31.69	54.00	22.31	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading

120 Level (dBuV/m) Date: 2016-01-26 FCC PART 15C PEAK 2474. Frequency (MHz)

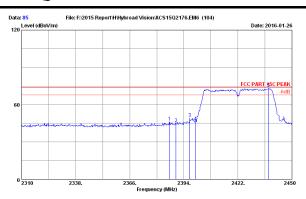
Data no. : 74 Ant. pol. : HORIZONTAL

		Ant.	Cable	AMP		Emission	ı		
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2459.000	28.35	7.43	36.60	80.10	79.28	74.00	-5.28	Peak
2	2483.500	28.38	7.51	36.59	45.16	44.46	74.00	29.54	Peak
3	2494.580	28.39	7.51	36.58	46.51	45.83	74.00	28.17	Peak
4	2500.000	28.40	7.51	36.58	44.86	44.19	74.00	29.81	Peak
5	2506.820	28.42	7.55	36.58	46.20	45.59	74.00	28.41	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



page



Data no. : 85 Ant. pol. : HORIZONTAL

		Anc.	Compte	AH		EULESTOI			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2386.580	28.26	7.28	36.63	47.21	46.12	74.00	27.88	Peak
2	2390.000	28.27	7.28	36.62	45.96	44.89	74.00	29.11	Peak
3	2397.080	28.28	7.32	36.62	50.18	49.16	74.00	24.84	Peak
4	2400.000	28.28	7.32	36.62	47.30	46.28	74.00	27.72	Peak
5	2437.820	28.33	7.39	36.60	74.16	73.28	74.00	0.72	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.

Data: 86 File: F:\2015 Report\H\Hybroad Vision\ACS15Q2176.EM6 (104) Level (dBuV/m) Date: 2016-01-26 0 2310 2366. 2394. 2450 Frequency (MHz)

		Ant.	Cable	AMP		Emission	L		
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.27	7.28	36.62	33.88	32.81	54.00	21.19	Peak
2	2398.480	28.28	7.32	36.62	38.73	37.71	54.00	16.29	Peak
3	2400.000	28.28	7.32	36.62	36.38	35.36	54.00	18.64	Peak
4	2405.620	28.29	7.32	36.62	61.72	60.71	54.00	-6.71	Peak

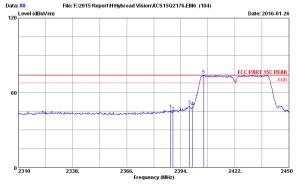
Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.

0 2310		2338.	2366.	2394.	242	2	24
					2		<u>ν</u>
				2		1007741	-6dE
60					4	FCC PART	ISC AV
20	(aba Viii)					Dates Los	
120 Level	(dBuV/m)					Date: 201	6-01-

Site no. : 3m Chamber Data n
Dis./ Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : PCC PART 1SC AV
Eny. / Ins. : 23.9*C/52.0*
Engineer : Leo-L1
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEEB02.1inHT40 2422MHz Tx
A301 Data no. : 87 Ant. pol. : VERTICAL

		Ant.	Cable	AMP		Emission				
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1	2389.940	28.27	7.28	36.62	33.52	32.45	54.00	21.55	Average	
2	2398.620	28.28	7.32	36.62	38.87	37.85	54.00	16.15	Average	
3	2400.000	28.28	7.32	36.62	36.73	35.71	54.00	18.29	Average	
4	2406.320	28.29	7.32	36.62	63.71	62.70	54.00	-8.70	Average	

Remarks: 1. Emission Level* Antenna Factor + Cable Loss + Reading
-lmp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



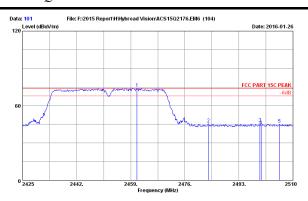
Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FOC PART 15C PEAK
Env. / Ins. : 23.9*C/32.84
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Power rating : DC 12V From Adapter Input AC 120V/60Hz
Test Mode : IEEE802.1inHT40 2422MHz Tx
A301 Data no. : 88 Ant. pol. : VERTICAL

		Ant.	Cable	AMP		Emission	ı		
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2388.820	28.27	7.28	36.62	47.32	46.25	74.00	27.75	Peak
2	2390.000	28.27	7.28	36.62	45.60	44.53	74.00	29.47	Peak
3	2398.480	28.28	7.32	36.62	50.52	49.50	74.00	24.50	Peak
4	2400.000	28.28	7.32	36.62	49.45	48.43	74.00	25.57	Peak
5	2405.900	28.29	7.32	36.62	75.15	74.14	74.00	-0.14	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.

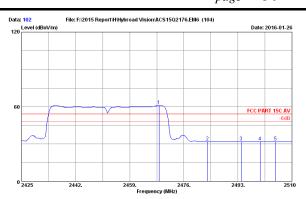


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		Ant.	camie	ARP		rmission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2460.955	28.35	7.43	36.60	74.85	74.03	74.00	-0.03	Peak
2	2483.500	28.38	7.51	36.59	46.25	45.55	74.00	28.45	Peak
3	2499.630	28.40	7.51	36.58	46.31	45.64	74.00	28.36	Peak
4	2500.000	28.40	7.51	36.58	44.57	43.90	74.00	30.10	Peak
5	2505.750	28.42	7.55	36.58	45.80	45.19	74.00	28.81	Peak

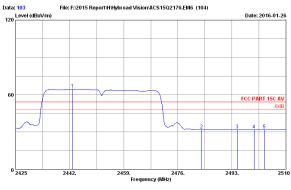
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
1	2468.180	28.36	7.47	36.59	61.66	60.90	54.00	-6.90	Average
2	2483.500	28.38	7.51	36.59	32.43	31.73	54.00	22.27	Average
3	2494.020	28.39	7.51	36.58	32.44	31.76	54.00	22.24	Average
4	2500.000	28.40	7.51	36.58	32.36	31.69	54.00	22.31	Average
5	2504.730	28.42	7.55	36.58	32.42	31.81	54.00	22.19	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limic are not reported.

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Data no. : 103 Ant. pol. : VERTICAL

No.	Freq.	Ant. Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level	Limits (dBuV/m)		Remark
					(GDGV)	(GDGV/III)	(GDGV/III)		
1	2442.850	28.33	7.39	36.60	65.24	64.36	54.00	-10.36	Average
2	2483.500	28.38	7.51	36.59	32.46	31.76	54.00	22.24	Average
3	2494.700	28.39	7.51	36.58	32.46	31.78	54.00	22.22	Average
4	2500.000	28.40	7.51	36.58	32.37	31.70	54.00	22.30	Average
5	2503.200	28.41	7.55	36.58	32.48	31.86	54.00	22.14	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.

Data: 104

120 Level (dBuV/m) Date: 2016-01-26 FCC PART 15C PEAK 2459. Frequency (MHz) 0 2425 2476.

Site no. : 3m Chamber Data r
Dis. / Ant. : 3m 2015 3115-4877 Ant. pol. :
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.9*c/52.84
Engineer : Leo-Li
EUT : DIRECT VINA BOX
Test Mode : IEEE802.1inHT40 2452MHz TX
A301 Data no. : 104 Ant. pol. : VERTICAL

No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2467.670	28.36	7.47	36.59	75.09	74.33	74.00	-0.33	Peak
2	2483.500	28.38	7.51	36.59	44.66	43.96	74.00	30.04	Peak
3	2483.905	28.38	7.51	36.59	47.05	46.35	74.00	27.65	Peak
4	2500.000	28.40	7.51	36.58	45.06	44.39	74.00	29.61	Peak
5	2500.905	28.40	7.55	36.58	46.25	45.62	74.00	28.38	Peak

Remarks: 1. Emission Level- Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.



7. 6dB Bandwidth Test

7.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	Apr.28,15	1 Year
2.	Spectrum	Agilent	N9030A	MY51380221	Oct.18,15	1Year
3.	Attenuator	Agilent	8491B	MY39262165	Apr.28,15	1 Year
4.	RF Cable	Marvelous Microwave Inc	SFL402105FLEX	NO.1	Oct.17.15	1 Year

7.2.Limit

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz

7.3. Test Procedure

The transmitter output was connected to a spectrum analyzer, The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 300kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

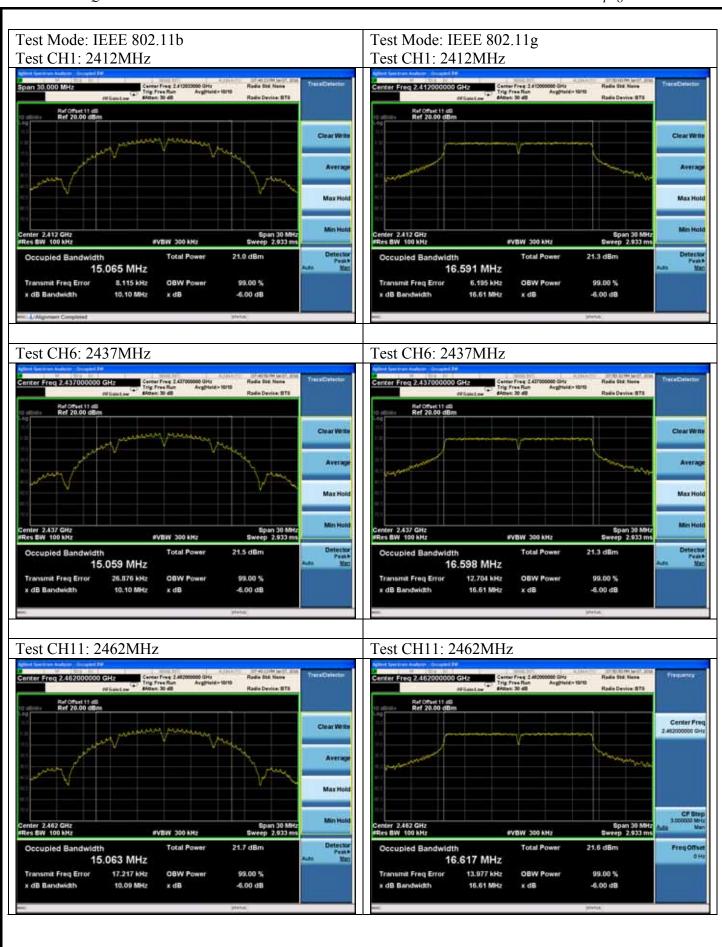
7.4. Test Results

EUT: DIRECT VINA BOX							
M/N: A301							
Test date: 2016-01-10	Pressure: 101.6±1.0 kpa	Humidity: 51.4±3.0%					
Tested by: Leo_Li	Test site: RF site	Temperature:22.4±0.6 °C					

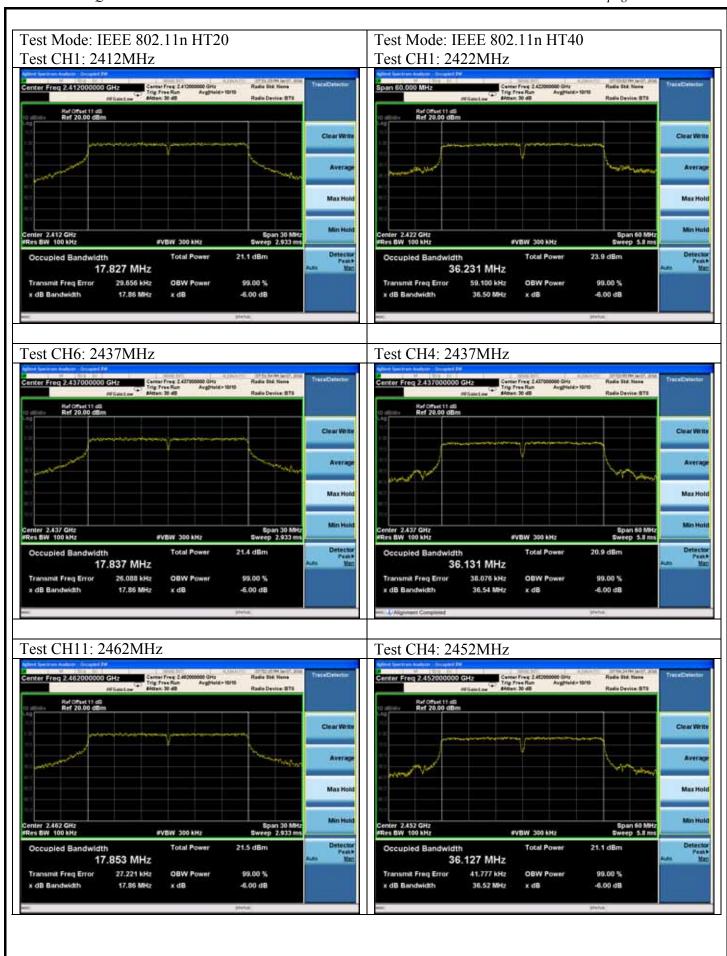
Test Mode	СН	6dB bandwidth (MHz)	Limit (KHz)
	CH1	10.10	>500
11b	CH6	10.10	>500
	CH11	10.09	>500
	CH1	16.61	>500
11g	CH6	16.61	>500
	CH11	16.61	>500
1.1	CH1	17.86	>500
11n	СН6	17.86	>500
HT20	CH11	17.86	>500
1.1	CH1	36.50	>500
11n	CH4	36.54	>500
HT40	CH7	36.52	>500

Conclusion: PASS

page 7-.



page 7-.





8. OUTPUT POWER TEST

8.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	Apr.28,15	1 Year
2.	Spectrum	Agilent	N9030A	MY51380221	Oct.18,15	1Year
3.	Power meter	Anritsu	ML2487A	6K00002472	Aug.21,15	1Year
4.	Power sensor	Anritsu	MA2491A	0033005	Aug.21,15	1Year
5.	Attenuator (20dB)	Agilent	8491B	MY39262165	Apr.28,15	1 Year
6.	RF Cable	Marvelous Microwave Inc	SFL402105FLEX	NO.1	Oct.17,15	1 Year

8.2.Limit (FCC Part 15C 15.247 b(3))

For systems using digital modulation in the 2400—2483.5MHz, The Peak output Power shall not exceed 1W(30dBm), As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level.

8.3.Test Procedure

- 1, Connected the EUT's antenna port to measure device by 26dB attenuator.
- 2, For IEEE 802.11b/g and IEEE802.11n HT20 modes, use a power meter which bandwidth is 20MHz, above the bandwidth of signals, to measure out output power in each mode.
- 3, For IEEE802.11n HT40 mode, since the signal bandwidth is nearly 40MHz, which is above 20MHz bandwidth of power sensor of ML2491A. use the test method descried in KDB558074 clause 9.2.2.
 - 1) Set the RBW=1MHz and VBW =3MHz
 - 2) Set the span at least 1.5 times the OBW
 - 3) Detector = RMS
 - 4) Sweep time = auto couple
 - 5) allow trace to fully stabilize
 - 6) use the spectrum amalyser's integrated band power measurement function with band limits set equal to the EBW band edges.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.



8.4.Test Results

EUT: DIRECT VINA BOX									
M/N: A301									
Test date: 2016-01-29	Pressure: 101.1±1.0 kpa		Humidity: 53.4±3.0%						
Tested by: Leo-Li	Test site: RF site		Temperature:22.2±0.6 ℃						
Test Mode	СН	output Power (dBm)	Limit (dBm)						
	CH1	8.87	30						
11b	СН6	8.52	30						
	CH11	8.24	30						
	CH1	14.79	30						
11g	СН6	15.18	30						
	CH11	15.39	30						
	CH1	14.64	30						
11n HT20	СН6	15.02	30						
	CH11	15.27	30						
	CH1	14.25	30						
11n HT40	CH4	14.62	30						
222.0	CH7	14.84	30						

Conclusion: PASS



9. POWER SPECTRAL DENSITY TEST

9.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	Apr.28,15	1 Year
2.	Spectrum	Agilent	N9030A	MY51380221	Oct.18,15	1Year
3.	Attenuator	Agilent	8491B	MY39262165	Apr.28,15	1 Year
4.	RF Cable	Marvelous Microwave Inc	SFL402105FLEX	NO.1	Oct.17,15	1 Year

9.2.Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

9.3.Test Procedure

- 1. Connected the EUT's antenna port to spectrum analyzer device by 20dB attenuator.
- 2. Set span to 1.5 times the DTS Bandwidth.
- 3. Set the RBW=3KHz, VBW=10KHz.
- 4. Detector=peak, Sweep time=Auto, Trace mode=max Hold
- 5. All the trace to fully stabilize.
- 6. Use the peak marker function to determine the maximum amplitude level with in the RBW.

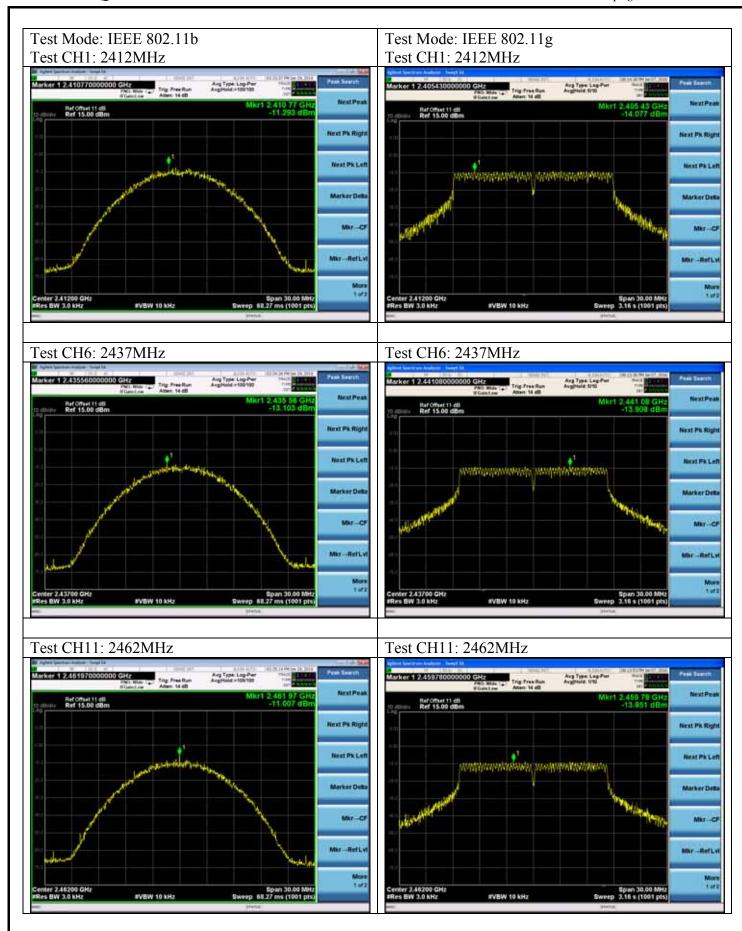
Note: The cable loss and attenuator loss were offset into measure device as an amplitude



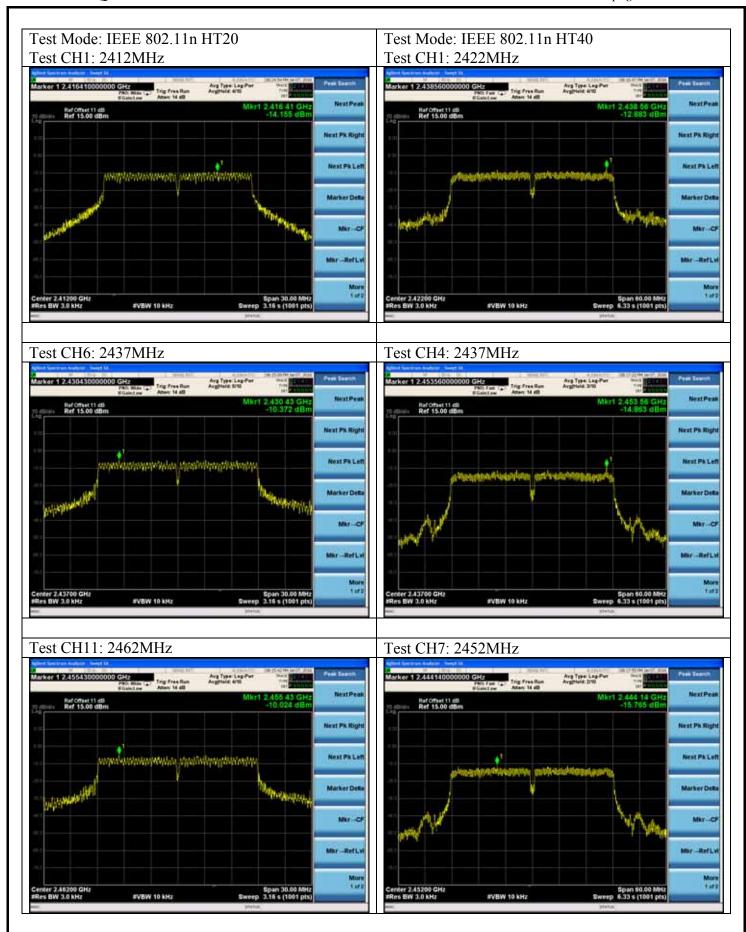
9.4.Test Results

EUT: DIRE	CT VINA BOX					
M/N: A301						
Test date: 2016-01-29		Pressure: 102.1±1.0 kpa		Humidity: 51.8±3.0%		
Tested by: Leo-Li		Test site: RF site		Temperature:22.9±0.6 ℃		
Test	СН		Power Density (dBm/3KHz)		Limit	
Mode	CII				(dBm/3KHz)	
	CH1		-11.293		8	
11b	СН6		-13.103		8	
	CH11		-11.007	r	8	
	CH1		-14.077		8	
11g	CH6		-13.908		8	
	CH11		-13.851	8		
11n	CH1		-14.155		8	
HT20	CH6		-10.372		8	
П120	CH11		-10.024		8	
11	CH1		-12.683	3	8	
11n HT40	CH4		-14.863	3	8	
П140	CH7		-15.765		8	
Conclusion:	PASS				·	

page 9-3



page 9-4





10.MPE ESTIMATION

10.1.Limit for General Population/ Uncontrolled Exposures

Frequency	Power density (mW/cm ²)	Averaging time(minutes)
300MHz1.5GHz	F/1500	30
1.5GHz100GHz	1.0	30

Frequency(MHz)	Power density (mW/cm ²)	Averaging time(minutes)
2412	1	30
2437	1	30
2462	1	30

Note: F= Frequency in MHz



FCC ID: 2AGUQ-A301 page 10-2

10.2. Estimation Result

Test Mode	СН	Frequency (MHz)	Peak Output Power (dBm)	Output Power (mW)	Antenna Gain (dBi)	Antenna Gain (Linear)	МРЕ
	CH1	2412	8.87	7.71	2	1.58	0.0024
11b	CH6	2437	8.52	7.11	2	1.58	0.0022
	CH11 24	2462	8.24	6.67	2	1.58	0.0021
	CH1	2412	14.79	30.13	2	1.58	0.0095
11g	CH6	2437	15.18	32.96	2	1.58	0.0104
	CH11	2462	15.39	34.59	2	1.58	0.0109
11	CH1	2412	14.64	29.11	2	1.58	0.0092
11n HT20	CH6	2437	15.02	31.77	2	1.58	0.0100
П120	CH11	2462	15.27	33.65	2	1.58	0.0106
11	CH3	2422	14.25	14.25 26.61 2 1.58	0.0084		
11n HT40	CH6	2437	14.62	28.97	2	1.58	0.0091
П140	CH9	2452	14.84	30.48	2	1.58	0.0096

$$MPE = \frac{PG}{4\pi R^2} \quad (R=20 \text{ cm})$$

page 11-1

11. ANTENNA REQUIREMENT

11.1. Standard Applicable

For intentional device, according to FCC CFR 47 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 CFR 47 Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

11.2. Antenna Connected Construction

The antenna used for this product are Integrated F and it connector is designed with permanent attachment that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is 2.4dBi.



12-1



[NONE]		
. ,		



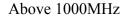
13.PHOTOGRAPH OF TEST

13.1. Photos of Radiated Emission Test















14.PHOTOS OF THE EUT

FCC ID: 2AGUQ-A301

Figure₁

General Appearance of the EUT



Figure 2
General Appearance of the EUT







Figure 3 General Appearance of the EUT



Figure 4 General Appearance of the EUT









Figure 5 General Appearance of the EUT



Figure 6 General Appearance of the EUT







Figure 7 General Appearance of the EUT



Figure 8 General Appearance of the EUT







Figure 9 Inside of the EUT

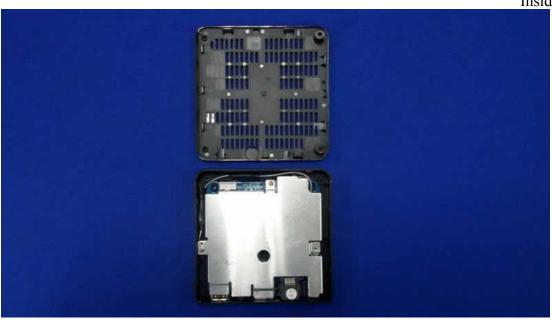


Figure 10 Inside of the EUT



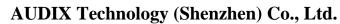






Figure 11 Inside of the EUT



Figure 12 Inside of the EUT



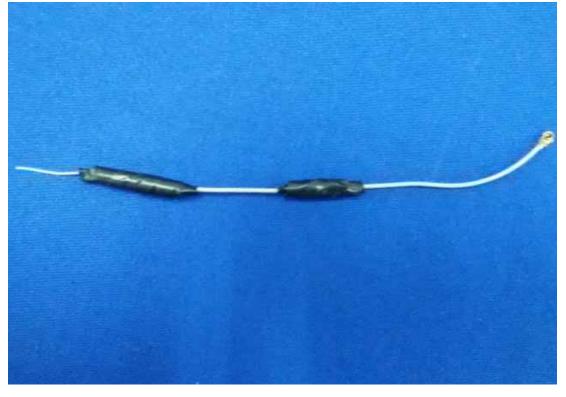


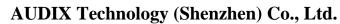


Figure 13 Inside of the EUT



Figure 14 Inside of the EUT







page 14-8

Figure 15 Inside of the EUT



Figure 16Inside of the EUT









Figure 17 Inside of the EUT



Figure 18 Power Adapter







Figure 19 Power Adapter



Figure 20 Remote Controller



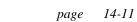




Figure 21 Remote Controller



Figure 22 AV Cable

