



Report No: FCC 1605262 File reference No: 2016-05-31

Applicant: Haier international(hk) limited

Product: Mini PC

Model No: HR-V03P

Trademark: Haier

Test Standards: FCC Part 15.247

It is herewith confirmed and found to comply with the Test result:

requirements set up by ANSI C63.10, FCC Part 15 Subpart C, for the evaluation of

15.247 regulations

electromagnetic compatibility

Approved By

Jack Chung

Jack Chung

Manager

Dated: May 31, 2016

Results appearing herein relate only to the sample tested

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

SHENZHEN TIMEWAY TESTING LABORATORIES

Room 512-519, 5/F., East Tower, Building 4, Anhua Industrial Zone, Futian District, Shenzhen, Guangdong, China

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

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Special Statement:

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

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

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

CNAL-LAB Code: L2292

The EMC Laboratory has been assessed and in compliance with CNAL/AC01:2002 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of testing Laboratories.

FCC-Registration No.: 899988

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

IC-Registration No.: IC5205A-02

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

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1.0 General Details

Test Lab Details 1.1

SHENZHEN TIMEWAY TESTING LABORATORIES. Name:

Address: Room 512-519,5/F., East Tower, Building 4, Anhua Industrial Zone, Futian District, Shenzhen,

Guangdong China

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

Site on File with the Federal Communications Commission – United Sates

Registration Number: 899988

For 3m & 10 m OATS

Site Listed with Industry Canada of Ottawa, Canada

Registration Number: IC: 5205A-02

For 3m & 10 m OATS

1.2 Applicant Details

Applicant: Haier international(hk) limited

Address: No.1 Haier Road, 702B, Chuang Pai Mansion South, Qingdao 266101, P.R. China

Telephone: 0532-88937841 0532-88937816 Fax:

1.3 Description of EUT

Product: Mini PC

Manufacturer: Haier international(hk) limited

Address: No.1 Haier Road, 702B, Chuang Pai Mansion South, Qingdao 266101, P.R. China

Brand Name: Haier Model Number: HR-V03P

Additional Model Number: N/A

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

IEEE 802.11g/n (HT20/40): OFDM(64QAM, 16QAM, QPSK, BPSK)

IEEE802.11b/g/n (HT20/40): 2412-2462MHz,IEEE802.11n (HT40): 2422-2452MHz Frequency range

Channel Spacing 5MHz for IEEE 802.11b/g/n(HT20/40) Air Data Rate IEEE 802.11b: 11, 5.5, 2, 1 Mbps

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

IEEE 802.11n HT20/40: 150, 135, 117, 104, 78, 65, 58.5, 52, 39, 26, 19.5, 13, 6.5

Mbps

Frequency Selection By software

IEEE 802.11b/g/n (HT20): 11 Channels; IEEE 802.11n (HT40): 7 Channels, Channel Number

FPC Antenna and the maximum Gain of this antenna is 2.0dBi; Antenna:

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Power Adapter Model No.: WA-15I05FU

Input: 100-240V, 50/60Hz, 0.5A; Output: DC5V, 3A

Submitted Sample: 2 Samples 1.4

1.5 Test Duration

2016-04-25 to 2016-05-30

1.6 Test Uncertainty

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

1.7 Test Engineer

The sample tested by

Print Name: Terry Tang

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

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3. DESCRIPTION OF TEST MODES

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

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

Channel	Frequency (MHz)
Low	2412
Middle	2437
High	2462

IEEE 802.11b mode: 11Mbps data rate (worst case) was chosen for full testing. IEEE 802.11g mode: 54Mbps data rate (worst case) was chosen for full testing. IEEE 802.11n (HT20) mode: 6.5Mbps data rate (worst case) were chosen for full testing (duty cycle>98%)

IEEE 802.11n (HT40) mode

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

Channel	Frequency (MHz)
Low	2422
Middle	2437
High	2452

IEEE 802.11n (HT40) mode: 6.5Mbps data rate (worst case) were chosen for full testing (duty cycle>98%)

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

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3.0 **Technical Details**

3.1 **Summary of test results**

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

3.2 **Test Standards**

FCC Part 15 Subpart & Subpart C, Paragraph 15.247 and ANSI C63.4:2014 AND ANSI C63.10:2013

4.0 **EUT Modification**

No modification by SHENZHEN TIMEWAY TESTING LABORATORIES

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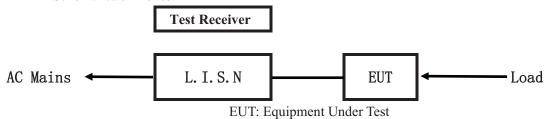
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5.0 **Power Line Conducted Emission Test**

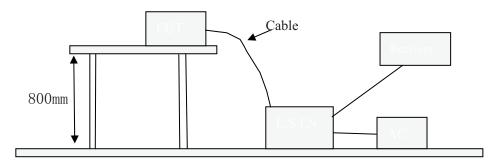
5.1 Schematics of the test



5.2 Test Method and test Procedure

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

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



5.3 Configuration of The EUT

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

EUT A.

Device	Manufacturer	Model	FCC ID
Mini PC	Haier international(hk) limited	HR-V03P	RH2-HR-V03P

В. Internal Device

Device	Manufacturer	Model	FCC ID/DOC
N/A			

C. Peripherals

Device	Manufacturer	Model	FCC ID/DOC	Cable
LCD Display	SAMSUNG	PH2450	DOC	

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5.4 **EUT Operating Condition**

Operating condition is according to ANSI C63.4-2014.

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

5.5 Power line conducted Emission Limit according to Paragraph 15.207 and 15.107

		<u>C 1</u>				
Frequency	Class A Lim	its (dB µ V)	Class B Limits (dB µ V)			
(MHz)	Quasi-peak Level	Average Level	Quasi-peak Level	Average Level		
$0.15 \sim 0.50$	79.0	66.0	66.0~56.0*	56.0~46.0*		
$0.50 \sim 5.00$	73.0	60.0	56.0	46.0		
5.00 ~ 30.00	73.0	60.0	60.0	50.0		

Notes:

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

5.6 Test Results

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

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

EUT Operating Environment

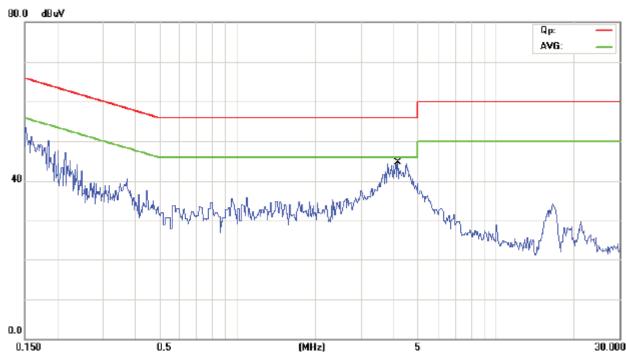
Temperature: 26°C Atmospheric Pressure: 101 KPa Humidity: 65%RH

EUT set Condition: Keep WIFI Transmitting

Equipment Level: Class B

Results: PASS

Please refer to following diagram for individual



No. M	۱k.	Freq.	_		Measure- ment	Limit	Over		
		MHz	dBu∨	dB	dBuV	dBuV	dB	Detector	Comment
1		4.1501	24.40	13.16	37.56	56.00	-18.44	QP	
2 *		4.1501	16.80	13.16	29.96	46.00	-16.04	AVG	

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

EUT Operating Environment

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

EUT set Condition: Keep WIFI Transmitting

Equipment Level: Class B

Results: Pass

Please refer to following diagram for individual

0 484											Qр: AVG:	_
AN MANAGEMENT AND MAN	harm Market	\$ _4^	ı (V	°⊷\\	pykyryalywygh	Japan Maria	gally de de	M V V M	The off has	۸. ۸	godharan an h	MM
										Nagara (-duururur i	h-stys

No. Mk.	Freq.	_	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBu∨	dB	dBuV	dBuV	dB	Detector	Comment
1	4.4116	24.80	13.26	38.06	56.00	-17.94	QP	
2 *	4.4116	16.80	13.26	30.06	46.00	-15.94	AVG	

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6 Radiated Emission Test

- 6.1 Test Method and test Procedure:
- (1) The EUT was tested according to ANSI C63.10–2013. The radiated test was performed at Timeway Laboratory. This site is on file with the FCC laboratory division, Registration No.899988
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.10–2013.
- (3) The frequency spectrum from 30 MHz to 25 GHz was investigated. All readings from 30 MHz to 1 GHz are Quasi-peak values with a resolution bandwidth of 120 kHz. F For measurement above 1GHz, peak values with RBW=1MHz VBW=3MHz and PK detector. AV value with RBW=1MHz, VBW=3MHz and RMS detector. Measurements were made at 3 meters.
- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limit), and are distinguished with a "QP" in the data table.
- (6) The antenna polarization: Vertical polarization and Horizontal polarization.

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

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

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6.4 Radiated Emission Limit

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

Frequencies in restricted band are complied to limit on Paragraph 15.209 and 15.109

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

Note:

- 1. RF Voltage $(dBuV) = 20 \log RF \text{ Voltage } (uV)$
- 2. In the Above Table, the higher limit applies at the band edges.
- 3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT

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Test result

General Radiated Emission Data and Harmonics Radiated Emission Data

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

EUT set Condition: **Keep Transmitting**

Results: Pass

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \mu V/m)
92.800	30.43	Н	43.50
179.520	34.29	Н	43.50
480.000	37.58	Н	46.00
93.960	36.16	V	43.50
930.840	44.07	V	46.00
480.000	39.16	V	46.00

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Test Figure:

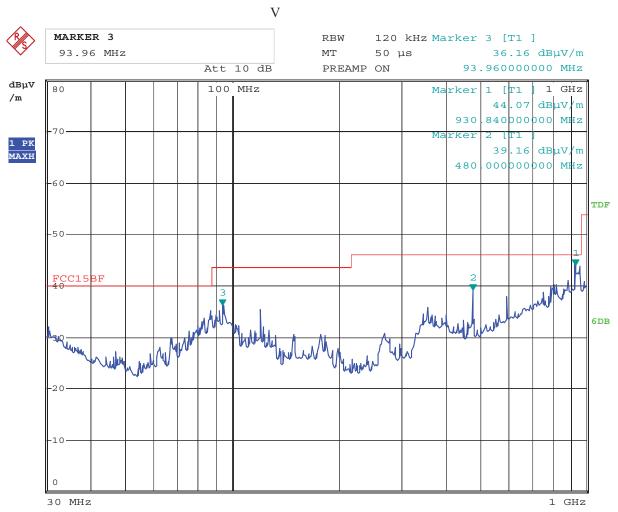
H MARKER 3 RBW 120 kHz Marker 3 [T1] 92.8 MHz MT50 µs $30.43 \text{ dB}\mu\text{V/m}$ Att 10 dB PREAMP ON 92.800000000 MHz $d B \mu V \\$ 80 100 MHz Marker /m 34.29 dBµV/m 179 520000000 M 1 PK MAXH 37 58 dВ 480.000000000 TDF FCC15BF 6DB Julia month 30 MHz 1 GHz

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Test Figure:



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

1	0	0 1	
Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \mu V/m)
4824.00	49.78 (PK)	Н	74(Peak)/ 54(AV)
4824.00	49.32 (PK)	V	74(Peak)/ 54(AV)
7236.00		H/V	74(Peak)/ 54(AV)
9648.00		H/V	74(Peak)/ 54(AV)
12060		H/V	74(Peak)/ 54(AV)
14472		H/V	74(Peak)/ 54(AV)
16884		H/V	74(Peak)/ 54(AV)
19296		H/V	74(Peak)/ 54(AV)
21708		H/V	74(Peak)/ 54(AV)
24120		H/V	74(Peak)/ 54(AV)

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

2. Remark "---" means that the emissions level is too low to be measured

3. For 802.11g mode 54Mbps

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

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4874.00	51.20 (PK)	V	74(Peak)/ 54(AV)
4874.00	51.15 (PK)	Н	74(Peak)/ 54(AV)
7311.00	-	H/V	74(Peak)/ 54(AV)
9748.00		H/V	74(Peak)/ 54(AV)
12185		H/V	74(Peak)/ 54(AV)
14622	-	H/V	74(Peak)/ 54(AV)
17059	-	H/V	74(Peak)/ 54(AV)
19496		H/V	74(Peak)/ 54(AV)
21933		H/V	74(Peak)/ 54(AV)
24370		H/V	74(Peak)/ 54(AV)

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

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

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

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \u03b4 V/m)
4924	51.58 (PK)	Н	74(Peak)/ 54(AV)
4924	51.14 (PK)	V	74(Peak)/ 54(AV)
7368	-	H/V	74(Peak)/ 54(AV)
9848		H/V	74(Peak)/ 54(AV)
12310	-	H/V	74(Peak)/ 54(AV)
14772	-	H/V	74(Peak)/ 54(AV)
17234		H/V	74(Peak)/ 54(AV)
19696		H/V	74(Peak)/ 54(AV)
22158		H/V	74(Peak)/ 54(AV)
24620		H/V	74(Peak)/ 54(AV)

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

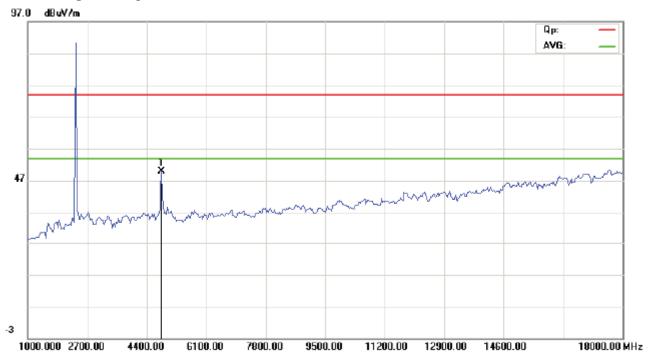
- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11g mode at 54 Mbps

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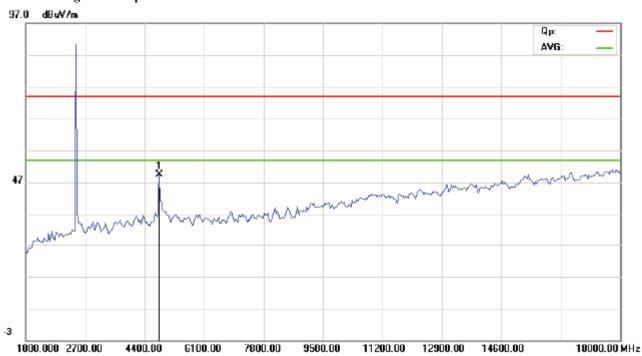


Please refer to the following test plots for details:

CH01 for 11g at 54Mbps: Horizontal



CH01 for 11g at 54Mbps: Vertical



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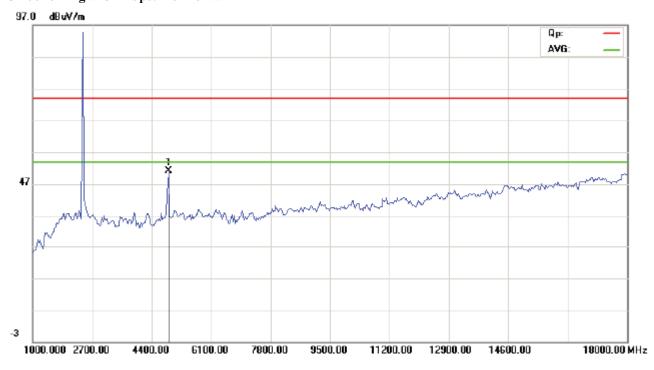
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CH06 for 11g at 54Mbps: Vertical



CH06 for 11g at 54Mbps: Horizontal



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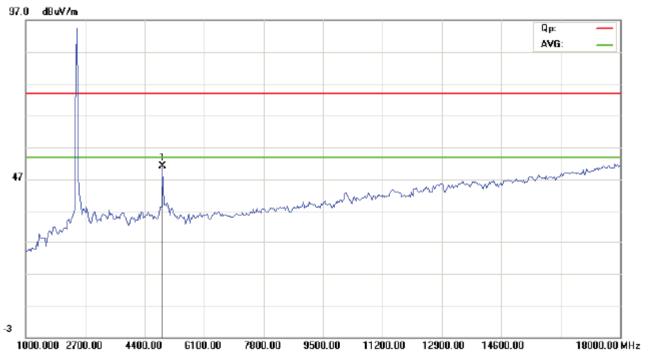
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CH11 for 11g at 54Mbps: Vertical



CH11 for 11g at 54Mbps: Horizontal



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

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

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

	0	1	
Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \mu V/m)
4824.00	52.82 (PK)	Н	74(Peak)/ 54(AV)
4824.00	52.59 (PK)	V	74(Peak)/ 54(AV)
7236.00		H/V	74(Peak)/ 54(AV)
9648.00		H/V	74(Peak)/ 54(AV)
12060		H/V	74(Peak)/ 54(AV)
14472		H/V	74(Peak)/ 54(AV)
16684		H/V	74(Peak)/ 54(AV)
19296		H/V	74(Peak)/ 54(AV)
21708		H/V	74(Peak)/ 54(AV)
24120		H/V	74(Peak)/ 54(AV)

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

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

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

Frequency (MHz)	Level@3m (dB \u03ba V/m)	Antenna Polarity	Limit@3m (dB \u03b4 V/m)
4874.00	50.01 (PK)	Н	74(Peak)/ 54(AV)
4874.00	50.58 (PK)	V	74(Peak)/ 54(AV)
7311.00	-	H/V	74(Peak)/ 54(AV)
9748.00		H/V	74(Peak)/ 54(AV)
12185		H/V	74(Peak)/ 54(AV)
14622	-	H/V	74(Peak)/ 54(AV)
17059		H/V	74(Peak)/ 54(AV)
19496		H/V	74(Peak)/ 54(AV)
21933		H/V	74(Peak)/ 54(AV)
24370		H/V	74(Peak)/ 54(AV)

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

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

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

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

1	0		
Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \u03b4 V/m)
4924	50.79 (PK)	Н	74(Peak)/ 54(AV)
4924	50.63 (PK)	V	74(Peak)/ 54(AV)
7368		H/V	74(Peak)/ 54(AV)
9848		H/V	74(Peak)/ 54(AV)
12310		H/V	74(Peak)/ 54(AV)
14772		H/V	74(Peak)/ 54(AV)
17234		H/V	74(Peak)/ 54(AV)
19696		H/V	74(Peak)/ 54(AV)
22158		H/V	74(Peak)/ 54(AV)
24620		H/V	74(Peak)/ 54(AV)

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

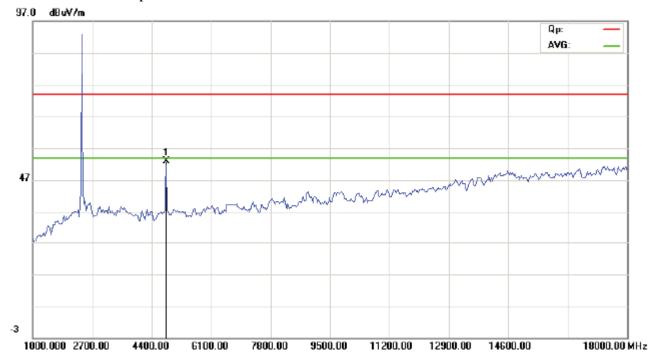
- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11b mode at 11Mbps

Date: 2016-05-31

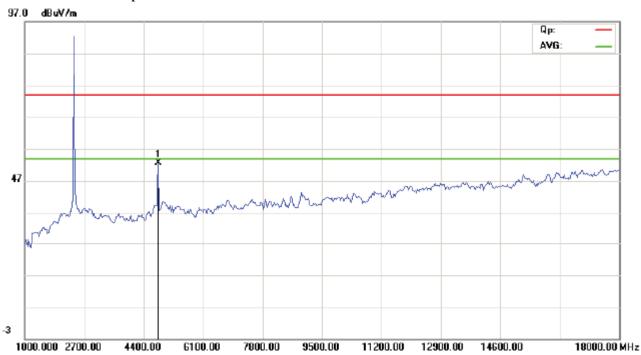


Please refer to the following test plots for details:

CH01 for 11b at 11Mbps: Horizontal



CH01 for 11b at 11Mbps: Vertical



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

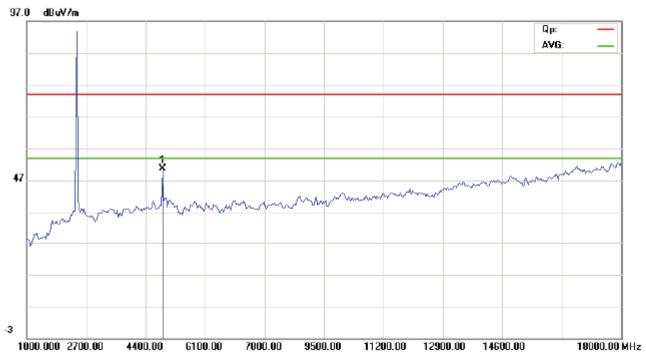
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CH06 for 11b at 11Mbps: Vertical



CH06 for 11b at 11Mbps: Horizontal



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

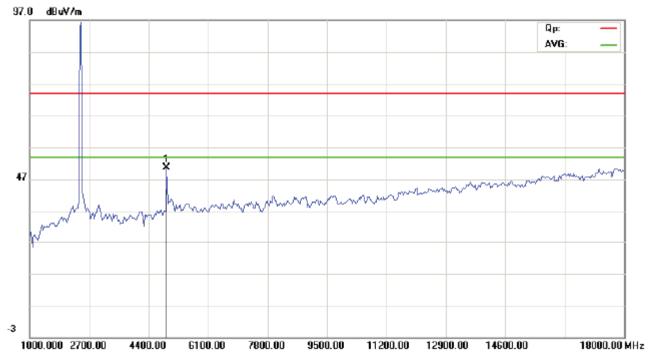
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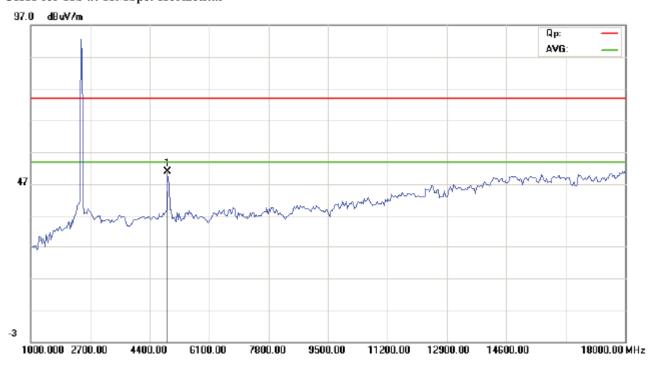
Date: 2016-05-31



CH11 for 11b at 11Mbps: Vertical



CH11 for 11b at 11Mbps: Horizontal



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

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

1	0		1
Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \mu V/m)
4824.00	50.35 (PK)	Н	74(Peak)/ 54(AV)
4824.00	50.09 (PK)	V	74(Peak)/ 54(AV)
7236.00		H/V	74(Peak)/ 54(AV)
9648.00		H/V	74(Peak)/ 54(AV)
12060		H/V	74(Peak)/ 54(AV)
14472		H/V	74(Peak)/ 54(AV)
16684		H/V	74(Peak)/ 54(AV)
19296		H/V	74(Peak)/ 54(AV)
21708		H/V	74(Peak)/ 54(AV)
24120		H/V	74(Peak)/ 54(AV)

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

- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11n (HT20) mode 6.5Mbps

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

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \mu V/m)
4874.00	52.54 (PK)	Н	74(Peak)/ 54(AV)
4874.00	52.19 (PK)	V	74(Peak)/ 54(AV)
7311.00		H/V	74(Peak)/ 54(AV)
9748.00		H/V	74(Peak)/ 54(AV)
12185		H/V	74(Peak)/ 54(AV)
14622		H/V	74(Peak)/ 54(AV)
17059		H/V	74(Peak)/ 54(AV)
19496		H/V	74(Peak)/ 54(AV)
21933		H/V	74(Peak)/ 54(AV)
24370		H/V	74(Peak)/ 54(AV)

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

- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11n (HT20) mode 6.5Mbps

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

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

1	0		1
Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \mu V/m)
4924	51.19 (PK)	Н	74(Peak)/ 54(AV)
4924	51.64 (PK)	V	74(Peak)/ 54(AV)
7368		H/V	74(Peak)/ 54(AV)
9848		H/V	74(Peak)/ 54(AV)
12310		H/V	74(Peak)/ 54(AV)
14772		H/V	74(Peak)/ 54(AV)
17234		H/V	74(Peak)/ 54(AV)
19696		H/V	74(Peak)/ 54(AV)
22158		H/V	74(Peak)/ 54(AV)
24620		H/V	74(Peak)/ 54(AV)

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

2. Remark "---" means that the emissions level is too low to be measured

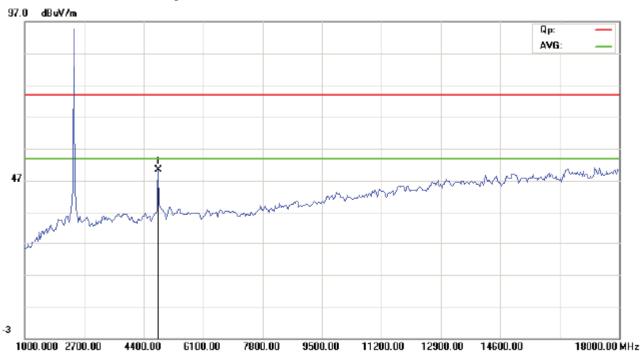
3. For 802.11n (HT20) mode 6.5Mbps

Date: 2016-05-31

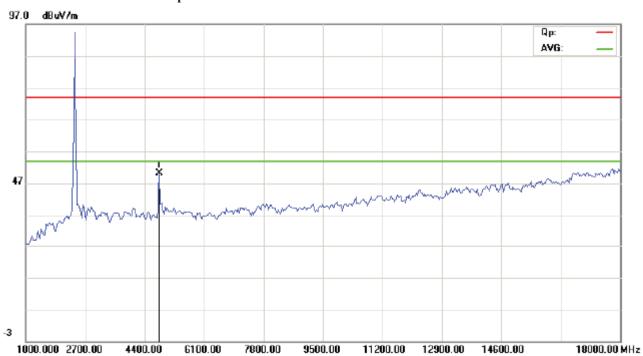


Please refer to the following test plots for details:

CH01 for 11n HT20 at 6.5Mbps: Horizontal



CH01 for 11n HT20 at 6.5Mbps: Vertical



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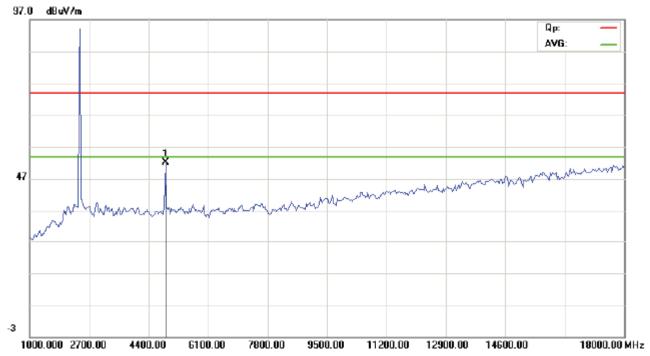
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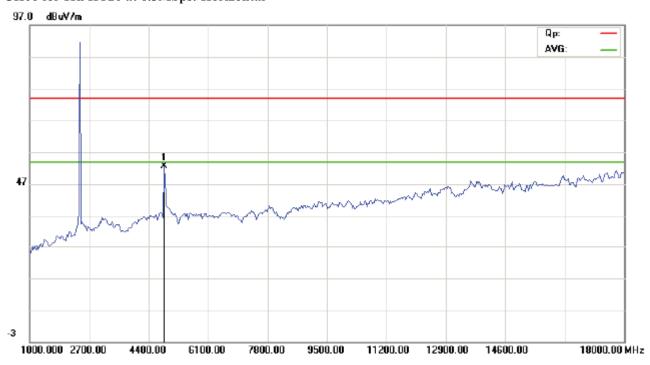
Date: 2016-05-31



CH06 for 11n HT20 at 6.5Mbps: Vertical



CH06 for 11n HT20 at 6.5Mbps: Horizontal



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

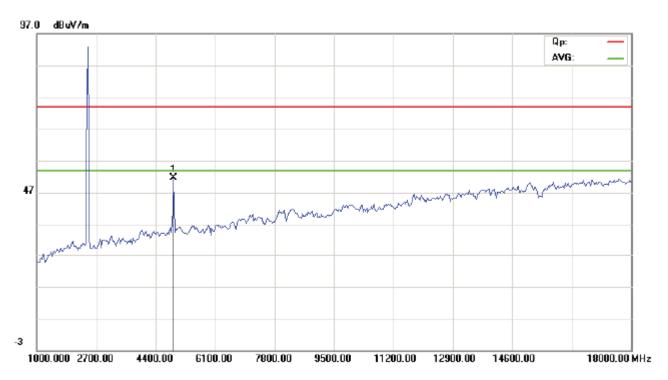
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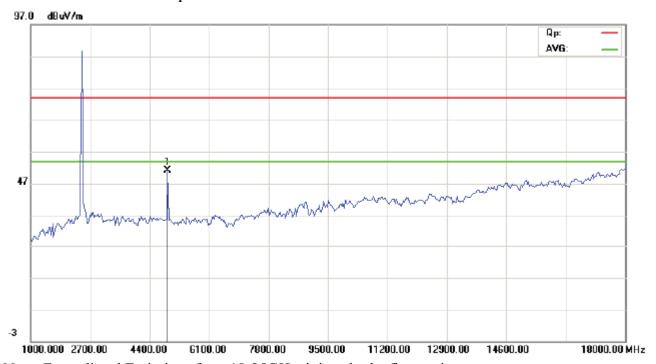
Date: 2016-05-31



CH11 for 11n HT20 at 6.5Mbps: Vertical



CH11 for 11n HT20 at 6.5Mbps: Horizontal



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

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

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \u03b4 V/m)
4844.00	48.51 (PK)	Н	74(Peak)/ 54(AV)
4844.00	48.27 (PK)	V	74(Peak)/ 54(AV)
7266.00	-	H/V	74(Peak)/ 54(AV)
9688.00		H/V	74(Peak)/ 54(AV)
12110		H/V	74(Peak)/ 54(AV)
14532	-	H/V	74(Peak)/ 54(AV)
16954	-	H/V	74(Peak)/ 54(AV)
19376		H/V	74(Peak)/ 54(AV)
21798		H/V	74(Peak)/ 54(AV)
24220		H/V	74(Peak)/ 54(AV)

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

- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11n (HT40) mode 6.5Mbps

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

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \u03b4 V/m)
4874.00	48.16 (PK)	Н	74(Peak)/ 54(AV)
4874.00	48.53 (PK)	V	74(Peak)/ 54(AV)
7311.00		H/V	74(Peak)/ 54(AV)
9748.00		H/V	74(Peak)/ 54(AV)
12185		H/V	74(Peak)/ 54(AV)
14622		H/V	74(Peak)/ 54(AV)
17059		H/V	74(Peak)/ 54(AV)
19496		H/V	74(Peak)/ 54(AV)
21933		H/V	74(Peak)/ 54(AV)
24370		H/V	74(Peak)/ 54(AV)

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

- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11n (HT40) mode 6.5Mbps

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

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

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \u03b4 V/m)
4904	49.32 (PK)	Н	74(Peak)/ 54(AV)
4904	49.58 (PK)	V	74(Peak)/ 54(AV)
7356		H/V	74(Peak)/ 54(AV)
9808		H/V	74(Peak)/ 54(AV)
12260		H/V	74(Peak)/ 54(AV)
14712		H/V	74(Peak)/ 54(AV)
17164		H/V	74(Peak)/ 54(AV)
19616		H/V	74(Peak)/ 54(AV)
22068		H/V	74(Peak)/ 54(AV)
24520		H/V	74(Peak)/ 54(AV)

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

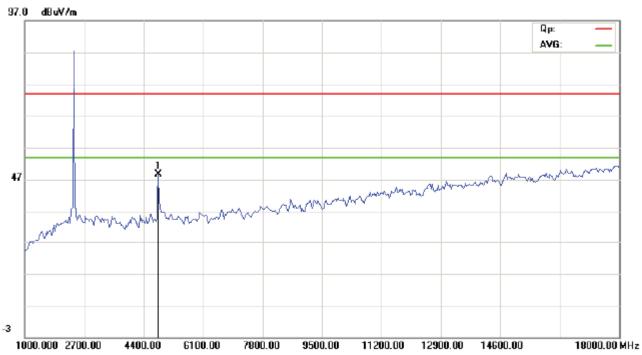
- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11n (HT40) mode 6.5Mbps

Date: 2016-05-31

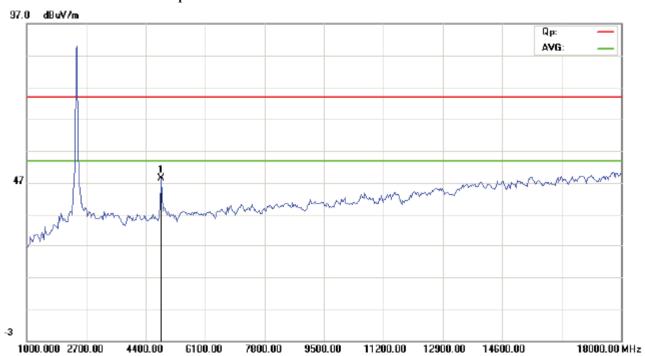


Please refer to the following test plots for details:

CH01 for 11n HT40 at 6.5Mbps: Horizontal



CH01 for 11n HT40 at 6.5Mbps: Vertical



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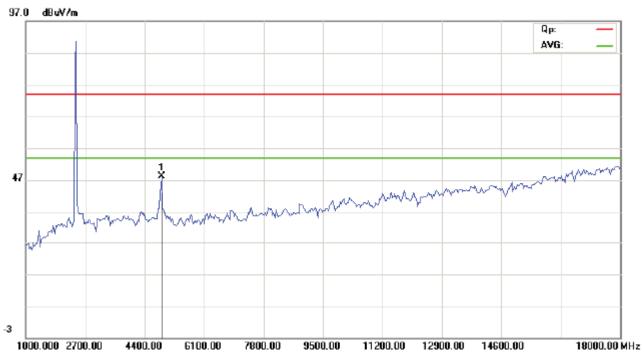
Date: 2016-05-31



CH04 for 11n HT40 at 6.5Mbps: Vertical



CH04 for 11n HT40 at 6.5Mbps: Horizontal



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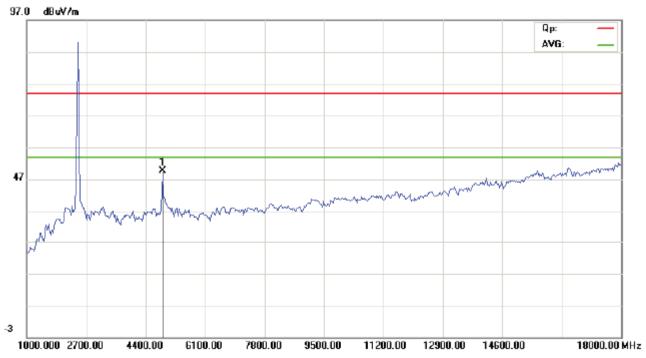
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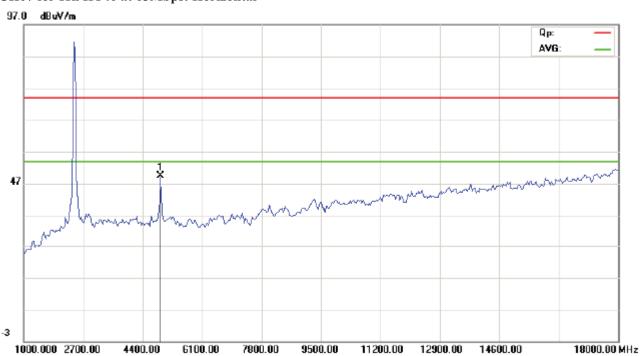
Date: 2016-05-31



CH07 for 11n HT40 at 6.5Mbps: Vertical



CH07 for 11n HT40 at 65Mbps: Horizontal



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

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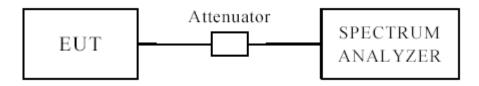
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7.0 6dB Bandwidth Measurement

7.1 Test Setup



7.2 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is >500 kHz

7.3 Test Procedure

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

7.4 Test Result

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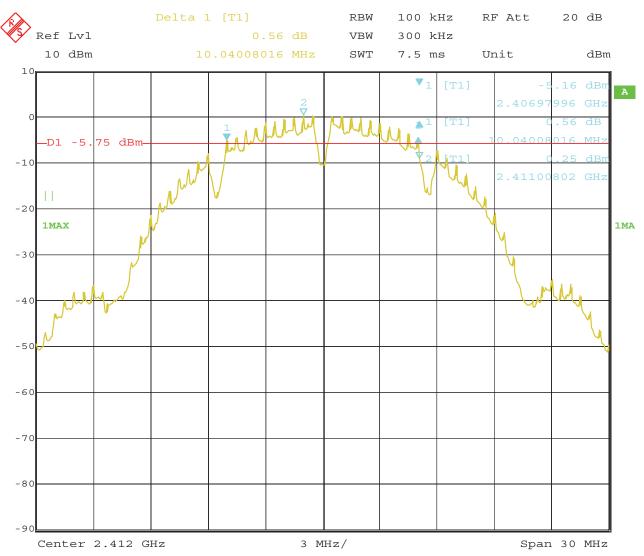
6dB Occupied Bandwidth

EUT		Mi	ni PC		Model		HR	-V03P
Mode		802	2.11b		Input Voltage		12	20V~
Temperati	ure	24 d	leg. C,		Humidity		56	% RH
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)	6 dI	Bandwidth (MHz)	Minimum Limit (MHz)		Pass/ Fail
1		2412	1		10.04		0.5	Pass
6		2437	1		10.04		0.5	Pass
11		2462	1		10.04		0.5	Pass
1		2412	11		10.22		0.5	Pass
6		2437	11		10.22		0.5	Pass
11		2462	11		10.22		0.5	Pass

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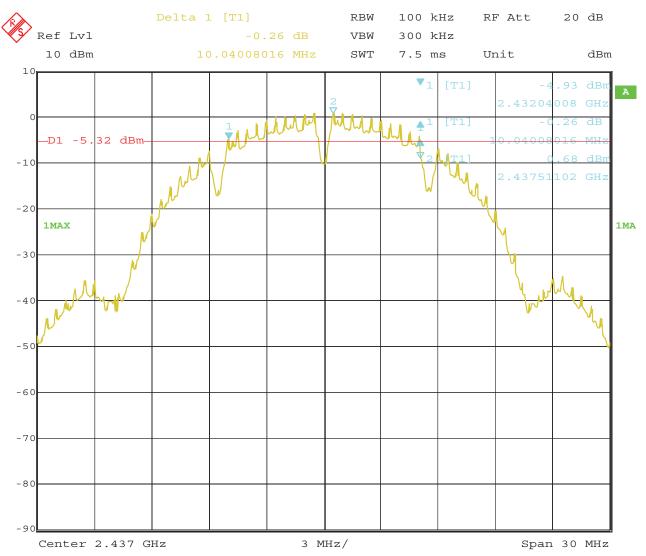




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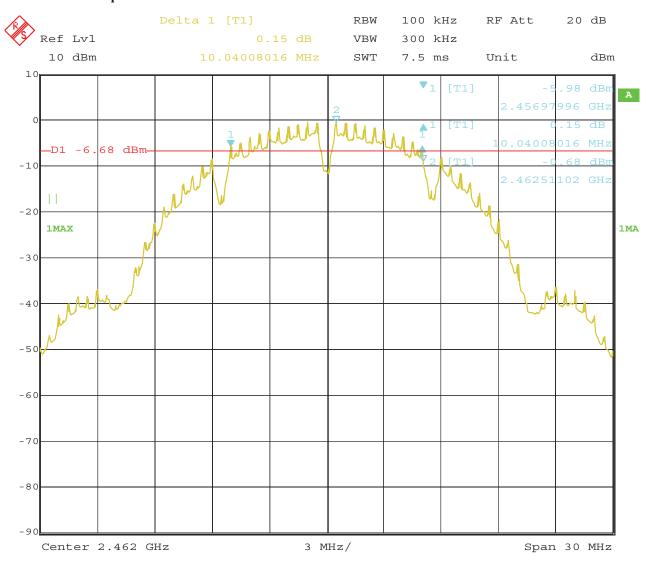




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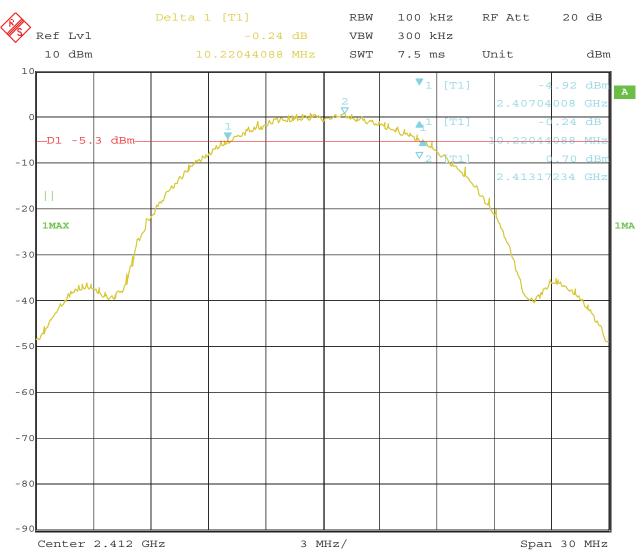




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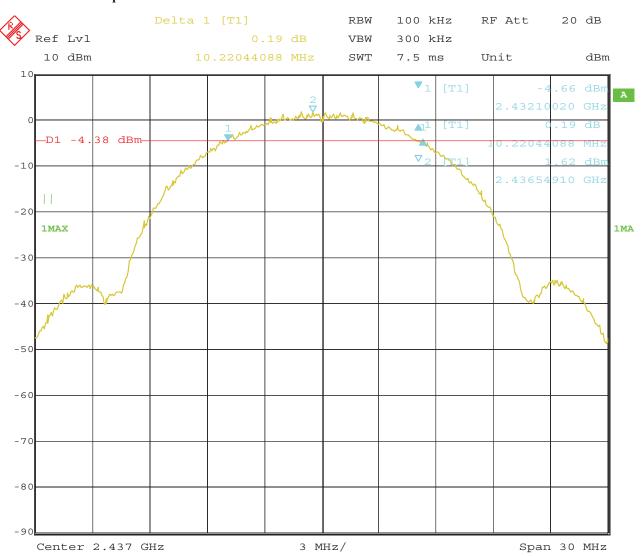




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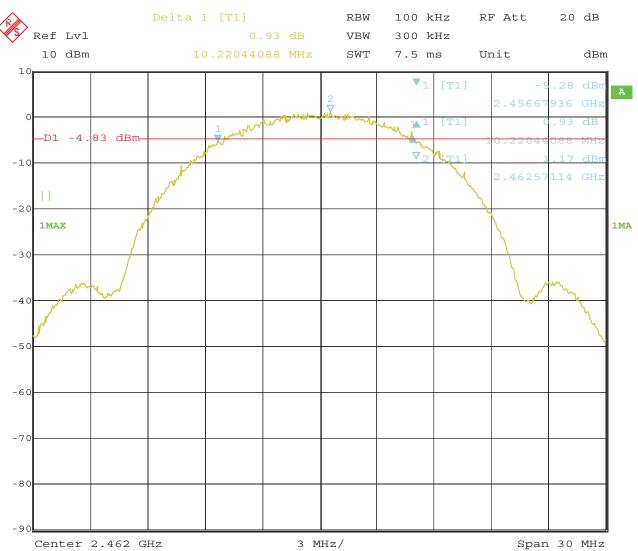




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6dB Occupied Bandwidth

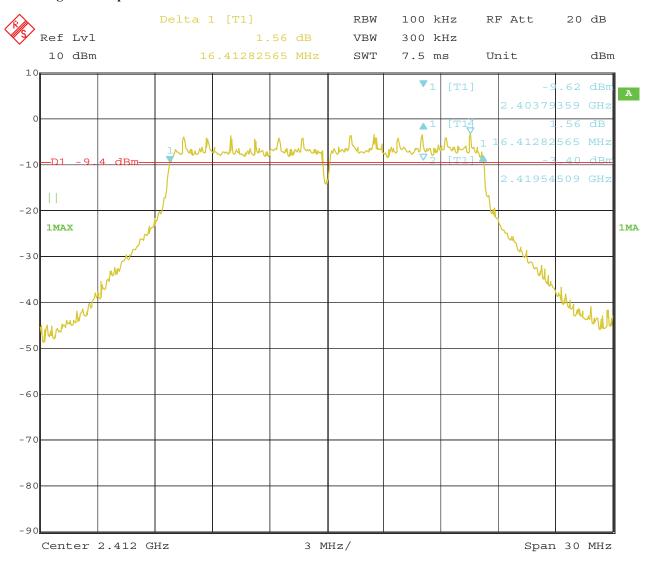
EUT	UT Mini P		ni PC	Model			HR-V03P		
Mode		80	2.11g		Input Voltage	e 120V~			
Temperat	ure	24 0	leg. C,		Humidity			56% RH	
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)	6 dI	B Bandwidth (MHz)	М	Iinimum Limit (MHz)	Pass/ Fail	
1		2412	54		16.41		0.5	Pass	
6		2437	54		16.41		0.5	Pass	
11		2462	54		16.41		0.5	Pass	

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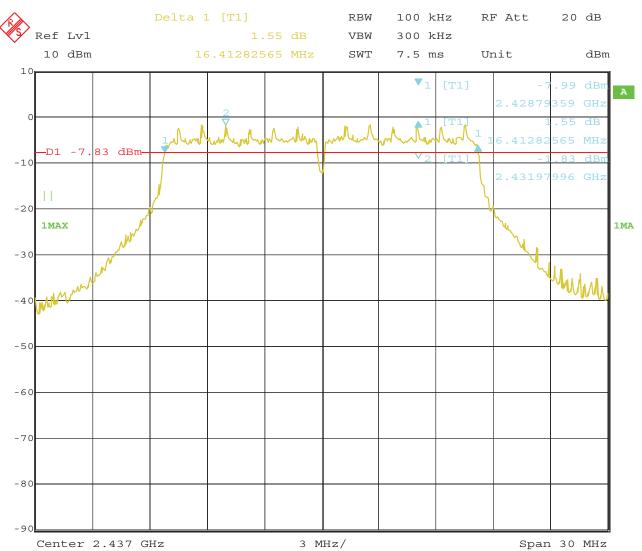
Test Plots:



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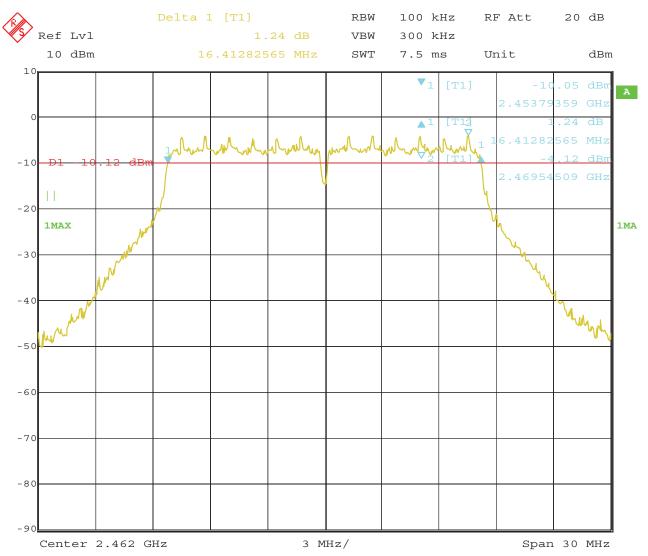




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6dB Occupied Bandwidth

EUT		Min	i PC		Model		I	IR-V03P
Mode		802.11	n HT20		Input Voltage			120V~
Temperat	ure	24 de	eg. C,		Humidity		:	56% RH
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)	6	dB Bandwidth (MHz)	N	Minimum Limit (MHz)	Pass/ Fail
1		2412	6.5M	17.56			0.5	Pass
6	2437 6.5M		6.5M		17.56		0.5	Pass
11		2462	6.5M		17.56		0.5	Pass

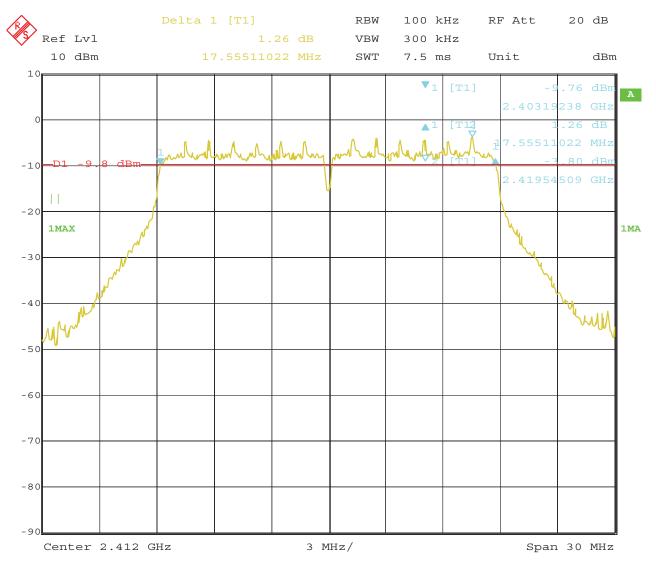
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Test Plots:

1. 802.11n at HT20 of CH01

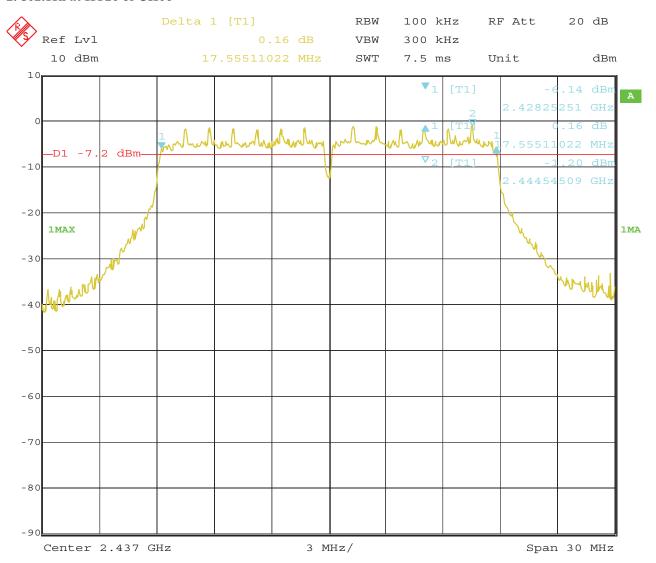


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2. 802.11n at HT20 of CH06

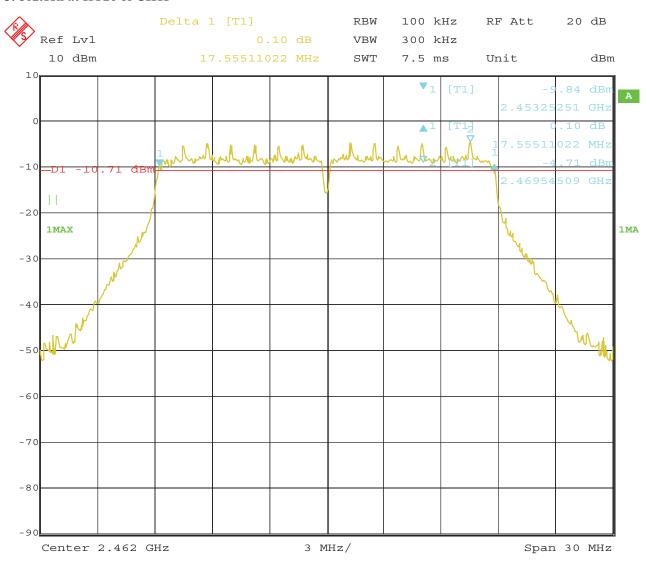


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3. 802.11n at HT20 of CH11



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6dB Occupied Bandwidth

EUT		Min	i PC		Model	HR	R-V03P
Mode		802.11	n HT40		Input Voltage	1	20V~
Temperat	ure	24 de	eg. C,		Humidity	56	5% RH
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)	6	dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass/ Fail
1		2422	6.5M		35.77	0.5	Pass
4		2437	6.5M		35.77	0.5	Pass
7		2452	6.5M		35.77	0.5	Pass

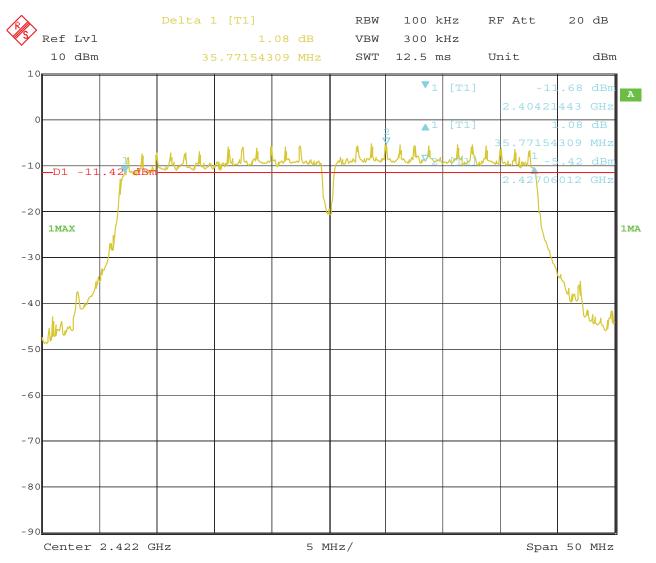
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Test Plots:

1. 802.11n at HT40 of CH01

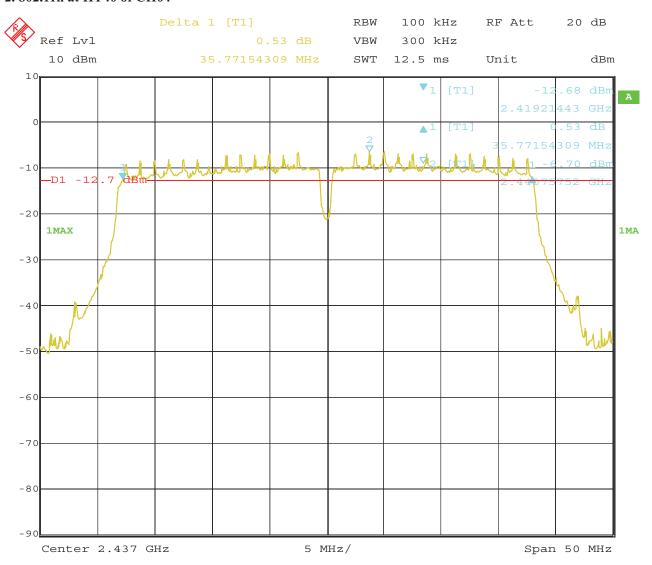


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2. 802.11n at HT40 of CH04

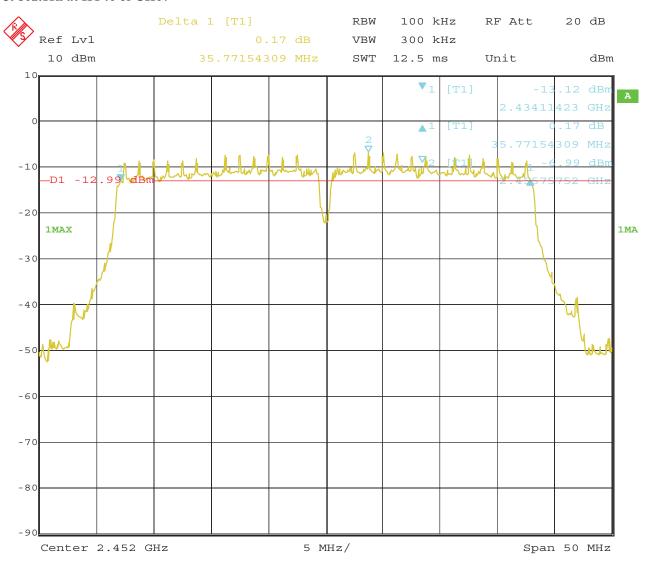


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3. 802.11n at HT40 of CH07



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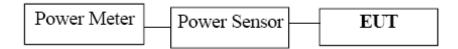
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8. Maximum Output Power

8.1 Test Setup



8.2 Limits of Maximum Output Power

The Maximum Output Power Measurement is 30dBm.

8.3 Test Procedure

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

Note: the Peak power were measured.

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8.4Test Results

EUT		Mini PC		Model			HR-V03P
Mode		802.11b		Input Voltage		120V~	
Temperature		24 deg. C	,	Humidity	7		56% RH
Channel	nel Channel Frequency (MHz)		Max. Power Output (dBm) Peak			wer Limit (dBm)	Pass/ Fail
				11Mbps			
1		2412	15.85			30	Pass
6		2437	-	16.25		30	Pass
11		2462		15.69		30	Pass
				1Mbps			
1	2412		11.97		30	Pass	
6	2437 1		12.79		30	Pass	
11	2462		-	12.15		30	Pass

Note: 1. The result basic equation calculation as follow:

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

2. The worse case was recorded

EUT		Mini PC		Model			HR-V03P
Mode	Mode 802.11		Input Voltage		e	120V~	
Temperature		24 deg. C,	24 deg. C,		Humidity		56% RH
Channel	Cha	Channel Frequency		Power Output (dBm)	3m) P		Pass/ Fail
1		2412		16.29		30	Pass
6		2437		17.90		30	Pass
11		2462		16.05		30	Pass

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

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

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EUT		Mini PC		Model			HR-V03P
Mode	Mode 802.11n (HT		20) Input Voltage		;	120V~	
Temperati	Temperature		24 deg. C,		Humidity		56% RH
Channel	Channel Frequency (MHz)		Max.	Max. Power Output (dBm)		Power Limit (dBm)	Pass/ Fail
		,	Peak			(")	
1		2412		15.76		30	Pass
6	·	2437		17.62		30	Pass
11		2462		14.41		30	Pass

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

2. The result basic equation calculation as follow: Max. Power Output = Power Reading + Cable loss + Attenuator

3. The worse case was recorded

EUT		Mini PC		Model			HR-V03P
Mode	Mode 802.11n (HT4		Input Voltage		;	120V~	
Temperati	Temperature 24 deg. 0		Humidity				56% RH
Channel	Cha	annel Frequency (MHz)	Max.	Max. Power Output (dBm)		Power Limit (dBm)	Pass/ Fail
			Peak				
1		2422		16.17		30	Pass
4		2437		15.40		30	Pass
7		2452		14.78		30	Pass

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

2. The result basic equation calculation as follow:

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

3. The worse case was recorded

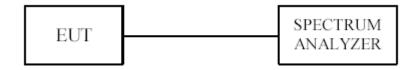
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9. Power Spectral Density Measurement

9.1 Test Setup



9.2 Limits of Power Spectral Density Measurement

The Maximum Power Spectral Density Measurement is 8dBm.

9.3 Test Procedure

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

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9.4Test Result

EUT		Mini PC		Model			HR-V03P
Mode		802.11b 11Mbps		Input Voltag	Input Voltage		120V~
Temperat	ure	24 deg. C,		Humidity		56% RH	
Channel	Channel Channel Frequer (MHz)		Final RF Power Level (dBm)		Max	ximum Limit (dBm)	Pass/ Fail
				11Mbps			
1		2412		-8.78		8	Pass
6	6 2437		-8.14		8	Pass	
11	11 2462			-8.49		8	Pass

EUT		Mini PC		Model			HR-V03P
Mode		802.11b 1Mbps		Input Voltag	Input Voltage		120V~
Temperati	ure	24 deg. C.	,	Humidity			56% RH
Channel	Cha	annel Frequency	Fina	RF Power	Max	kimum Limit	Pass/ Fail
Channel		(MHz)	Leve	el in (dBm)		(dBm)	
				1Mbps			
1		2412		-9.13		8	Pass
6 2437			-8.51		8	Pass	
11 2462		2462		-9.68		8	Pass

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EUT Mir		Mini PC		Model		HR-V03P	
Mode	Mode 802.11g 54N		Ibps Input Voltag		е		120V~
Temperature		24 deg. C	,	Humidity		56% RH	
Channel	Cha	annel Frequency (MHz)	Final RF Power Level in (dBm)		Ma	aximum Limit (dBm)	Pass/ Fail
				54Mbps			
1		2412	_	-11.85		8	Pass
6	6 2437		-	10.05		8	Pass
11		2462	-	11.94		8	Pass

EUT	EUT Min			Model	Model		HR-V03P
Mode	Mode 802.11n H		.5Mbps	Input Voltage			120V~
Temperature		24 deg. C	,	Humidity			56% RH
Channel	Cha	annel Frequency (MHz)	Final RF Power Level (dBm)		M	faximum Limit (dBm)	Pass/ Fail
				HT20			
1		2412	_	-13.05		8	Pass
6 2437		10.05		8	Pass		
11		2462	-	13.49		8	Pass

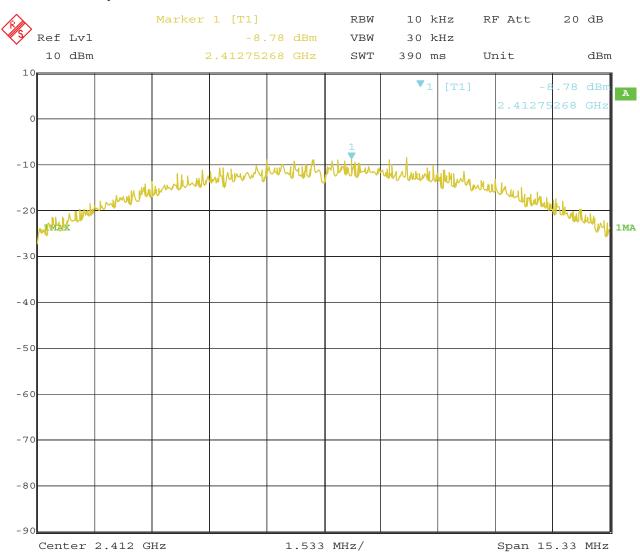
EUT		Mini PC		Model		HR-V03P		
Mode		802.11n HT40 6.5Mbps		Input Voltage		120V~		
Temperature		24 deg. C,		Humidity			56% RH	
Channel	Channel Frequency (MHz)		Final RF Power Level (dBm)		N	Maximum Limit (dBm)	Pass/ Fail	
HT40								
1	2422		-15.21			8	Pass	
4	2437 -16.34		-16.34		8	Pass		
7		2452		-15.62		8	Pass	

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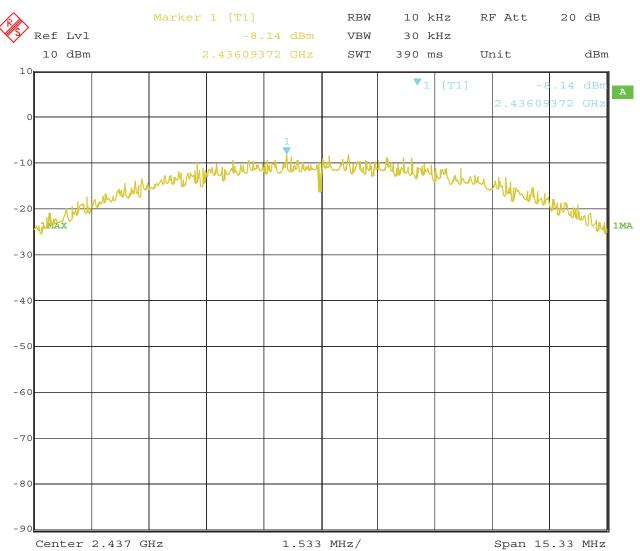
9.5 Photo of Power Spectral Density Measurement



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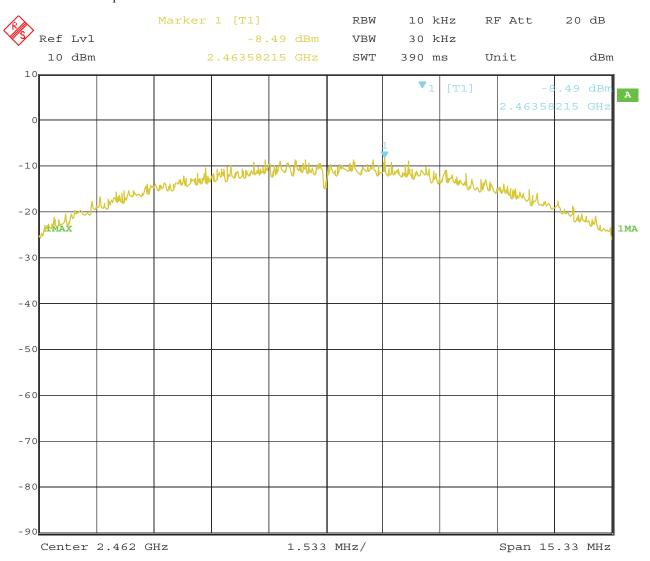


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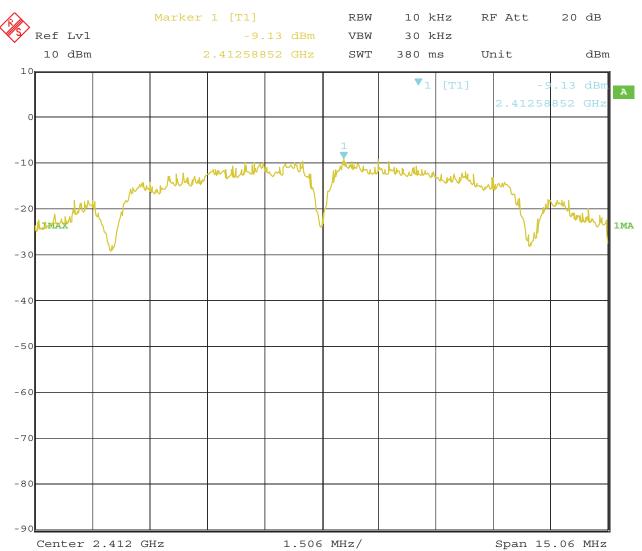


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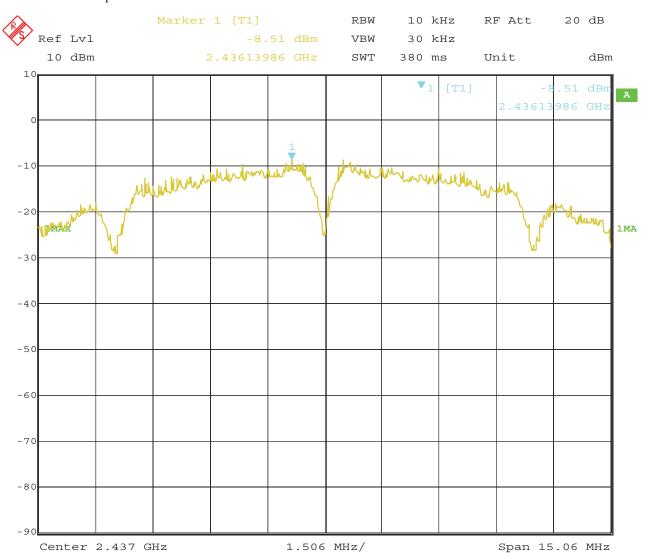


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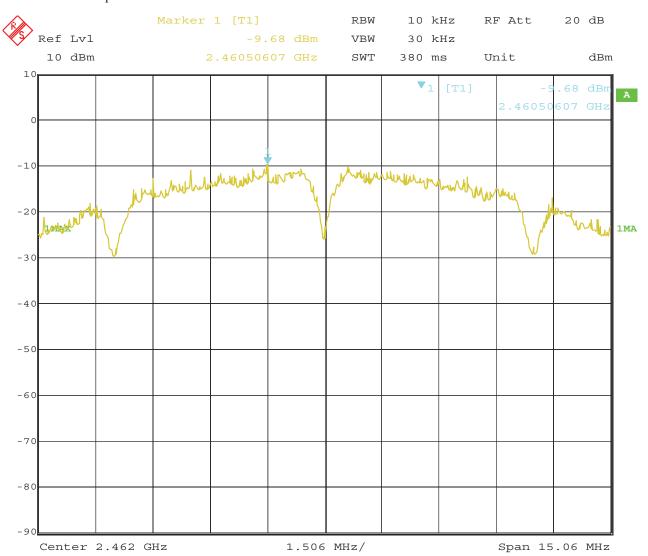


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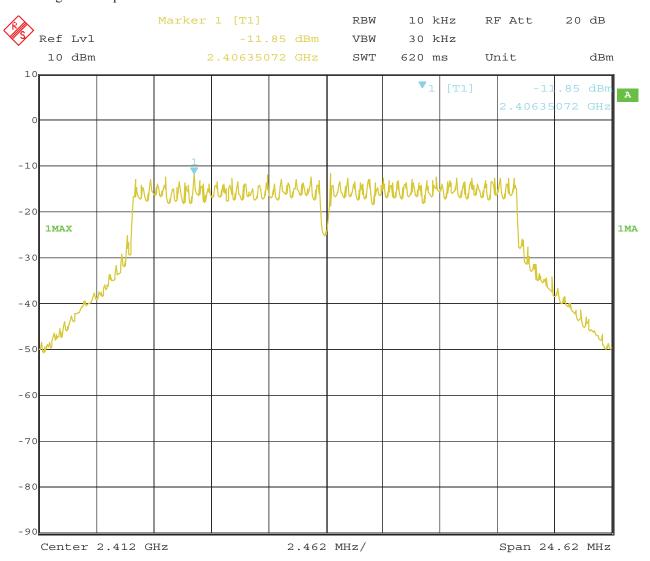




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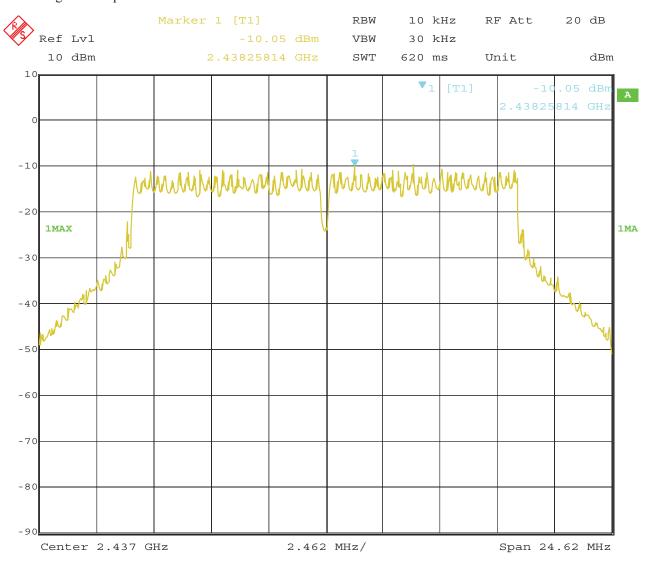




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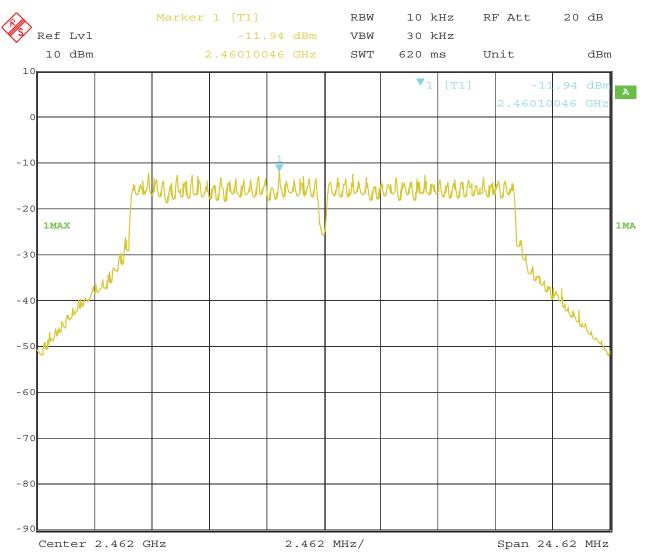




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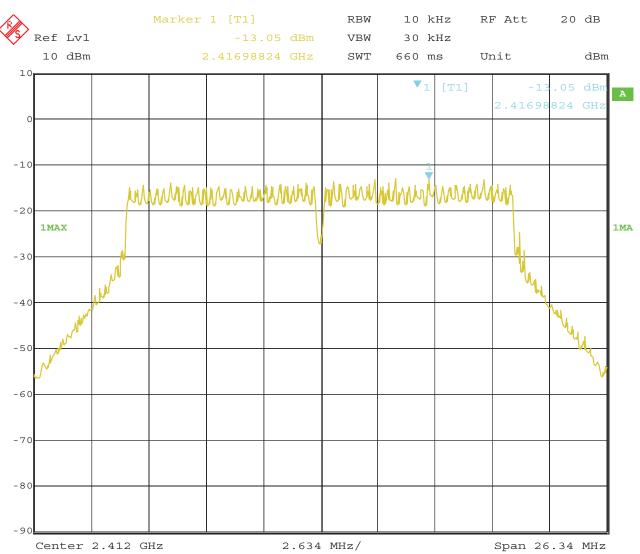


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10. 802.11n at HT20 of CH01

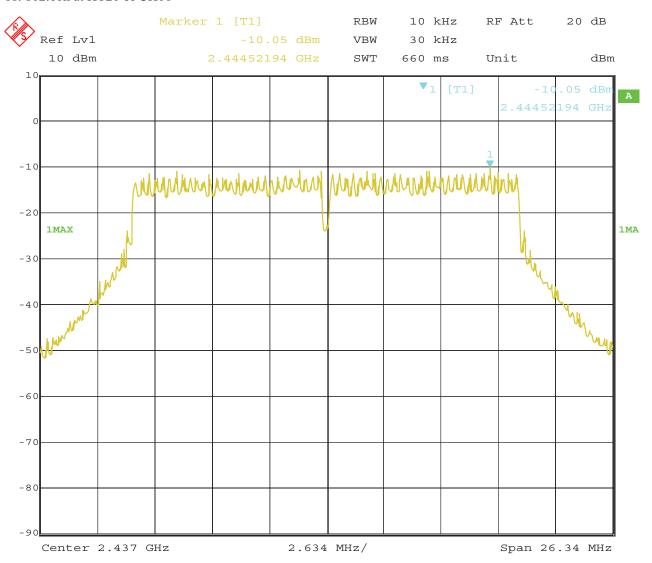


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11. 802.11n at HT20 of CH06

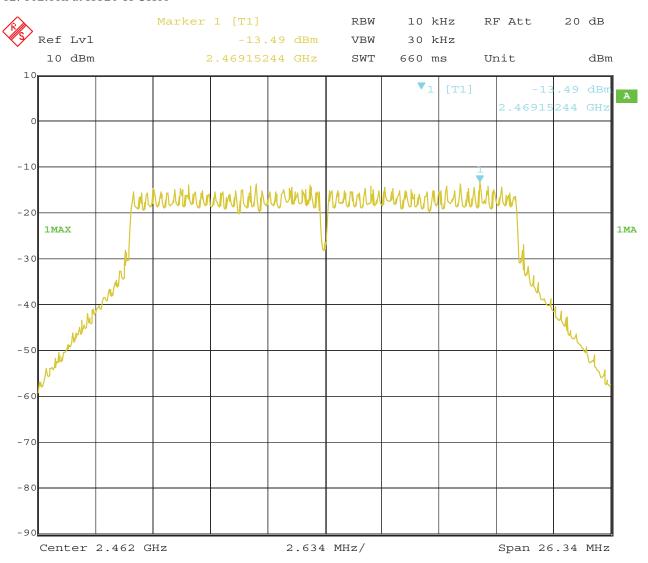


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12. 802.11n at HT20 of CH11

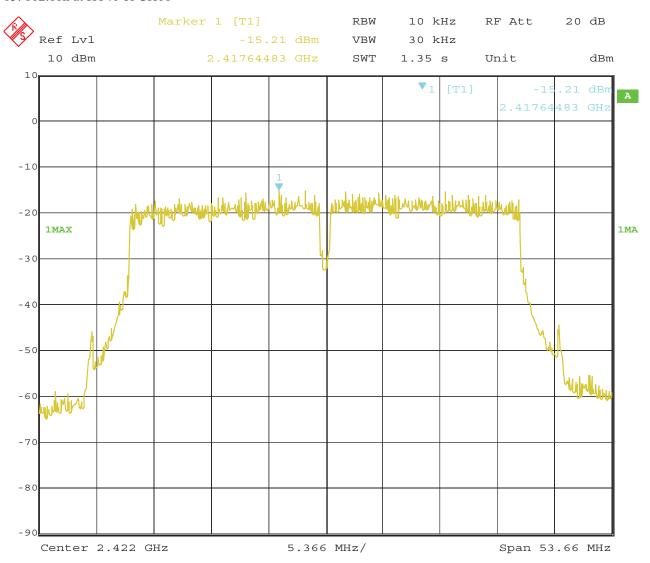


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13. 802.11n at HT40 of CH01

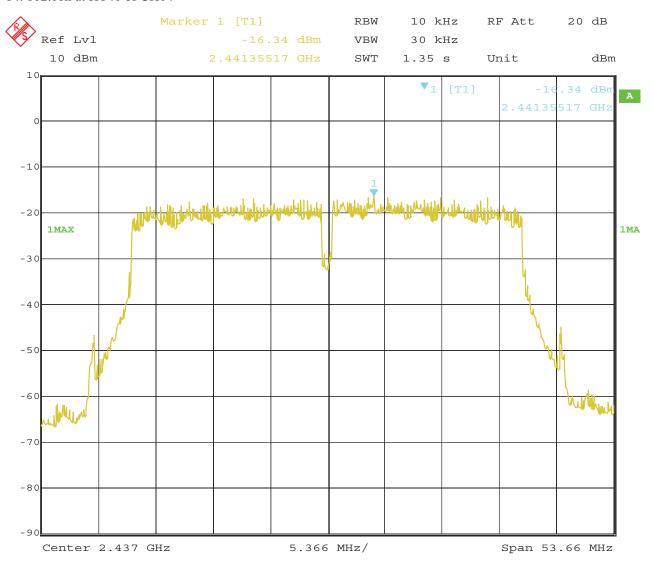


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14. 802.11n at HT40 of CH04

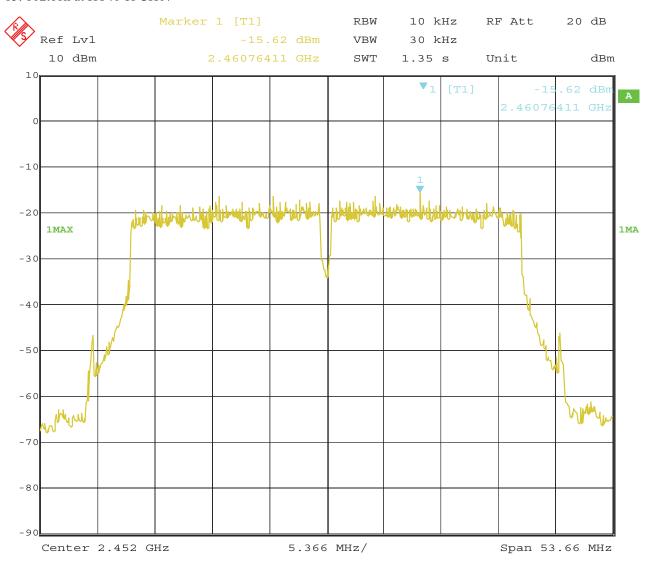


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15. 802.11n at HT40 of CH07

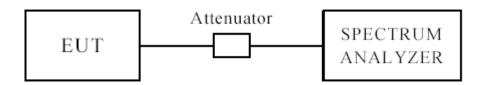


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10 Out of Band Measurement 10.1 Test Setup for band edge



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

10.2 Limits of Out of Band Emissions Measurement

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

10.3 Test Procedure

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

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

10.4 Test Result

Please see next pages

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

H and V polarity all have been tested, only worse case is reported

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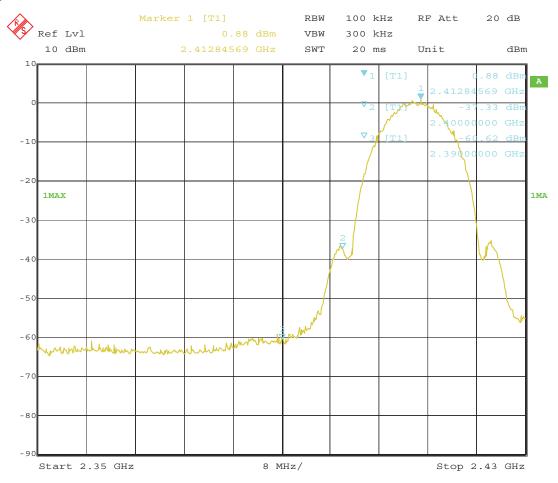
For 802.11b mode

CH01 at 11Mbps

Band-edge and Restricted band Measurement 10.4

EUT	Mini PC		Model	HR-V03P
Mode	Keeping Transmitting		Input Voltage	120V~
Temperature	24 deg. C,		Humidity	56% RH
Test Result:]	Pass	Detector	PK
2400	PK (dBµV/m)	66.2	T imait	$74(dB\mu V/m)$
	AV (dBμV/m)	47.5	Limit	$54(dB\mu V/m)$
2390	PK (dBμV/m)	46.2	Limit	74(dBμV/m)
	AV (dBμV/m)		Lillill	54(dBμV/m)

Test Figure:



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

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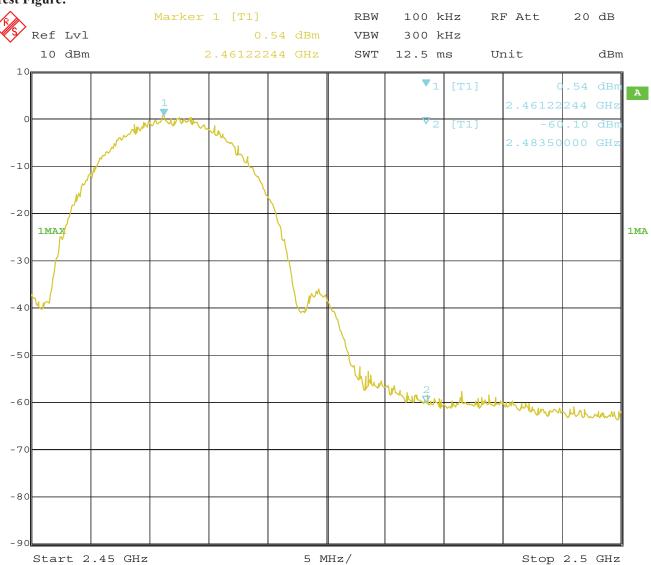


CH11 at 11Mbps

10.4 Band-edge and Restricted band Measurement

EUT	Mini PC		Model	HR-V03P
Mode	Keeping Transmitting		Input Voltage	120V~
Temperature	24 deg. C,		Humidity	56% RH
Test Result:	Pass		Detector	PK
2483.5	PK (dBμV/m)	52.7	T,	$74(dB\mu V/m)$
	AV (dBμV/m)	34.5	Limit	54(dBμV/m)

Test Figure:



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

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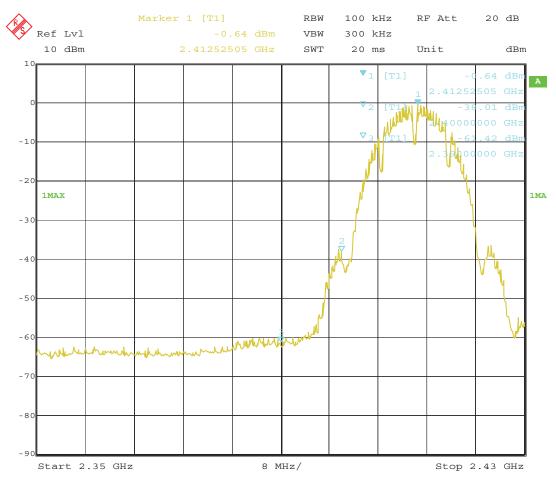
For 802.11b mode

CH01 at 1Mbps

Band-edge and Restricted band Measurement 10.4

EUT	Mini PC		Model	HR-V03P
Mode	Keeping '	Transmitting	Input Voltage	120V~
Temperature	24 deg. C,		Humidity	56% RH
Test Result:]	Pass	Detector	PK
2400	PK (dBµV/m)	65.6	Limit	$74(dB\mu V/m)$
	AV (dBμV/m)	46.1	Limit	$54(dB\mu V/m)$
2390	PK (dBµV/m)	45.6	Limit	$74(dB\mu V/m)$
	AV (dBμV/m)		Lillill	$54(dB\mu V/m)$

Test Figure:



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

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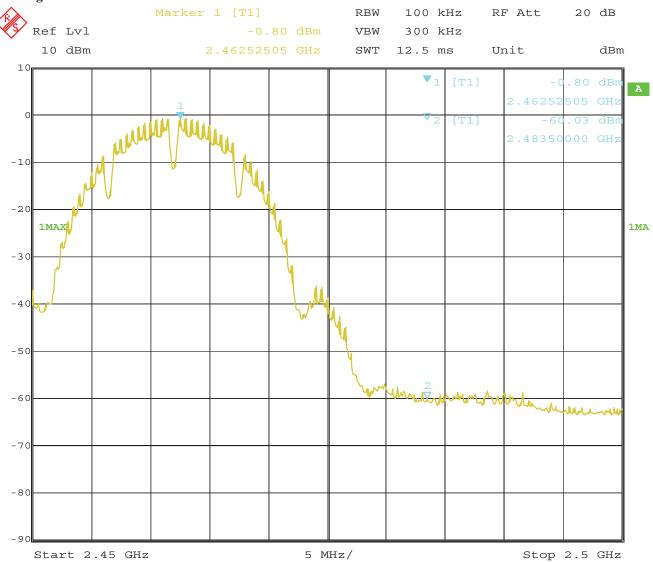


CH11 at 1Mbps

10.4 Band-edge and Restricted band Measurement

EUT	Mini PC		Model	HR-V03P
Mode	Keeping Transmitting		Input Voltage	120V~
Temperature	24 deg. C,		Humidity	56% RH
Test Result:	Pass		Detector	PK
2483.5	PK (dBμV/m)	51.9	T ::4	$74(dB\mu V/m)$
	AV (dBμV/m)	32.5	Limit	$54(dB\mu V/m)$

Test Figure:



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

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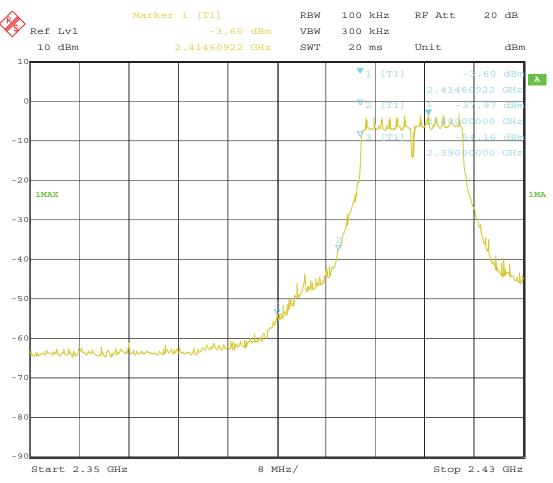
For 802.11g mode

CH01 at 54Mbps

Band-edge and Restricted band Measurement 10.4

EUT	Mini PC		Model	HR-V03P
Mode	Keeping Transmitting		Input Voltage	120V~
Temperature	24 deg. C,		Humidity	56% RH
Test Result:	I	Pass	Detector	PK
2400	PK (dBµV/m)	68.9	T imit	$74(dB\mu V/m)$
	AV (dBμV/m)	49.1	Limit	$54(dB\mu V/m)$
2390	PK (dBµV/m)	58.2	Limit	$74(dB\mu V/m)$
	AV (dBμV/m)	39.6	Lillit	$54(dB\mu V/m)$

Test Figure:



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

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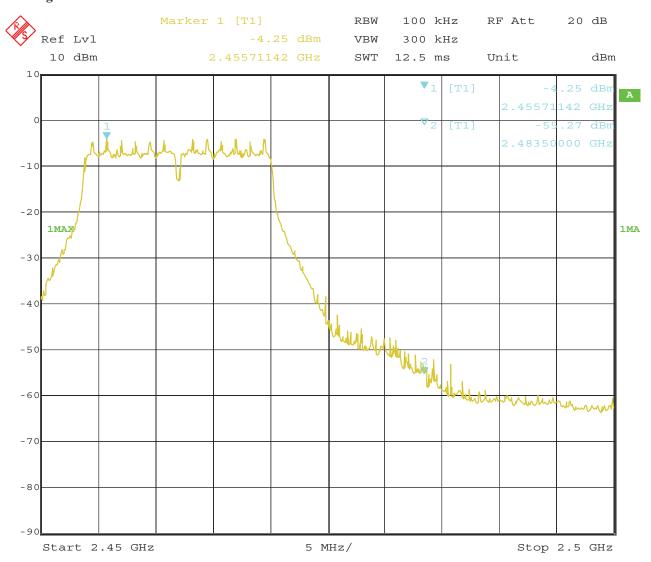


CH11 at 54Mbps

10.4 Band-edge and Restricted band Measurement

EUT	Mini PC		Mod	lel	HR-V03P
Mode	Keeping Transmitting		Input V	oltage	120V~
Temperature	24 deg. C,		Humi	dity	56% RH
Test Result:	Pass		Detec	ctor	PK
2483.5	PK (dBµV/m)	57.6	T ::4	74(dBμV/m) 54(dBμV/m)	
	AV (dBμV/m)	38.8	Limit		

Test Figure:



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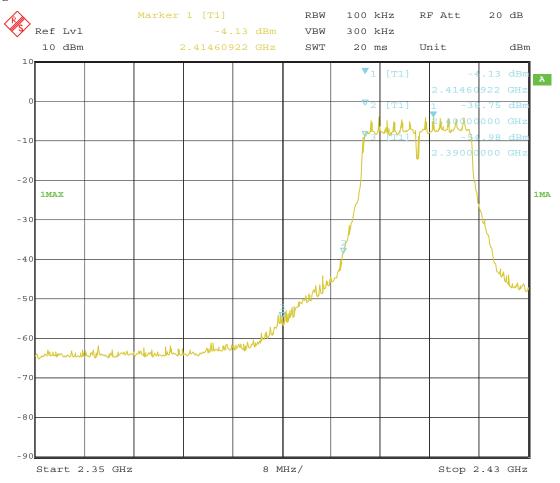
For 802.11n (HT20) mode

CH01 at 6.5Mbps

10.4 Band-edge and Restricted band Measurement

EUT	Mini PC		Model	HR-V03P
Mode	Keeping	g Transmitting	Input Voltage	120V~
Temperature	24 deg. C,		Humidity	56% RH
Test Result:		Pass	Detector	PK
2400	PK (dBµV/m)	70.1	Limit	74(dBμV/m)
	AV (dBμV/m)	49.9	Limit	54(dBµV/m)
2390	PK (dBμV/m)	56.9	Limit	$74(dB\mu V/m)$
	AV (dBμV/m)	37.8	Lillit	54(dBµV/m)

Test Figure:



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

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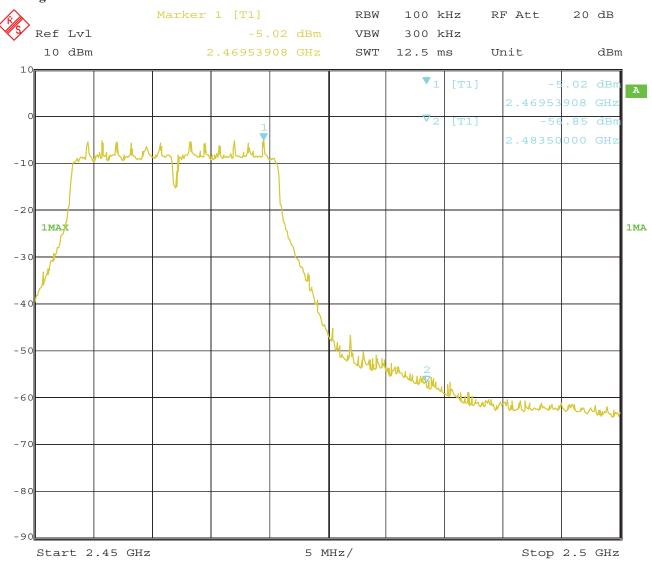


CH11 at 6.5Mbps

10.4 Band-edge and Restricted band Measurement

EUT	Mini PC		Model	HR-V03P
Mode	Keeping Transmitting		Input Voltage	120V~
Temperature	24 deg. C,		Humidity	56% RH
Test Result:	Pass		Detector	PK
2483.5	PK (dBμV/m)	58.8	T ::4	$74(dB\mu V/m)$
	AV (dBμV/m)	39.2	Limit	54(dBμV/m)

Test Figure:



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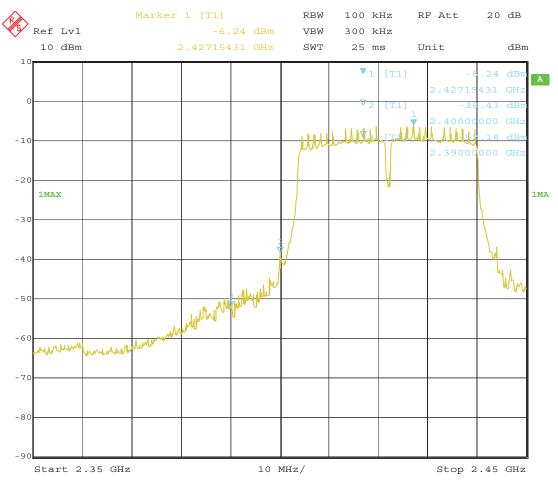
For 802.11n (HT40) mode

CH01 at 6.5Mbps

10.4 Band-edge and Restricted band Measurement

EUT	Mini PC		Model	HR-V03P
Mode	Keeping Transmitting		Input Voltage	120V~
Temperature	24 deg. C,		Humidity	56% RH
Test Result:		Pass	Detector	PK
2400	PK (dBµV/m)	68.3	T imait	$74(dB\mu V/m)$
	AV (dBμV/m)	49.2	Limit	$54(dB\mu V/m)$
2390	PK (dBµV/m)	58.5	Limit	$74(dB\mu V/m)$
	AV (dBμV/m)	40.1	LIIIII	54(dBμV/m)

Test Figure:



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

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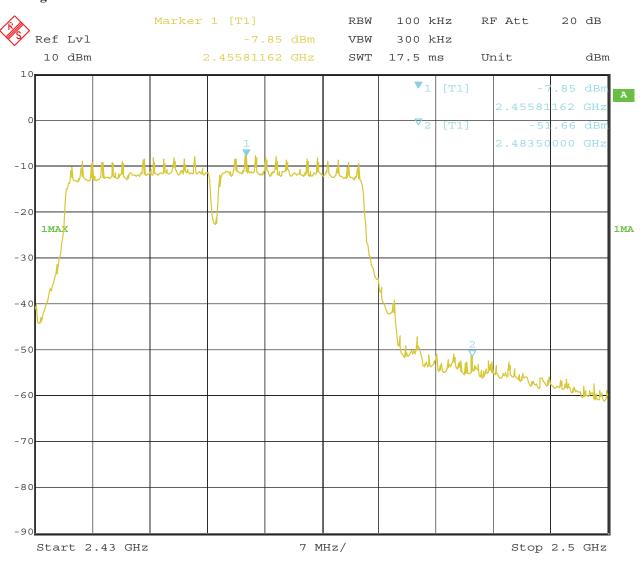


CH7 at 6.5Mbps

10.4 Band-edge and Restricted band Measurement

EUT	Mini PC		Model	HR-V03P
Mode	Keeping Transmitting		Input Voltage	120V~
Temperature	24 deg. C,		Humidity	56% RH
Test Result:	Pass		Detector	PK
2483.5	PK (dBµV/m)	61.2	T ::4	$74(dB\mu V/m)$
	AV (dBμV/m)	42.6	Limit	$54(dB\mu V/m)$

Test Figure:



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11.0 Antenna Requirement

11.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

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

11.2 Antenna Connected construction

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

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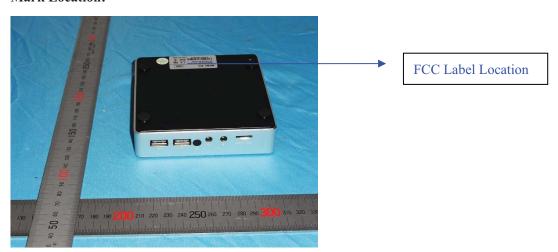
12.0 FCC ID Label

FCC ID: RH2-HR-V03P

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

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

Mark Location:



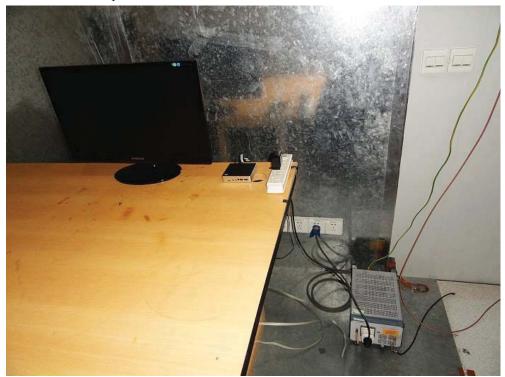
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13.0 Photo of testing

Conducted Emission Test Setup:



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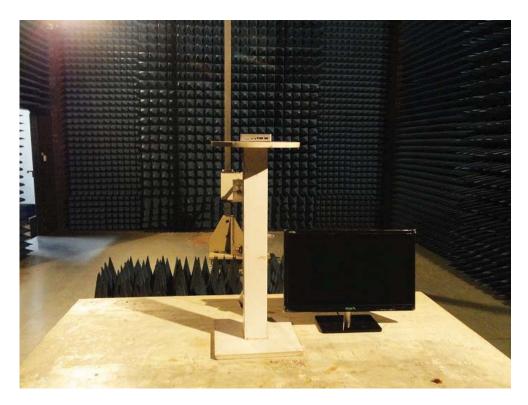
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Radiated Emission Test Setup:





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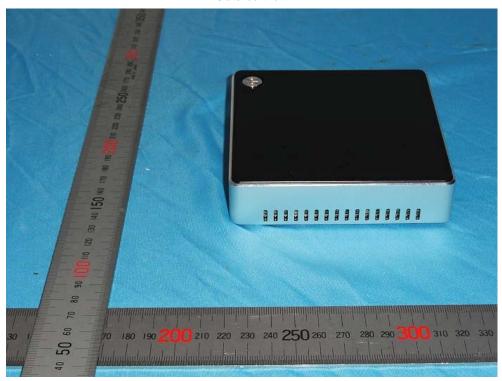
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Photographs - EUT

Outside view





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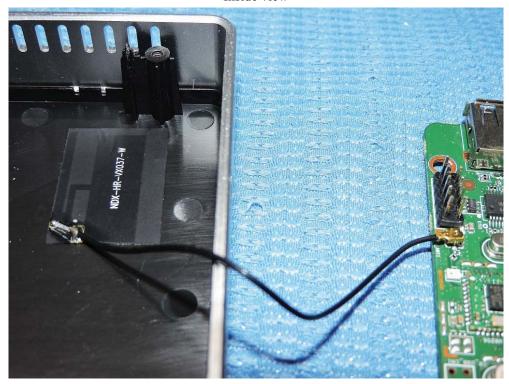
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Inside view



End of the report