



RF Test Report

Product Name: Wireless LAN Access Point

Product Model: AP5010DN-AGN

Report Number: SYBH(R)00706507EB-2

FCC ID: QISAP5010DNAGN

IC ID: 6369A-AP5010DNAGN

Reliability Laboratory of Huawei Technologies Co., Ltd.

Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.C

Tel: +86 755 28780808 Fax: +86 755 89652518



Notice

- 1. The laboratory has Passed the accreditation by China National Accreditation Service for Conformity Assessment (CNAS). The accreditation number is L0310.
- 2. The laboratory has Passed the accreditation by The American Association for Laboratory Accreditation (A2LA). The accreditation number is 2174.01.
- 3. The laboratory has been listed by the US Federal Communications Commission to perform electromagnetic emission measurements. The site recognition number is 97456.
- 4. The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 6369A-1 and 6369A-3.
- 5. The laboratory has been listed by the VCCI to perform EMC measurements. The accreditation numbers of test site No.1 are R-2364, G-415, C-2583, and T-256, and the accreditation numbers of test site No.2 are R-3760, G-485, C-4210 and T-1237.
- 6. The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
- 7. The test report is invalid if there is any evidence of erasure and/or falsification.
- 8. The test report is only valid for the test samples.
- 9. Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.

Applicant: Huawei Technologies Co., Ltd.

Address: Administration Building, Headquarters of Huawei Technologies Co., Ltd.,

Bantian, Longgang District, Shenzhen, 518129, P.R.C

Product Name: Wireless LAN Access Point

Product Model: AP5010DN-AGN

Version: V200R002

Date of Receipt Sample: 2012-08-13
Start Date of Test: 2012-08-17
End Date of Test: 2012-11-13

Test Result: Pass

Approved by Senior 2012-11-21 Zhang Xinghai Zhang Xinghai Date Name Signature

Prepared by: 2012-11-21 Zhang Weimin Date Name Signature



Modification Record

No.	Last Report No.	Modification Description





1	Gene	ral Information	6
	1.1	Applied Standard	
	1.2	Test Location	
	1.3	Test Environment Condition	6
2	Test S	Summary	7
	2.1	Non-measurement Technical Requirements	7
	2.2	Measurement Technical Requirements	
3	Descr	iption of the Equipment under Test (EUT)	9
	3.1	General Description	9
	3.2	EUT Identity	
	3.3	Technical Description	10
4	Gene	ral Test Conditions / Configurations	11
	4.1	Declaration	11
	4.2	Test Modes	12
	4.3	EUT Configurations	13
	4.4	Test Environments	15
	4.5	Test Setups	16
	4.6	Test Conditions	19
5	Main ⁻	Test Instruments	22

1 General Information

1.1 Applied Standard

Applied Rules: 47 CFR FCC Part 2, Subpart J (10-1-11 Edition)

47 CFR FCC Part 15, Subpart C (10-1-11 Edition)

IC RSS-Gen (Issue 3, December 2010) IC RSS-210 (Issue 8, December 2010)

Test Method: FCC KDB 558074 D01 DTS Meas Guidance v01

FCC KDB 558074 D01 DTS Meas Guidance v02

FCC KDB 662911 D01 Multiple Transmitter Output v01

1.2 Test Location

Test Location 1: Reliability Laboratory of Huawei Technologies Co., Ltd.

Address: Administration Building, Headquarters of Huawei Technologies Co., Ltd.,

Bantian, Longgang District, Shenzhen, 518129, P.R.C

1.3 Test Environment Condition

Report No: SYBH(R)00706507EB-2

Ambient Temperature: 19 to 25.5 °C

Ambient Relative Humidity: 44 to 71 %

Atmospheric Pressure: Not applicable



2 Test Summary

2.1 Non-measurement Technical Requirements

Description	FCC Rule	IC Rule	Requirements	Evidence	Verdict
	No.	No.			(NOTE)
Antenna Use	§15.203	RSS-Gen,	FCC&IC: Permanently attached	See user's	Comply
		7.1.2	antenna.	manual.	
			IC: User manual notices requied		
			(see detailed for RSS-Gen, 7.1.2) .		
User Manual		RSS-Gen,	User Manual Notice for	See user's	Comply
Notice for		7.1.3	Licence-Exempt Radio Apparatus is	manual.	
Licence-Exempt			required.		
Radio Apparatus					
Radio Apparatus	§15 subpart	RSS-Gen,	FCC: §15 subpart B.	See separate	Comply
Containing Digital	В	7.1.4,	IC: ICES-003.	test report	
Circuits		ICES-003		(EMC).	
Radiation	§15.247(i),	RSS-Gen,	General population/uncontrolled	See separate	Comply
Exposure	§1.1307(b),	5.6,	limit.	test report or	
Requirement	§2.1091,	RSS-102		declaration	
§2.1093				document	
				(MPE).	
NOTE: For the	verdict, the "N/A	" denotes "not	applicable", the "N/T" denotes "not test	ed".	



2.2 Measurement Technical Requirements

Test Item	FCC Part No.	IC Standard No.	Requirements	Test Result	Verdict (NOTE 2)
DTC (C dD) Dan dwidth	45.047(=)(0)	DCC 040	> 500 kH=	A m m m disc A	, ,
DTS (6 dB) Bandwidth	15.247(a)(2)	RSS-210,	≥ 500 kHz.	Appendix A	Pass
0 1 1 5 1 1 1 1		A8.2(a)	A1 11 12		
Occupied Bandwidth		RSS-210, 2.1	No limit.	Appendix B	Pass
		RSS-Gen, 4.6.1			
Maximum Peak	15.247(b)(3)	RSS-210,	For directional gain: < 30	Appendix C	Pass
Conducted Output Power		A8.4(4)	dBm – (G[dBi] – 6 [dB]),		
			peak; Otherwise: < 30		
			dBm, peak.		
Maximum Power Spectral	15.247(e)	RSS-210,	For directional gain: < 8	Appendix D	Pass
Density Level		A8.2(b)	dBm/3 kHz – (G[dBi] – 6		
			[dB]), peak. Otherwise: <		
			8 dBm/3 kHz, peak.		
Unwanted Emissions into	15.247(d)	RSS-210, A8.5	< -20 dBr/100 kHz if total	Appendix E	Pass
Non-Restricted			peak power ≤ power		
Frequency Bands			limit.		
Unwanted Emissions into	15.247(d)	RSS-210, A8.5	FCC Part 15.209 field	Appendix F.1	Pass
Restricted Frequency	15.209	RSS-210, 2.2	strength limit;		
Bands (Conducted)	(NOTE 1)	RSS-Gen, 7.2.2	RSS-Gen 7.2.5 field		
Unwanted Emissions into		RSS-Gen, 7.2.5	strength limit.	Appendix F.2	Pass
Restricted Frequency		(NOTE 1)			
Bands (Radiated)					
Receiver Spurious		RSS-210, 2.3	RSS-Gen 6.1 radiated	Appendix G	Pass
Emissions		RSS-Gen, 6.1	limit.		
AC Power Line	15.207	RSS-Gen, 7.2.4	FCC Part 15.207	Appendix H	Pass
Conducted Emissions			conducted limit;		
			RSS-Gen, 7.2.4		
			conducted limit.		
Photos of Test Setups				Appendix I	

NOTE 1: According to KDB 558074, antenna-port conducted measurements are acceptable as an alternative to radiated measurements for demonstrating compliance to the limits in the restricted frequency bands. If conducted measurements are performed, then proper impedance matching must be ensured and an additional radiated test for cabinet/case emissions will also be required.

NOTE 2: For the verdict, the "N/A" denotes "not applicable", the "N/T" denotes "not tested".



3 <u>Description of the Equipment under Test (EUT)</u>

3.1 General Description

The AP5010DN-AGN is a standard indoor dual-band 2x2 MIMO access point (AP) that supports 2.4 GHz and 5 GHz frequency bands. It complies with IEEE 802.11a/b/g/nsupports 2.4 GHz and 5 GHz frequency bands, and has enhanced coverage performance and protection capabilities. It supports wireless bridging, complies with IEEE 802.11a/b/g/n,connects a large number of users, and works as a Fit AP. The AP5010DN-AGN has the following advantages:

- High reliability
- High security
- Simple network deployment
- Automatic AC discovery and configuration
- Real-time management and maintenance

The AP5010DN-AGN is recommended for use in buildings with a simple structure, small area, a high density of users, and require a high capacity, for example, small-scale meeting rooms, bars, and entertainment places. The AP5010DN-AGN APs can be flexibly deployed in these places and work in both Fit AP and bridge mode

3.2 EUT Identity

NOTE: Unless otherwise noted in the report, the functional boards installed in the units shall be selected from the below list, but not means all the functional boards listed below shall be installed in one unit.

3.2.1 **Board**

Board					
Board Name	Hardware Version	Description			
H85D2TD1D200	VER.B	Broadband Control			

3.2.2 Sub-Assembly

Sub-Assembly							
Sub-Assembly	Sub-Assembly Model Manufacturer Description						
Name							





3.3 Technical Description

Characteristics	Description						
IEEE 802.11 WLAN	⊠ 802.11b (20 M	Hz channel bandwidth), 🛛 802	2.11g (20 MHz channel	bandwidth)			
Mode Supported	⊠ 802.11n (20 M	Hz channel bandwidth), 🗌 802	2.11n (40 MHz channel	bandwidth)			
TX/RX Operating	2400-2483.5	fc = 2407 MHz + N * 5 MHz, w	here:				
Range	MHz band	- fc = "Operating Frequer	ncy" in MHz,				
		- N = "Channel Number"	with the range from 1 to	o 11 for the 20 MHz			
		channel bandwidth.					
Data Rate	802.11b	1 Mbps, 2 Mbps, 5.5 Mbps, 11	Mbps				
	802.11g	6 Mbps, 9 Mbps, 12 Mbps, 18	Mbps, 24 Mbps, 36 Mb	ps, 48 Mbps, 54			
Mbps							
	802.11n (SISO)	MCS 0 to MCS 7					
	802.11n (MIMO) MCS 8 to MCS 15						
Modulation Type	DBPSK/DQPSK/C	DBPSK/DQPSK/CCK (DSSS), BPSK/QPSK/16QAM/64QAM (OFDM).					
Emission Designator	14M0G1D (for 802.11b mode), 16M5G7D (for 802.11g mod), 17M7G7D (for 802.11n mode)						
TX Power Control	Supported, □ Not Supported						
Standby Mode	☐ Supported, ⊠	Not Supported					
Equipment Type	☐ Stand-alone e	quipment, 🗌 Plug-in radio devi	ice, 🛛 Combined equi	ipment			
Antenna	Model/ID	27010871					
	Description	Isotropic					
		Antenna,2400-2500MHz&5100	0-5900MHz->4dBi+/-0.5	5&>5dBi+/-0.5,vertic			
		ally polarized, Isotropic, 1W, 0r, l	J.FL,Without Bracket				
	Туре	☐ External, ☐ Integrated					
	Ports		3				
	Smart System	SISO (for 802.11b/g/n),					
		☑ Diversity (for 802.11b/g) : 2	2 Tx & 2 Rx				
	Gain 4.5 dBi (per antenna port, max.)						
Remark When the EUT is put into service, the practical maximum antenna							
		should NOT exceed the value as described above.					
Power Supply	Туре	□ AC/DC Adapter	☑ PoE:	Other:			
	Model/ID	02220121					
	Specification	12 VDC	48 VDC				

4 General Test Conditions / Configurations

4.1 Declaration

4.1.1	Modular Approval
	Not applicable. The present document is based on the RF module installed within the product. The RF module was proved
	complying with relevant standard, see test report issued by with report number for the RF
	module with model number The present document provides additive assessments and/or
	measurements to prove that the whole product still complies with relevant standard.
	The differences and modifications between the "alone RF module" (RF_org) and the "RF module integrated
	into the host/combination product" (RF_new) are declared by the applicant and showed as below:
	All other components of the RF_org are not changed.
4.1.2	Permissive Change
\boxtimes	Not applicable.
	The present document/product is based on another report/product as reference, both of which utilize the
	similar or identical radio design, shielding, interface, physical layout and so on. The referred test report was
	proved complying with relevant standard, see test report issued by with report number for the
	product with model number The present document provides additive assessments and/or
	measurements, which are based on the referred test report, to prove the compliance with relevant standard.
	The differences and modifications between the referred test report/product (Product_ref) and the present test
	report/product (Product_cur) are declared by the applicant and showed as below:
	All other components of the Product_ref are not changed.
4.1.3	Multiple Models Applications
\boxtimes	The present document applies to single model number.
	The present document applies to several model numbers. The practical measurements are performed with the
	model number
	These model numbers utilize the similar radio design, shielding, interface, physical layout and so on. The
	differences and modifications between these model numbers are declared by the applicant and showed as
	below:
	All others between these model numbers are identical.



4.2 Test Modes

Report No: SYBH(R)00706507EB-2

NOTE: Typical working modes for each IEEE 802.11 mode are selected to perform tests.

Test Mode	Test Modes Description
11B/1	IEEE 802.11b with data rate of 1 Mbps using SISO mode.
11Bd/1	IEEE 802.11b with data rate of 1 Mbps using Diversity mode.
11G/6	IEEE 802.11g with data rate of 6 Mbps using SISO mode.
11Gd/6	IEEE 802.11g with data rate of 6 Mbps using Diversity mode.
11N20/0	IEEE 802.11n with data date of MCS0 and bandwidth of 20 MHz using SISO mode.
11N20m/8	IEEE 802.11n with data date of MCS8 and bandwidth of 20 MHz using MIMO mode.
11x_RX	Continues Receiving mode (if supported).



4.3 EUT Configurations

4.3.1 General Configurations

Configuration	Description
Test Antenna Ports	Until otherwise specified,
	- All TX tests are performed at all TX antenna ports of the EUT, and
	- All RX tests are performed at all RX antenna ports of the EUT.
Multiple RF Sources	Other than the tested RF source of the EUT, other RF source(s) are disabled or shutdown
	during measurements.

4.3.2 Customized Configurations

# EUT Conf.	Test Mode	RF	Antenna	TX Freq.	RX Freq.	Ch. BW	Power	Duty
		Ch.	Port	[MHz]	[MHz]	[MHz]	Conf., per	Cycle
							Port	
11B/1_B@1	11B/1	В	Ant 1	Ch No. 1 /		20	17	1
				2412 MHz				
11B/1_M@1	11B/1	М	Ant 1	Ch No. 6 /		20	17	1
				2437 MHz				
11B/1_T@1	11B/1	Т	Ant 1	Ch No. 11 /		20	17	1
				2462 MHz				
11Bd/1_B@1+2	11Bd/1	В	Ant 1 +	Ch No. 1 /		20	11	1
			Ant 2	2412 MHz				
11Bd/1_M@1+2	11Bd/1	М	Ant 1 +	Ch No. 6 /		20	11	1
			Ant 2	2437 MHz				
11Bd/1_T@1+2	11Bd/1	Т	Ant 1 +	Ch No. 11 /		20	11	1
			Ant 2	2462 MHz				
11G/6_B@1	11G/6	В	Ant 1	Ch No. 1 /		20	14	1
				2412 MHz				
11G/6_M@1	11G/6	М	Ant 1	Ch No. 6 /		20	16	1
				2437 MHz				
11G/6_T@1	11G/6	Т	Ant 1	Ch No. 11 /		20	14	1
				2462 MHz				
11Gd/6_B@1+2	11Gd/6	В	Ant 1 +	Ch No. 1 /		20	10	1
			Ant 2	2412 MHz				
11Gd/6_M@1+2	11Gd/6	М	Ant 1 +	Ch No. 6 /		20	13	1
			Ant 2	2437 MHz				
11Gd/6_T@1+2	11Gd/6	Т	Ant 1 +	Ch No. 11 /		20	10	1
			Ant 2	2462 MHz				
11N20/0_B@1	11N20/0	В	Ant 1	Ch No. 1 /		20	14	1
				2412 MHz				



# EUT Conf.	Test Mode	RF	Antenna	TX Freq.	RX Freq.	Ch. BW	Power	Duty
		Ch.	Port	[MHz]	[MHz]	[MHz]	Conf., per	Cycle
							Port	
11N20/0_M@1	11N20/0	М	Ant 1	Ch No. 6 /		20	16	1
				2437 MHz				
11N20/0_T@1	11N20/0	Т	Ant 1	Ch No. 11 /		20	14	1
				2462 MHz				
11N20m/8_B@1+2	11N20m/8	В	Ant 1 +	Ch No. 1 /		20	10	1
			Ant 2	2412 MHz				
11N20m/8_M@1+2	11N20m/8	М	Ant 1 +	Ch No. 6 /		20	13	1
			Ant 2	2437 MHz				
11N20m/8_T@1+2	11N20m/8	Т	Ant 1 +	Ch No. 11 /		20	10	1
			Ant 2	2462 MHz				
11x/RX	11x/RX		Ant 1 +					
			Ant 2					



4.4 Test Environments

Report No: SYBH(R)00706507EB-2

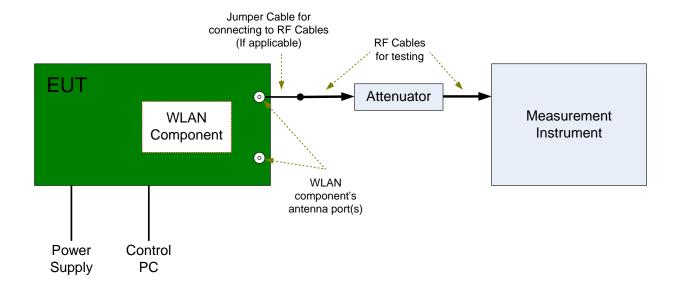
NOTE: The values used in the test report may be stringent than the declared.

Environment Parameter	Selected Values During Tests			
	Temperature	Voltage	Relative Humidity	
NTNV	Ambient	12.0 VDC	Ambient	



4.5.1 Test Setup 1

The WLAN component's antenna ports(s) of the EUT are connected to the measurement instrument per an appropriate attenuator. The EUT is controlled by PC/software to emit the specified signals for the purpose of measurements.

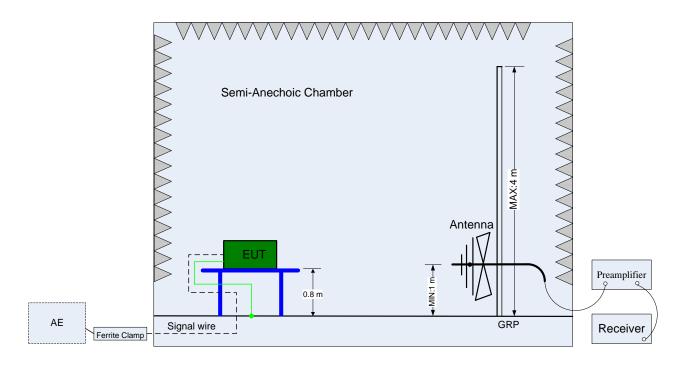


4.5.2 Test Setup 2

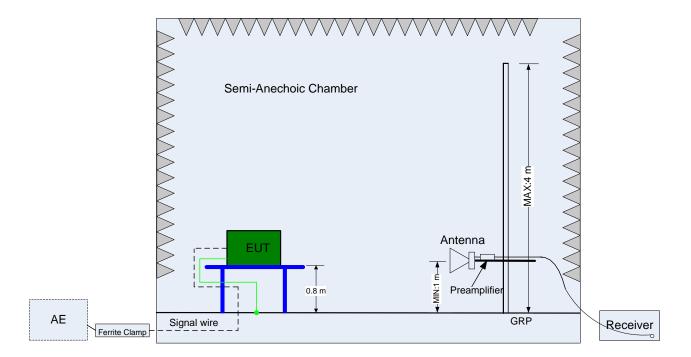
Report No: SYBH(R)00706507EB-2

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.4. The test distance is 3m.The setup is according to ANSI C63.4 and CAN/CSA-CEI/IEC CISPR 22.

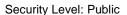
The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).



(Below 1 GHz)



(Above 1 GHz)

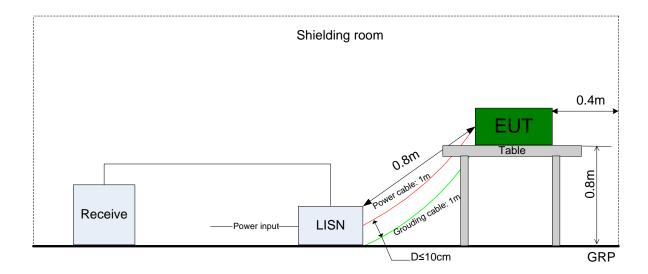




Report No: SYBH(R)00706507EB-2

The mains cable of the EUT (maybe per AC/DC Adapter) must be connected to LISN. The LISN shall be placed 0.8 m from the boundary of EUT and bonded to a ground reference plane for LISN mounted on top of the ground reference plane. This distance is between the closest points of the LISN and the EUT. All other units of the EUT and associated equipment shall be at least 0.8m from the LISN.

Ground connections, where required for safety purposes, shall be connected to the reference ground point of the LISN and, where not otherwise provided or specified by the manufacturer, shall be of same length as the mains cable and run parallel to the mains connection at a separation distance of not more than 0.1 m.





4.6 Test Conditions

Test Case	Test Conditions				
	Configuration Description				
DTS (6 dB)	Meas. Method	FCC KDB 558074 §7.1.1 Option 1.			
Bandwidth	Test Env.	NTNV			
	Test Setup	Test Setup 1			
	EUT Conf.	11B/1_B@1, 11B/1_M@1, 11B/1_T@1,			
		11Bd/1_B@1+2, 11Bd/1_M@1+2, 11Bd/1_T@1+2,			
		11G/6_B@1, 11G/6_M@1, 11G/6_T@1,			
		11Gd/6_B@1+2, 11Gd/6_M@1+2, 11Gd/6_T@1+2,			
		11N20/0_B@1, 11N20/0_M@1, 11N20/0_T@1,			
		11N20m/8_B@1+2, 11N20m/8_M@1+2, 11N20m/8_T@1+2.			
Occupied	Meas. Method	RSS-Gen, 4.6.1.			
Bandwidth	Test Env.	NTNV			
	Test Setup	Test Setup 1			
	EUT Conf.	11B/1_B@1, 11B/1_M@1, 11B/1_T@1,			
		11Bd/1_B@1+2, 11Bd/1_M@1+2, 11Bd/1_T@1+2,			
		11G/6_B@1, 11G/6_M@1, 11G/6_T@1,			
		11Gd/6_B@1+2, 11Gd/6_M@1+2, 11Gd/6_T@1+2,			
		11N20/0_B@1, 11N20/0_M@1, 11N20/0_T@1,			
		11N20m/8_B@1+2, 11N20m/8_M@1+2, 11N20m/8_T@1+2.			
Maximum Peak	Meas. Method	FCC KDB 558074 §7.2.1.2 Option 2 (integrated band power method).			
Conducted	Test Env.	NTNV			
Output Power	Test Setup	Test Setup 1			
	EUT Conf.	11B/1_B@1, 11B/1_M@1, 11B/1_T@1,			
		11Bd/1_B@1+2, 11Bd/1_M@1+2, 11Bd/1_T@1+2,			
		11G/6_B@1, 11G/6_M@1, 11G/6_T@1,			
		11Gd/6_B@1+2, 11Gd/6_M@1+2, 11Gd/6_T@1+2,			
		11N20/0_B@1, 11N20/0_M@1, 11N20/0_T@1,			
		11N20m/8_B@1+2, 11N20m/8_M@1+2, 11N20m/8_T@1+2.			
Maximum	Meas. Method	FCC KDB 558074 §7.3.1 Option 1 (peak PSD).			
Power Spectral	Test Env.	NTNV			
Density Level	Test Setup	Test Setup 1			
	EUT Conf.	11B/1_B@1, 11B/1_M@1, 11B/1_T@1,			
		11Bd/1_B@1+2, 11Bd/1_M@1+2, 11Bd/1_T@1+2,			
		11G/6_B@1, 11G/6_M@1, 11G/6_T@1,			
		11Gd/6_B@1+2, 11Gd/6_M@1+2, 11Gd/6_T@1+2,			
		11N20/0_B@1, 11N20/0_M@1, 11N20/0_T@1,			
		11N20m/8_B@1+2, 11N20m/8_M@1+2, 11N20m/8_T@1+2.			
Unwanted	Meas. Method	FCC KDB 558074 §7.4.1, use Peak PSD.			
Emissions into	Test Env.	NTNV			



Test Case	Test Conditions				
	Configuration	Description			
Non-Restricted	Test Setup	Test Setup 1			
Frequency	EUT Conf.	11B/1_B@1, 11B/1_M@1, 11B/1_T@1,			
Bands		11Bd/1_B@1+2, 11Bd/1_M@1+2, 11Bd/1_T@1+2,			
		11G/6_B@1, 11G/6_M@1, 11G/6_T@1,			
		11Gd/6_B@1+2, 11Gd/6_M@1+2, 11Gd/6_T@1+2,			
		11N20/0_B@1, 11N20/0_M@1, 11N20/0_T@1,			
		11N20m/8_B@1+2, 11N20m/8_M@1+2, 11N20m/8_T@1+2.			
Unwanted	Meas. Method	FCC KDB 558074	§7.4.2, Conducted (antenna-port).		
Emissions into	Test Env.	NTNV			
Restricted	Test Setup	Test Setup 1			
Frequency	EUT Conf.	11B/1_B@1, 11B/1_M@1, 11B/1_T@1,			
Bands		11Bd/1_B@1+2, 11Bd/1_M@1+2, 11Bd/1_T@1+2,			
(Conducted)		11G/6_B@1, 11G/	6_M@1, 11G/6_T@1,		
		11Gd/6_B@1+2, 11Gd/6_M@1+2, 11Gd/6_T@1+2,			
		11N20/0_B@1, 11	N20/0_M@1, 11N20/0_T@1,		
		11N20m/8_B@1+2, 11N20m/8_M@1+2, 11N20m/8_T@1+2.			
Unwanted	Meas. Method	FCC KDB 558074 §7.4.2, Radiated (cabinet/case emissions with impedance			
Emissions into		matching for antenna-port).			
Restricted		(1) 30 MHz to 1 GH	tz:		
Frequency		Pre: RBW =	100 kHz; VBW = 300 kHz; Det. = Peak.		
Bands		Final: RBW = 120 kHz; Det. = CISPR Quasi-Peak.			
(Radiated)		(2) 1 GHz to 26.5 GHz:			
		Average: RBW = 1 MHz; VBW = 3 MHz; Det. = RMS; SPAN / Sweep-point ≤			
		RBW / 2; Sweep-time ≥ 10 * Sweep-points * Ts (Ts - transmission			
		symbol period); Trace = Single.			
		Peak: RBW = 1 MHz; VBW = 3 MHz; Det. = Peak; Sweep-time = Auto;			
		Trace =	Max Hold * 100.		
	Test Env.	NTNV			
	Test Setup	Test Setup 2			
	EUT Setup	☐ Flatwise, ☐ Upright, ☐ Hung			
	EUT Conf.	30 MHz -1 GHz	Worst Case (11B/1_T@1).		
		1-3 GHz	Worse Case (11B/1_B@1),		
			Worse Case (11B/1_M@1),		
			Worse Case (11B/1_T@1),		
			Worse Case (11Bd/1_B@1+2),		
			Worse Case (11Bd/1_M@1+2),		
			Worse Case (11Bd/1_T@1+2),		
			Worse Case (11N20/0_B@1),		
			Worse Case (11N20/0_M@1)		
			Worse Case (11N20/0_T@1),		
			Worse Case (11N20m/8_B@1+2),		
			Worse Case (11N20m/8_M@1+2),		

Test Case	Test Conditions	ns			
	Configuration	Description			
				Worse Case (11N20m/8_T@1+2).	
		3-18 GHz		Worst Case (11B/1_T@1).	
		18-26.5 G	Hz	Worst Case (11B/1_M@1).	
Receiver	Meas. Method	☐ Antenna-conducted, ☒ Radiated.			
Spurious		NOTE: If the receiver has a detachable antenna of known impedance,			
Emissions		antenna conducted spurious emissions measurement is permitted			
			as an a	alternative to radiated measurement. However, the radiated	
			method	d is recommended. The antenna conducted test shall be	
			performed with the antenna disconnected and the receiver antenna		
			terminals connected to a measuring instrument having equal		
		impedance to that specified for the antenna.			
		(1) 30 MHz to 1 GHz:			
		Pre: RBW = 100 kHz; VBW = 300 kHz; Det. = Peak.			
		Final: RBW = 120 kHz; Det. = CISPR Quasi-Peak.			
		(2) 1 GHz to 8 GHz:			
		Pre: RBW = 1 MHz; VBW = 3 MHz; Det. = Peak.			
		Final:	nal: RBW = 1 MHz; Det. = Average.		
	Test Env.	NTNV			
	Test Setup	Test Setu	p 2		
	EUT Setup	Only for radiated: ⊠ Flatwise, □ Upright, □ Hung			
	EUT Conf.	11x_RX			
AC Power Line	Meas. Method	AC mains conducted.			
Conducted		Pre: RBW = 10 kHz; Det. = Peak.			
Emissions		Final:	RBW =	9 kHz; Det. = CISPR Quasi-Peak & Average.	
	Test Env.	NTNV Test Setup 3 11B/1_T@1.			
	Test Setup				
	EUT Conf.				



5 Main Test Instruments

Report No: SYBH(R)00706507EB-2

NOTE: Unless otherwise specified, the calibration intervals for test instruments were Annual (per year). The other intervals, if applicable, are marked with (##y), which denotes ## years calibration interval.

Equipment Name	Manufacturer	Model	Serial Number	Cal. Due	
Test Setup 1					
Spectrum Analyzer	R&S	E4440A	MY49420179	2013-05-13	
Test Setup 2					
EMI Test Receiver	R&S	ESU40	100144	2013-05-13	
Bilog Antenna (30M-1GHz)	Schaffner	CBL 6112B	2536	2013-01-12	
Horn Antenna (1G-18GHz)	R&S	HF906	359287/005	2014-03-23	
				(2y)	
Horn Antenna (18G-16.5GHz)	ETS	3160-9	053215	2013-02-01	
Test Setup 3					
EMI Test Receiver	R&S	ESCI	101019	2013-2-26	
Artificial Mains Network	R&S	ENV4200	100141	2012-12-19	

END