

RADIO TEST REPORT

Report No.: BST1707752820001Y-ER-1

For

Shenzhen Gaitewan Technology Co., Ltd..

Product Name:	Quadcopter
Model :	M4
Series Model:	M1,M2,M3,M5,M6,M7,M8,M9,M10,D1,D2,D3,D4,D5
FCC ID:	2AIQU-M4
Prepared By:	Shenzhen BST Technology Co., Ltd.
	Building No.23-24, Zhiheng Industrial Park, Guankouer Road, Nantou, Nanshan District, Shenzhen, Guangdong, China
Test Date:	Jun 10-22, 2017
Date of Report :	Jun22, 2017
Test Result	pass
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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: Shenzhen Gaitewan Technology Co., Ltd..

Address of applicant: 501B, Bike Technology Mansion, No. 9, Keyan Road, H

igh-tech Park, Yuehai Str. Nanshan Dist, Shenzhen,

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Guangdong518000 CHINA

Manufacturer: Shenzhen Gaitewan Technology Co., Ltd.

Address of manufacturer: 501B, Bike Technology Mansion, No. 9, Keyan Road, H

igh-tech Park, Yuehai Str. Nanshan Dist, Shenzhen,

Guangdong 518000 CHINA

General Description of EUT	
Product Name:	Quadcopter
Trade Name:	METAKOO
Model No.:	M4
Adding Model(s):	M1,M2,M3,M5,M6,M7,M8,M9,M10,D1, D2,D3,D4,D5;
Rated Voltage:	DC 3.7V
Battery Capacity:	950mah
Power Adapter Model:	N/A
Software Version:	V1.0
Hardware Version:	V2.0

Note: The test data is gathered from a production sample provided by the manufacturer. The appearance of others models listed in the report is different from main-test model M4, but the circuit and the electronic construction do not change, declared by the manufacturer.

Technical Characteristics of EUT	
Support Standards:	802.11b, 802.11g, 802.11n
Frequency Range:	2412-2462MHz for 802.11b/g/n(HT20)
RF Output Power:	15.23dBm (Conducted)
Type of Modulation:	CCK, OFDM, QPSK, BPSK, 16QAM, 64QAM
Data Rate:	1-11Mbps, 6-54Mbps, up to 150Mbps
Quantity of Channels:	11 for 802.11b/g/n(HT20)



Channel Separation:	5MHz
Type of Antenna:	Internal
Antenna Gain:	1dBi
Lowest Internal Frequency	32.768kHz

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1.2 Test Standards

The following report is prepared on behalf of the Smart Pet Feeder in accordance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 of the Federal Communication Commissions rules.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard for Testing Unlicensed Wireless Devices, and ANSI C63.4-2014, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz. The measurement guide KDB 558074 D01 v03r05 for digital transmission systems shall be performed also.



1.4 Test Facility

Shenzhen Asia Test Technology Co.,Ltd.
7 / F, Xinwei Building, Gushu Village, Xixiang Town, Baoan District, Shenzhen, China FCC Registration No.: 348715; IC Registration No.: 12198A

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1.5 EUT Setup and Test Mode

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. All testing shall be performed under maximum output power condition, and to measure its highest possible emissions level, more detailed description as follows:

Test Mode List		
Test Mode	Description	Remark
TM1	802.11b	2412MHz, 2437MHz, 2462MHz
TM2	802.11g	2412MHz, 2437MHz, 2462MHz
TM3	802.11n-HT20	2412MHz, 2437MHz, 2462MHz

Note: All test modes (different data rate and different modulation) are performed, but only the worst case is recorded in this report.

Accessories Equipmen	t List and Details		
Description	Manufacturer	Model No.	Serial Number
/	/	/	/
Accessories Cable List	and Details		
Cable Description	Length (m)	Shielded/Unshielded	With Core/Without Core
/	/	/	/
EUT Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With Core/Without Core
/	/	/	/



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1.6 Measurement Uncertainty

Measurement uncertainty		
Parameter	Conditions	Uncertainty
RF Output Power	Conducted	± 0.42 dB
Occupied Bandwidth	Conducted	±1.5%
Power Spectral Density	Conducted	±1.8dB
Conducted Spurious Emission	Conducted	±2.17dB
Conducted Emissions	Conducted	±2.88dB
Transmitter Spurious Emissions	Radiated	±5.1dB

Description	Manufacturer	Model	Serial No.	Cal Date	Due Date
Spectrum Analyzer	Agilent	E4407B	MY41440400	2017-06-04	2018-06-03
Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2017-06-04	2018-06-03
EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2017-06-04	2018-06-03
Amplifier	Agilent	8447F	3113A06717	2017-06-04	2018-06-03
Amplifier	C&D	PAP-1G18	2002	2017-06-04	2018-06-03
Broadband Antenna	Schwarz beck	VULB9163	9163-333	2017-06-04	2018-06-03
Horn Antenna	ETS	3117	00086197	2017-06-04	2018-06-03
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170582	2017-06-04	2018-06-03
Loop Antenna	Schwarz beck	FMZB 1516	9773	2017-06-04	2018-06-03
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2017-06-04	2018-06-03
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2017-06-04	2018-06-03
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2017-06-04	2018-06-03



2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test Item	Result
§ 2.1093	RF Exposure	Compliant
§ 15.203; § 15.247(b)(4)(i)	Antenna Requirement	Compliant
§15.205	Restricted Band of Operation	Compliant
§ 15.207(a)	Conducted Emission	Compliant
§ 15.247(e)	Power Spectral Density	Compliant
§ 15.247(a)(2)	6 dB Bandwidth	Compliant
§ 15.247(b)(3)	RF Output Power	Compliant
§ 15.209(a)	Radiated Emission	Compliant
§ 15.247(d)	Band Edge (Out of Band Emissions)	Compliant

N/A: not applicable



3. RF Exposure

3.1 Standard Applicable

According to § 1.1307 and § 2.1093, the portable transmitter must comply the RF exposure requirements.

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3.2 Test Result

This product complied with the requirement of the RF exposure, please see the RF Exposure Report.



4. Antenna Requirement

4.1 Standard Applicable

According to FCC Part 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

4.2 Evaluation Information

This product has a internal antenna attachment the PCB, fulfill the requirement of this section.



5. Power Spectral Density

5.1 Standard Applicable

According to 15.247(a)(1)(iii), For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

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5.2 Test Procedure

According to the KDB 558074 D01 v03r05, such specifications require that the same method as used to determine the conducted output power shall also be used to determine the power spectral density. The test method of power spectral density as below:

- (g) Set instrument center frequency to DTS channel center frequency.
- (h) Set span to at least 1.5 times the OBW.
- (i) Set RBW to: $3 \text{ kHz} \le \text{RBW} \le 100 \text{ kHz}$.
- (j) Set VBW ≥ 3 x RBW.
- (k) Detector = power averaging (RMS) or sample detector (when RMS not available).
- (1) Ensure that the number of measurement points in the sweep $\ge 2 \times \text{span/RBW}$.
- (m) Sweep time = auto couple.
- (n) Employ trace averaging (RMS) mode over a minimum of 100 traces.
- (o) Use the peak marker function to determine the maximum amplitude level.
- (p) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat (note that this may require zooming in on the emission of interest and reducing the span in order to meet the minimum measurement point requirement as the RBW is reduced).



5.3 Environmental Conditions

Temperature:	21 ℃
Relative Humidity:	50%
ATM Pressure:	101.2

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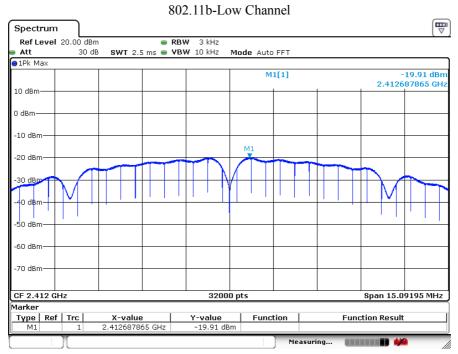
5.4 Summary of Test Results/Plots

Test Mode	Test Channel MHz	Power Spectral Density dBm/3kHz	Limit dBm/3kHz	
	2412	-19.91	8	
802.11b	2437	-19.56	8	
	2462	-19.34	8	
	2412	-22.02	8	
802.11g	2437	-21.65	8	
	2462	2462 -20.9		8
	2412	-21.42	8	
802.11n HT20	2437	-21.07	8	
	2462	-20.81	8	

Please refer to the following test plots:

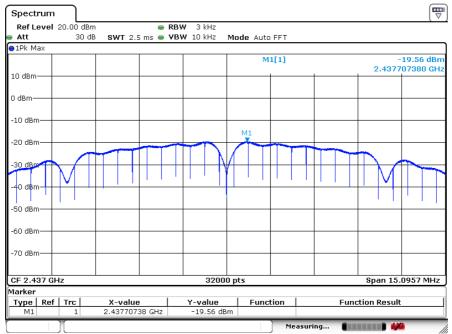


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Date: 16 JUN 2017 17:54:10

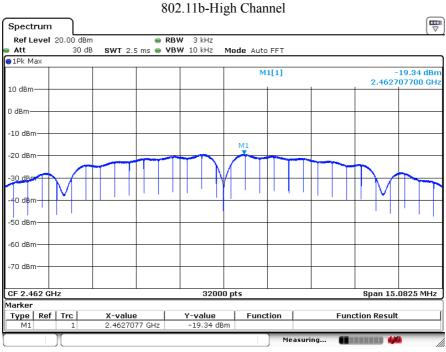
802.11b-Middle Channel



Date: 16 JUN 2017 17:54:41



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Date: 16 JUN 2017 17:55:15

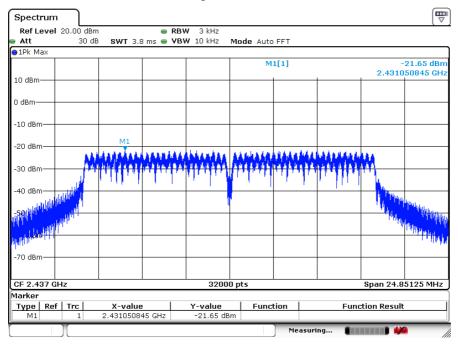
802.11g-Low Channel Spectrum Ref Level 20.00 dBm VBW 10 kHz Att 30 dB ●1Pk Max -22.02 dBm 2.406051375 GHz M1[1] 10 dBm -70 dBm Span 24.85875 MHz CF 2.412 GHz 32000 pts Type Ref Trc X-value 2.406051375 GHz Y-value -22.02 dBm Function **Function Result**

Date: 16 JUN 2017 17:57:09



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802.11g-Middle Channe



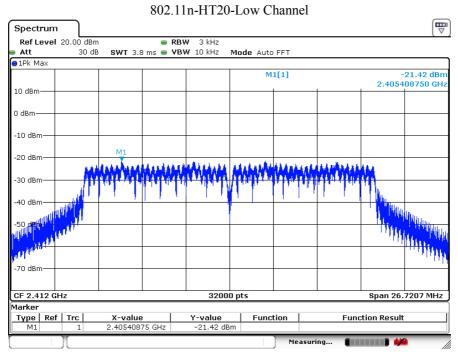
Date: 16 JUN 2017 17:56:41

802.11g-High Channel Spectrum Ref Level 20.00 dBm RBW 3 kHz 30 dB ■ VBW 10 kHz Mode Auto FFT Att ●1Pk Max M1[1] -20.97 dBn 2.456049185 GH 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm Span 24.84195 MHz CF 2.462 GHz 32000 pts Marker Type | Ref | Trc X-value 2.456049185 GHz Y-value Function **Function Result** -20.97 dBm

Date: 16 JUN 2017 17:56:17

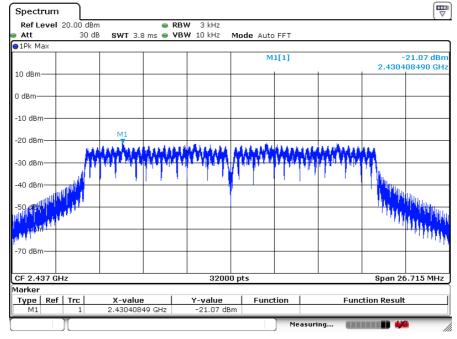


Report No.: BST1707752820001Y-ER-1



Date: 16 JUN 2017 17:57:46

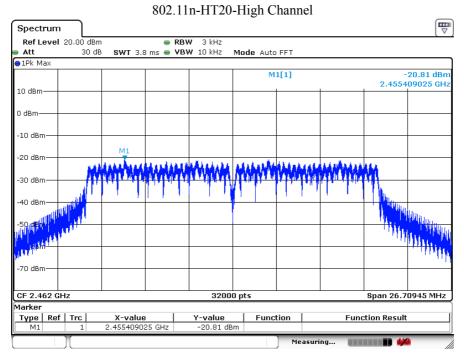
802.11n-HT20-Middle Channel



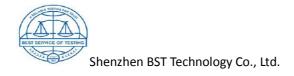
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6. 6dB Bandwidth

6.1 Standard Applicable

According to 15.247(a)(2). Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

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6.2 Test Procedure

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) $\geq 3 \times RBW$.
- c) Detector = Peak.
- d) Trace mode = \max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.

Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

6.3 Environmental Conditions

Temperature:	21 ℃
Relative Humidity:	50%
ATM Pressure:	101.2

6.4 Summary of Test Results/Plots



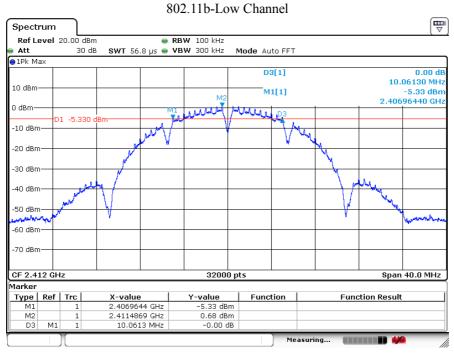
Report No.: BST1707752820001Y-ER-1

Test Mode	Test Channel	6 dB Bandwidth	Limit
	MHz	MHz	kHz
	2412	10.0613	≥500
802.11b	2437	10.0638	≥500
	2462	10.0550	≥500
	2412	16.5725	≥500
802.11g	2437	16.5675	≥500
	2462	16.5613	≥500
	2412	17.8138	≥500
802.11n-HT20	2437	17.8100	≥500
	2462	17.8063	≥500

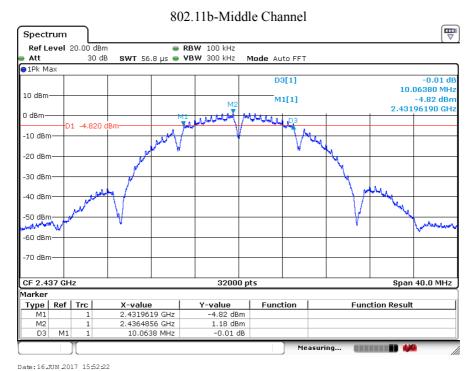
Please refer to the following test plots:



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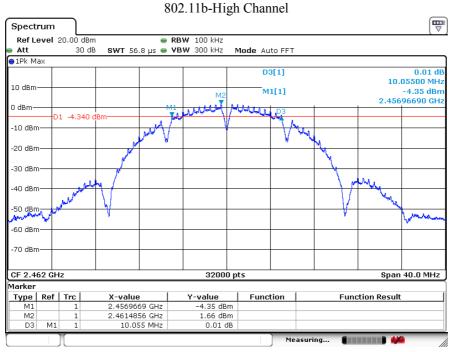


Date: 16.JUN 2017 15:51:03





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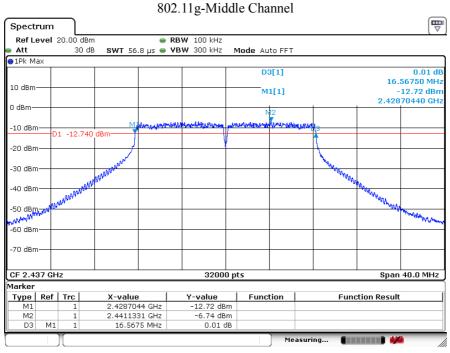
Date: 16 JUN 2017 15:53:19

802.11g-Low Channel Spectrum Ref Level 20.00 dBm VBW 300 kHz Att 30 dB Mode Auto FFT ●1Pk Max D3[1] 0.02 di 16.57250 MH 10 dBm M1[1] -13.17 dBm 2.40370190 GH -10 dBm D1 -13.170 -20 dBm -30 dBm -50 dBm--60 dBm -70 dBm Span 40.0 MHz CF 2.412 GHz 32000 pts Marker **Y-value** -13.17 dBm -7.17 dBm 0.02 dB **X-value** 2.4037019 GHz Ref | Tro Function **Function Result** M2 2.4161356 GHz 16.5725 MHz DЗ

Date:16.JUN 2017 15:57:56



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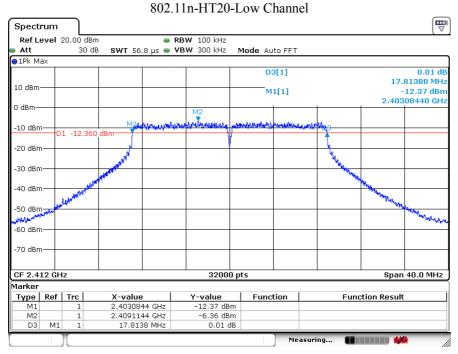
Date: 16 JUN 2017 15:56:42



Date: 16 JUN 2017 15:54:40

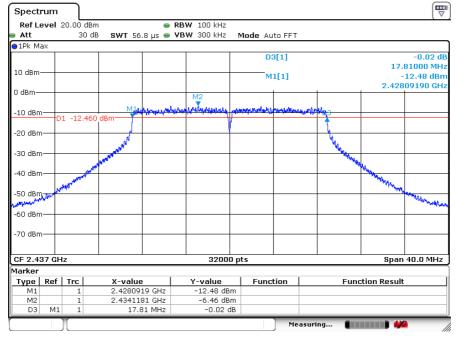


Report No.: BST1707752820001Y-ER-1



Date: 16 JUN 2017 15:59:38

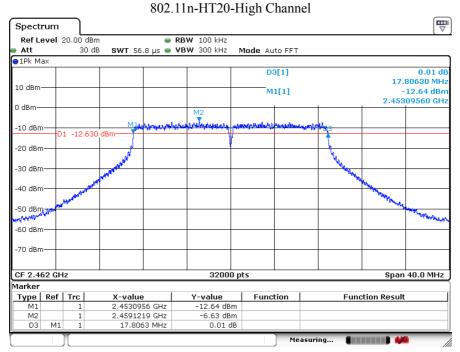
802.11n-HT20-Middle Channel



Date:16.JUN 2017 16:01:09



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Date: 16.JUN 2017 16:02:51



7. RF Output Power

7.1 Standard Applicable

According to 15.247(b)(3). For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

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7.2 Test Procedure

According to the KDB-558074 D01 v03r05, 9.2.2.2, when this option is exercised, the measured power is to be referenced to the OBW rather than the DTS bandwidth

- a) Set span to at least 1.5 times the OBW.
- b) Set RBW = 1-5% of the OBW, not to exceed 1 MHz.
- c) Set VBW $\geq 3 \times RBW$.
- d) Number of points in sweep $\geq 2 \times \text{span} / \text{RBW}$. (This gives bin-to-bin spacing $\leq \text{RBW}/2$, so that narrowband signals are not lost between frequency bins.)
- e) Sweep time = auto.
- f) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
- g) If transmit duty cycle < 98 %, use a sweep trigger with the level set to enable triggering only on full power pulses. The transmitter shall operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle \geq 98 %, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run".
- h) Trace average at least 100 traces in power averaging (i.e., RMS) mode.
- i) Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function, with band limits set equal to the OBW band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.



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7.3 Environmental Conditions

Temperature:	21 ℃
Relative Humidity:	50%
ATM Pressure:	101.2

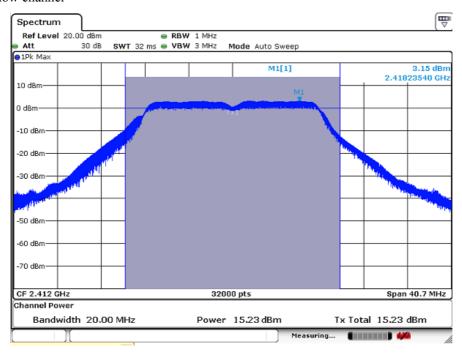
7.4 Summary of Test Results/Plots

Test Mode	Frequency	Reading	Output Power	Limit
Test Wlode	MHz	dBm	mW	mW
	2412	15.23	33.34	1000
802.11b_11Mbps	2437	14.75	29.85	1000
	2462	14.86	30.62	1000
	2412	14.97	31.41	1000
802.11g_54Mbps	2437	14.86	30.62	1000
	2462	14.29	26.85	1000
	2412	15.07	32.14	1000
802.11n HT20_MCS7	2437	14.96	31.33	1000
	2462	14.91	30.97	1000

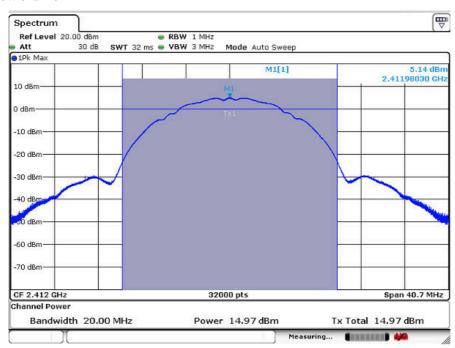


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802.11b low channel



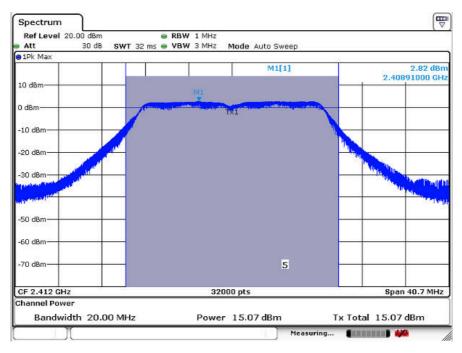
802.11g low channel





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802.11n low channel



8. Field Strength of Spurious Emissions

8.1 Standard Applicable

According to §15.247(d), in any 100 kHz bandwidth outside the frequency band in which the spread

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spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is

produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within

the band that contains the highest level of the desired power, based on either an RF conducted or a

radiated measurement, provided the transmitter demonstrates compliance with the peak conducted

power limits. If the transmitter complies with the conducted power limits based on the use of RMS

averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation

required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits

specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands,

as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

The emission limit in this paragraph is based on measurement instrumentation employing an average

detector. The provisions in §15.35 for limiting peak emissions apply. Spurious Radiated Emissions

measurements starting below or at the lowest crystal frequency.

8.2 Test Procedure

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification

used was with the FCC Part 15.205 15.247(a) and FCC Part 15.209 Limit.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in

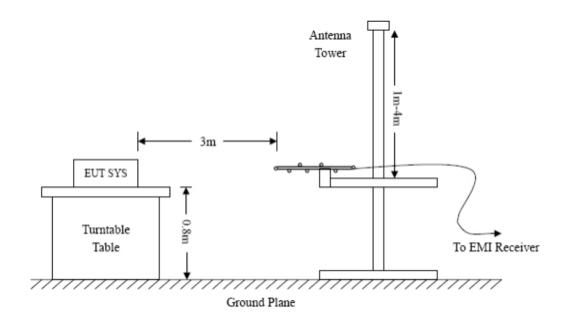
the middle. The spacing between the peripherals was 10 cm.

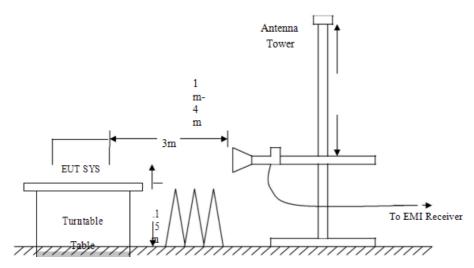
Add:BuildingNo.23-24,ZhihengndustrialPark,GuankouerRoad,Nantou,NanshanDistrict,Shenzhen,Guangdong,ChinaCertificateSearch:http://www.bst-lab.com,Tel:400-882-9628, 8009990305

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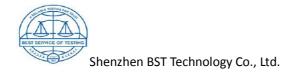




Ground Plane

Frequency:9kHz-30MHz	Frequency:30MHz-1GHz	Frequency: Above 1GHz
RBW=10KHz,	RBW=120KHz,	RBW=1MHz,
VBW =30KHz	VBW=300KHz	VBW=3MHz(Peak), 10Hz(AV)
Sweep time= Auto	Sweep time= Auto	Sweep time= Auto
Trace = max hold	Trace = max hold	Trace = \max hold
Detector function = peak	Detector function = peak, QP	Detector function = peak, AV

Add:BuildingNo.23-24,ZhihengndustrialPark,GuankouerRoad,Nantou,NanshanDistrict,Shenzhen,Guangdong,ChinaCertificateSearch:http://www.bst-lab.com,Tel:400-882-9628, 8009990305



8.3 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

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The "Margin" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of $-6dB\mu V$ means the emission is $6dB\mu V$ below the maximum limit. The equation for margin calculation is as follows:

8.4 Environmental Conditions

Temperature:	21℃
Relative Humidity:	50%
ATM Pressure:	101.2

8.5 Summary of Test Results/Plots

According to the data below, the FCC Part 15.205, 15.209 and 15.247 standards, and had the worst cases:

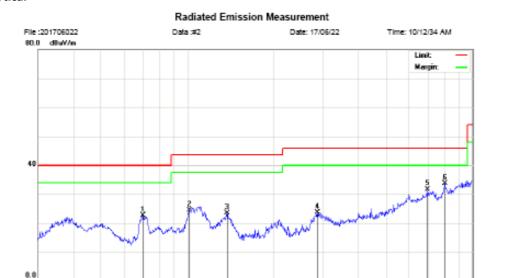


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Plot of Radiated Emissions Test Data (30MHz to 1GHz)

70 80

Vertical



Limit: FCC_PART15_B_03m_QP_

Note:

Site

M/N: F1 WIFI Mode:

Polarization: Vertical Power: AC 120V/60Hz Distance: 3m

Humidity:

600 700

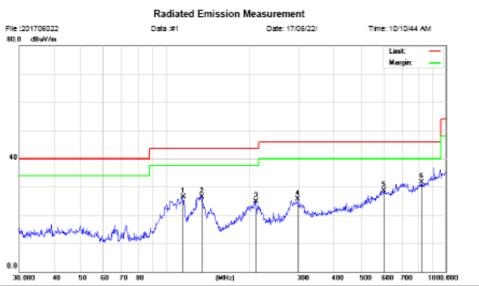
1000.000

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBu///m	dBuV/m	dB	Detector	cm	degree	Comment
1		70.0903	41.63	-19.01	22.62	40.00	-17.38	QP			
2		101.6443	38.31	-13.86	24.45	43.50	-19.05	QP			
3		137.9028	38.33	-14.83	23.50	43.50	-20.00	QP			
4		285.9778	34.41	-10.73	23.68	46.00	-22.32	QP			
5		696.8567	32.19	-0.51	31.68	46.00	-14.32	QP			
6	т	798.9797	30.36	3.44	33.80	46.00	-12.20	QP			



Report No.: BST1707752820001Y-ER-1

Horizontal



Site Limit: FCC_PART15_B_03m_QP_

EUT:

M/N: F1 WIFI

Mode: Note:

Polarizati	on: Horizontal	Temperature:	25
Dames	AC 4300///CDH=	Humidike 5	n ec

Distance: 3m

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBu/V/m	dBuV/m	dB	Detector	cm	degree	Comment
1		115.3205	41.65	-15.13	26.52	43.50	-16.98	QP			
2		135.0319	41.32	-14.72	26.60	43.50	-16.90	QP			
3		210.0482	41.51	-16.66	24.85	43.50	-18.65	QP			
4		295.1469	35.98	-10.27	25.71	46.00	-20.29	QP			
5		001.4205	30.50	-1.74	28.76	46.00	-17.24	QP			
6	т	818.8341	31.08	0.67	31.75	46.00	-14.25	QP			

Spurious Emissions Above 1GHz



Report No.: BST1707752820001Y-ER-1

Test Mode: 802.11b (worst case)

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
			Low Chann	el-2412MHz			
4824.000	60.83	-3.77	57.06	74	-16.94	Н	PK
4824.000	40.83	-3.77	37.06	54	-16.94	Н	AV
7236.000	59.92	1.19	61.11	74	-12.89	Н	PK
7236.000	47.19	1.19	48.38	54	-5.62	Н	AV
4824.000	59.92	-3.77	56.15	74	-17.85	V	PK
4824.000	45.38	-3.77	41.61	54	-12.39	V	AV
7236.000	60.83	1.19	62.02	74	-11.98	V	PK
7236.000	47.53	1.19	48.72	54	-5.28	V	AV
			Middle Chan	nel-2437MHz			
4874.000	56.28	-3.65	52.63	74	-21.37	Н	PK
4874.000	48.1	-3.65	44.45	54	-9.55	Н	AV
7311.000	56.28	1.56	57.84	74	-16.16	Н	PK
7311.000	41.74	1.56	43.3	54	-10.7	Н	AV
4874.000	57.19	-3.65	53.54	74	-20.46	V	PK
4874.000	47.19	-3.65	43.54	54	-10.46	V	AV
7311.000	46.98	-3.63	43.35	74	-30.65	V	PK
7311.000	46.28	1.56	47.84	54	-6.16	V	AV
			High Chann	el-2462MHz			
4924.000	54.47	-3.54	50.93	74	-23.07	Н	PK
4924.000	46.28	-3.54	42.74	54	-11.26	Н	AV
7386.000	53.98	1.67	55.65	74	-18.35	Н	PK
7386.000	42.16	1.67	43.83	54	-10.17	Н	AV
4924.000	61.25	-3.58	57.67	74	-16.33	V	PK
4924.000	46.7	-3.58	43.12	54	-10.88	V	AV
7386.000	57.61	1.67	59.28	74	-14.72	V	PK
7386.000	43.07	1.67	44.74	54	-9.26	V	AV

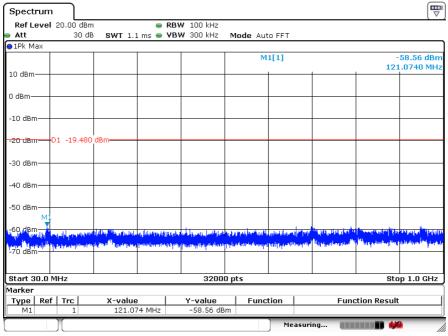
Note: Testing is carried out with frequency rang 9kHz to the tenth harmonics, other than listed in the table above are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.



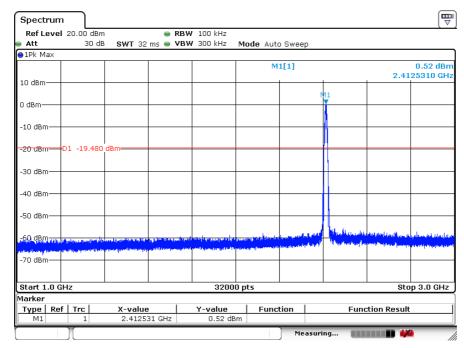
Report No.: BST1707752820001Y-ER-1

Spurious(conducted)

802.11b-Lowest



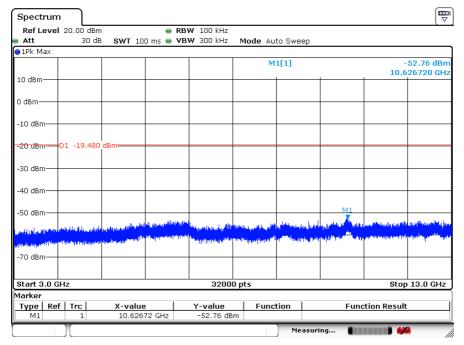
Date: 16 JUN 2017 17:31:34



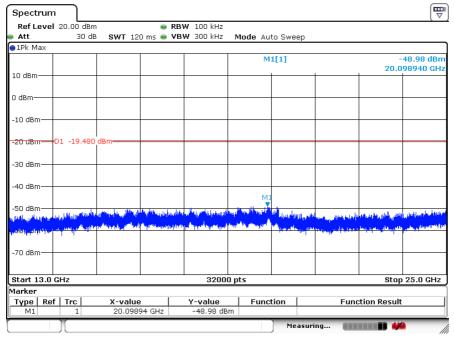
Date:16 JUN 2017 17:31:24



Report No.: BST1707752820001Y-ER-1



Date: 16 JUN 2017 17:31:45

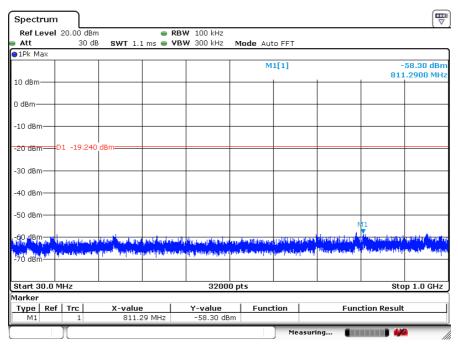


Date:16.JUN 2017 17:31:56

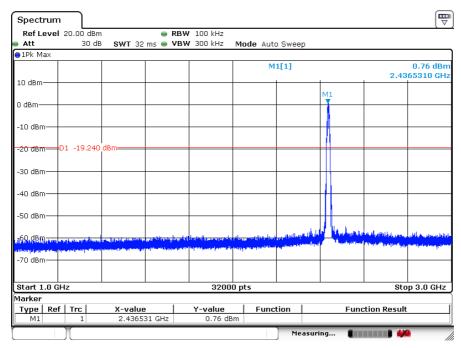


Report No.: BST1707752820001Y-ER-1

802.11b-Middle



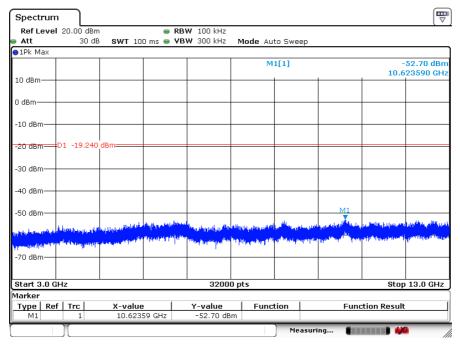
Date: 16 JUN 2017 17:32:30



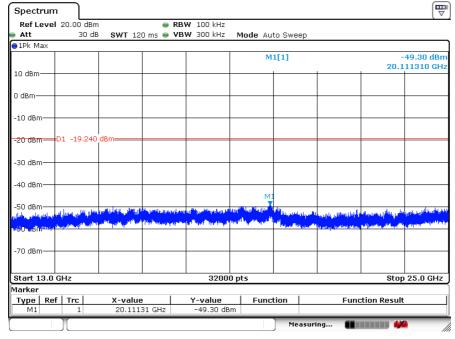
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Report No.: BST1707752820001Y-ER-1



Date: 16.JUN 2017 17:32:42

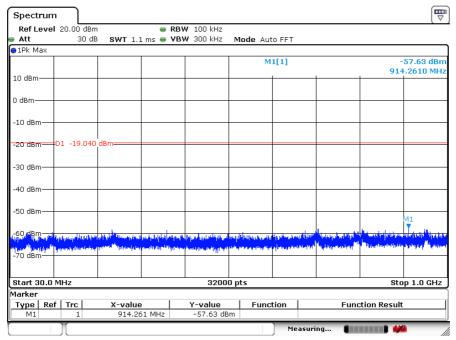


Date: 16 JUN 2017 17:32:55

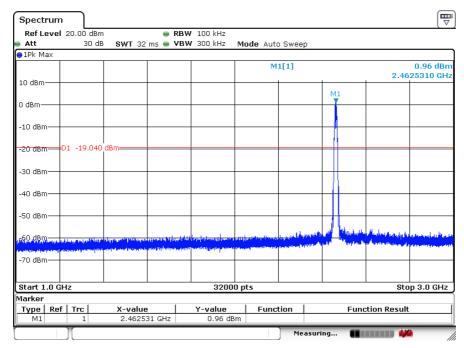


Report No.: BST1707752820001Y-ER-1

802.11b-High



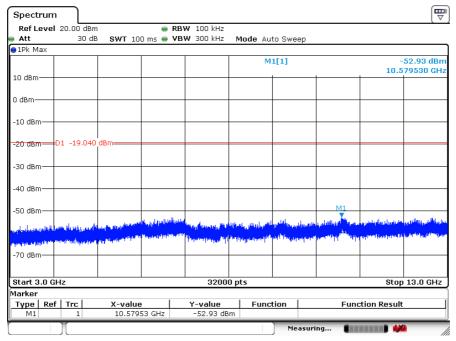
Date: 16 JUN 2017 17:33:34



Date:16 JUN 2017 17:33:23



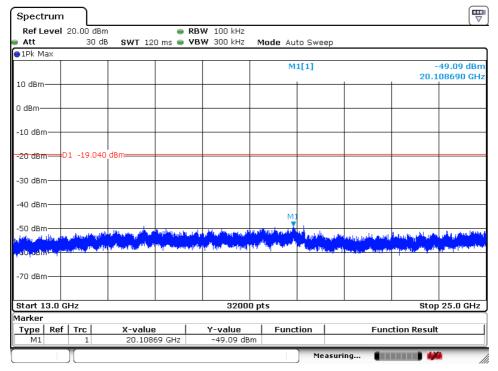
Report No.: BST1707752820001Y-ER-1



Date: 16.JUN 2017 17:34:05

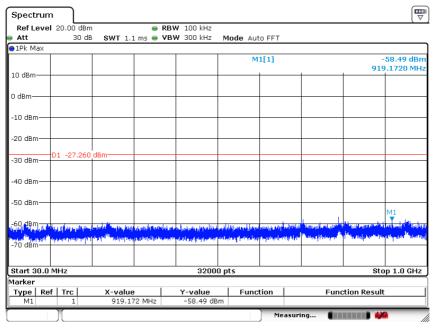


Report No.: BST1707752820001Y-ER-1



Date:16.JUN 2017 17:34:19

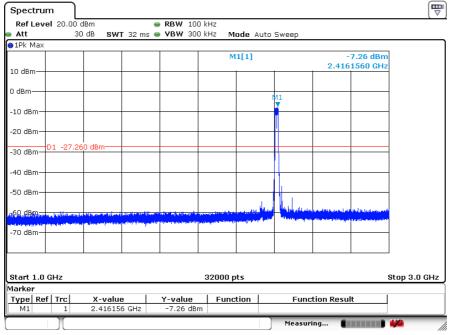
802.11g-Lowest



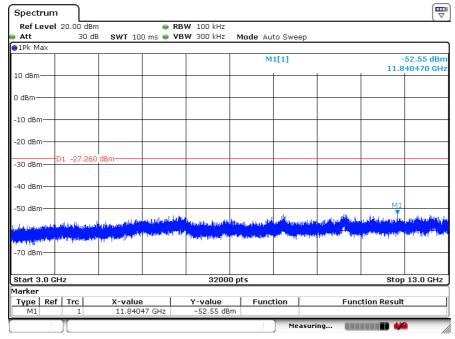
Date: 16 JUN 2017 17:30:35



Report No.: BST1707752820001Y-ER-1



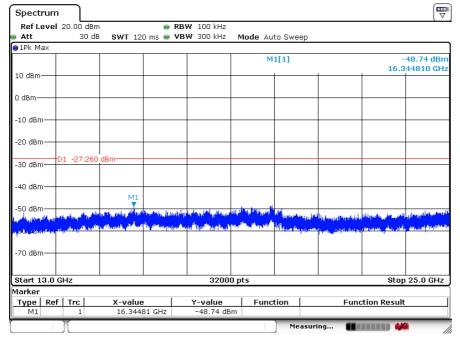
Date: 16 JUN 2017 17:30:24



Date:16.JUN 2017 17:30:46

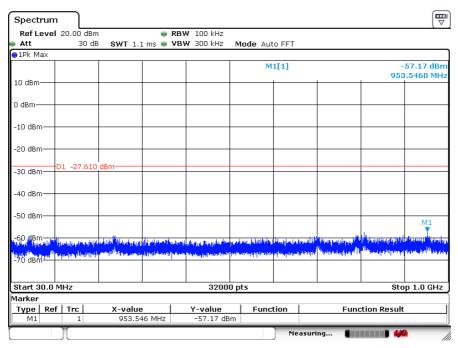






Date:16.JUN 2017 17:30:58

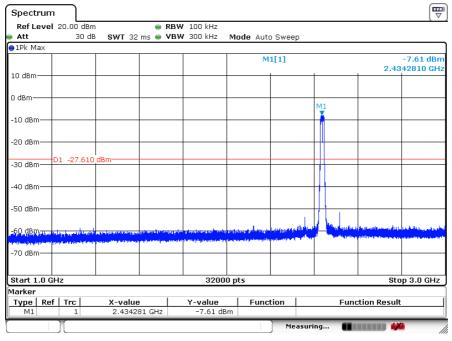
802.11g-Middle



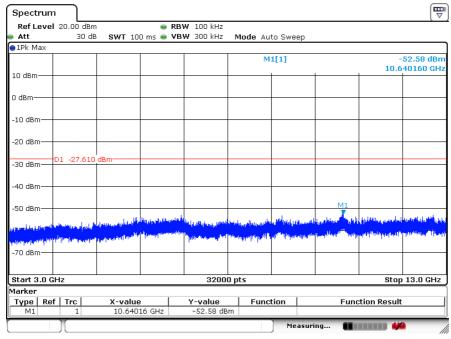
Date:16.JUN 2017 17:29:36



Report No.: BST1707752820001Y-ER-1



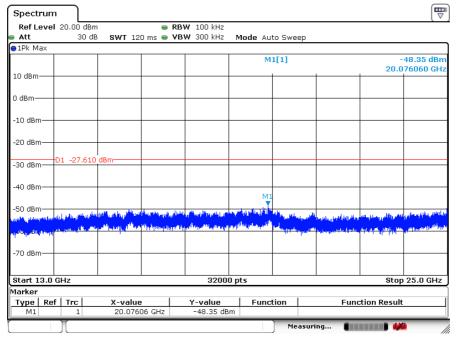
Date: 16 JUN 2017 17:29:12



Date:16.JUN 2017 17:29:46

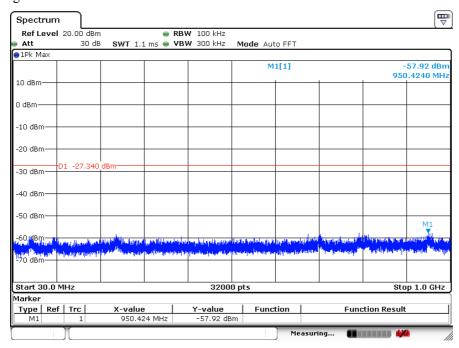


Report No.: BST1707752820001Y-ER-1



Date: 16 JUN 2017 17:30:01

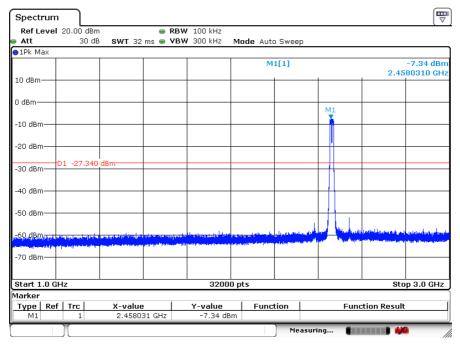
802.11g-High



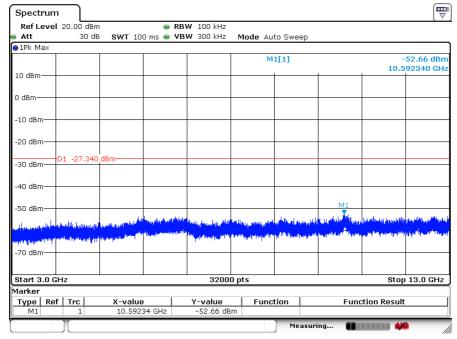
Date:16 JUN 2017 17:27:46



Report No.: BST1707752820001Y-ER-1



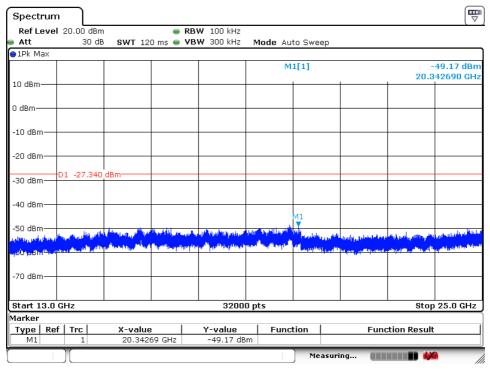
Date: 16.JUN 2017 17:27:29



Date: 16 JUN 2017 17:27:57

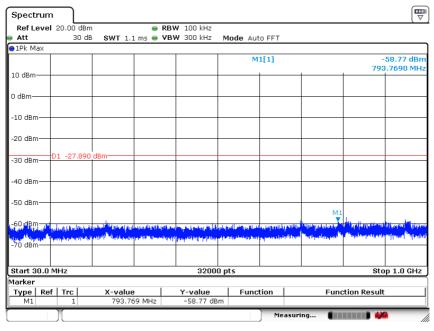


Report No.: BST1707752820001Y-ER-1



Date:16.JUN 2017 17:28:10

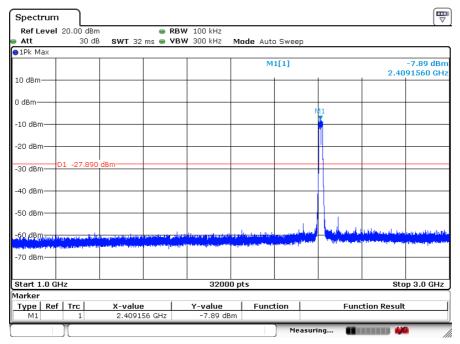
802.11n-HT20-Lowest



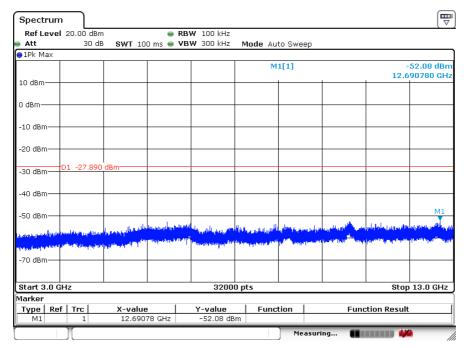
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Report No.: BST1707752820001Y-ER-1



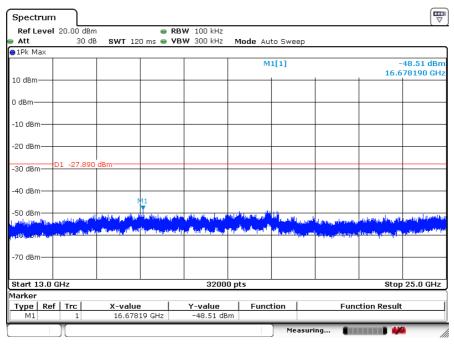
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Date:16 JUN 2017 17:24:37



Report No.: BST1707752820001Y-ER-1

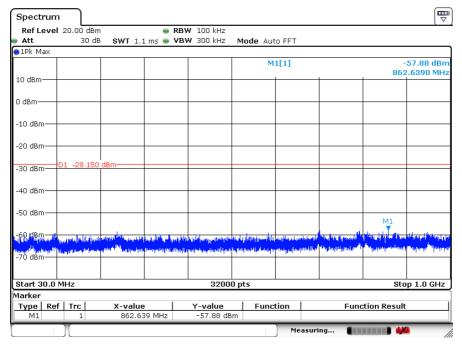


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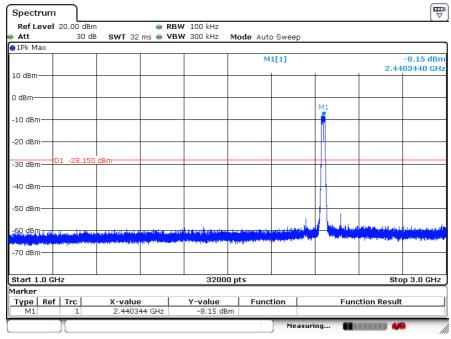
802.11n-HT20-Middle



Report No.: BST1707752820001Y-ER-1



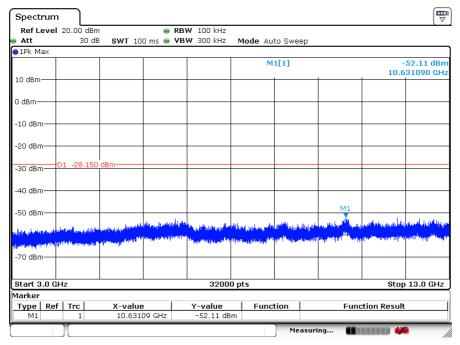
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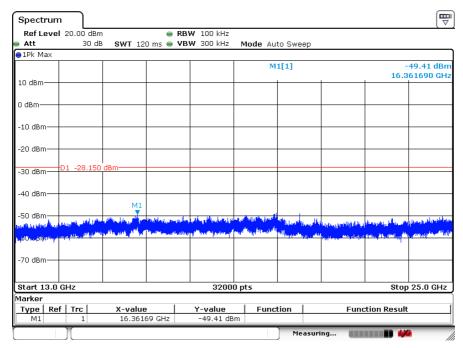
Date:16.JUN 2017 17:25:19



Report No.: BST1707752820001Y-ER-1



Date: 16 JUN 2017 17:25:44

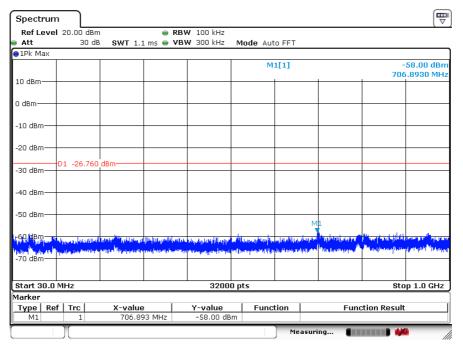


Date: 16 JUN 2017 17:25:56



Report No.: BST1707752820001Y-ER-1

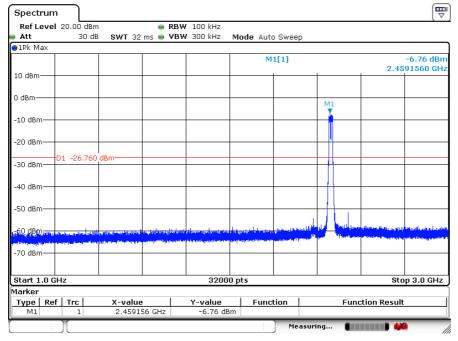
802.11n-HT20-Highest



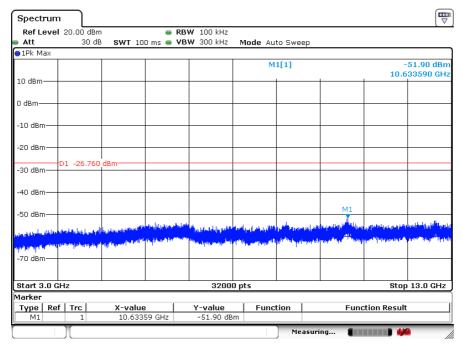
Date: 16.JUN 2017 17:26:34



Report No.: BST1707752820001Y-ER-1



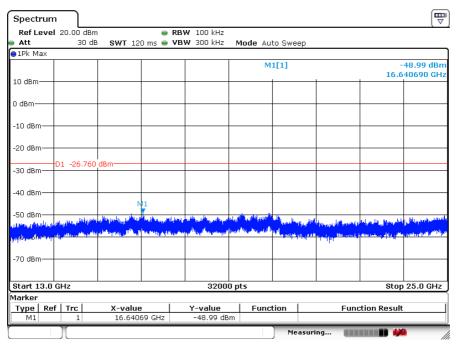
Date: 16 JUN 2017 17:26:22



Date: 16 JUN 2017 17:26:46



Report No.: BST1707752820001Y-ER-1



Date: 16 JUN 2017 17:26:58



9. Out of Band Emissions

9.1 Standard Applicable

According to §15.247 (d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is

Report No.: BST1707752820001Y-ER-1

produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within

the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted

power limits. If the transmitter complies with the conducted power limits based on the use of RMS

averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation

required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits

specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands,

as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

9.2 Test Procedure

According to the KDB 558074D01 v03r05, the band-edge radiated test method as follows:

Set span = wide enough to capture the peak level of the emission operating on the channel closest to the bandedge, as well as any modulation products which fall outside of the authorized band of operation

(2310MHz to 2420MHz for low bandedge, 2460MHz to 2500MHz for the high bandedge)

RBW = 1MHz, VBW = 1MHz for peak value

measured RBW = 1MHz, VBW = 10Hz for

average value measured

Sweep = auto; Detector function = peak/average; Trace = max hold

All the trace to stabilize, set the marker on the emission at the bandedge, or on the highest modulation product outside of the band, if this level is greater than that at the bandedge. Enable the marker-delta

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function, then use the marker-to-peak function to move the marker to the peak of the in-band emission. Those emission must comply with the 15.209 limit for fall in the restricted bands listed in section 15.205. Note that the method of measurement KDB publication number: 913591 may be used for the radiated bandedge measurements.

According to the KDB 558074 D01 v03r05, the conducted spurious emissions test method as follows:

- 1. Set start frequency to DTS channel edge frequency.
- 2. Set stop frequency so as to encompass the spectrum to be examined.
- 3. Set RBW = 100 kHz.
- 4. Set VBW \geq 300 kHz.
- 5. Detector = peak.
- 6. Trace Mode = max hold.
- 7. Sweep = auto couple.
- 8. Allow the trace to stabilize (this may take some time, depending on the extent of the span).
- 9. Use peak marker function to determine maximum amplitude of all unwanted emissions within any 100 kHz bandwidth.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) are attenuated by at least the minimum requirements specified in section 8.1. Report the three highest emissions relative to the limit.

9.3 Environmental Conditions

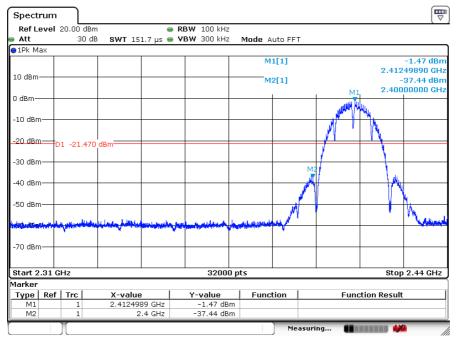
Temperature:	21℃
Relative Humidity:	50%
ATM Pressure:	101.2

9.4 Summary of Test Results/Plots



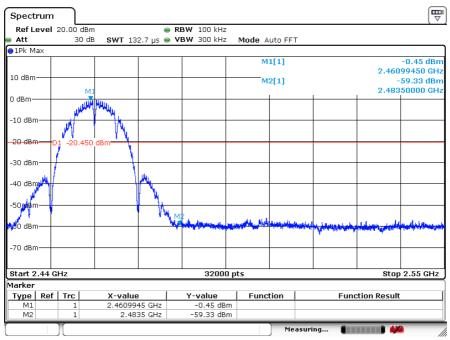
Report No.: BST1707752820001Y-ER-1

802.11b low channel



Date: 10 JUN 2017 11:09:41

802.11b High channel

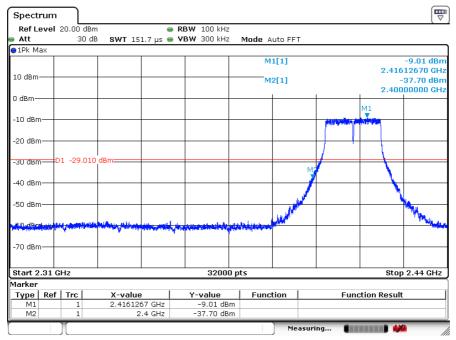


Date: 10 JUN 2017 11:13:44



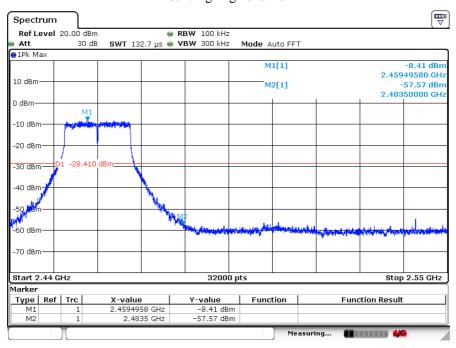
Report No.: BST1707752820001Y-ER-1

802.11g low channel



Date: 10 JUN 2017 11:10:25

802.11g High channel

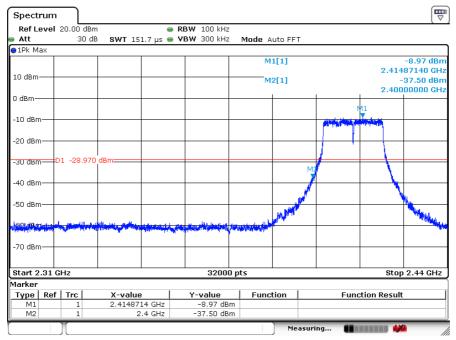


Date: 10 JUN 2017 11:13:17



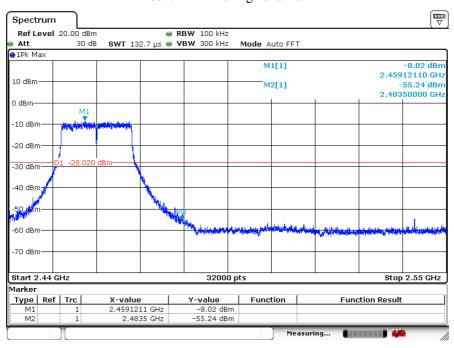
Co., Ltd. Report No.: BST1707752820001Y-ER-1

802.11n HT20 low channel



Date: 10 JUN 2017 11:10:48

802.11n HT20 High channel



Date: 10 JUN 2017 11:12:52

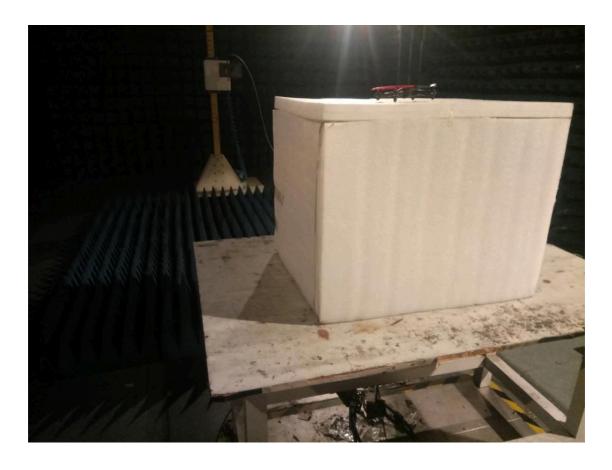


Report No.: BST1707752820001Y-ER-1



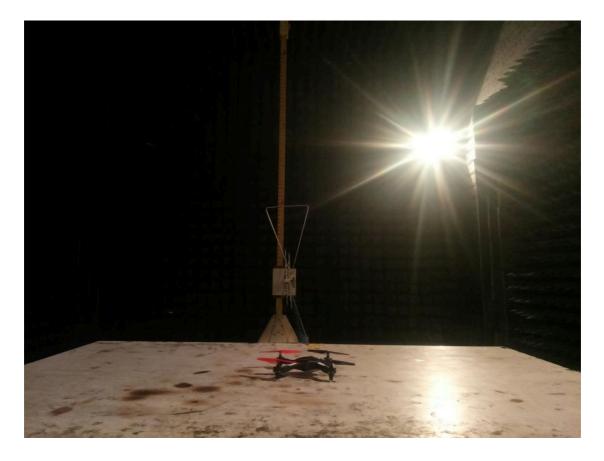
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10.TEST PHOTO





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Test report