



Page: 1 / 51 Rev.: 00

# Permissive Change test report FCC 47 CFR PART 15 SUBPART C

Test Standard	FCC Part 15.247
Product name	WiFi and Bluetooth Module
Brand Name	JORJIN
Model No.	WG7837-V0
Test Result	Pass
Statements of Conformity	Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

The test Result was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were given in ANSI C63.10: 2013 and compliance standards.

The test results of this report relate only to the tested sample (EUT) identified in this report.

The test Report of full or partial shall not copy. Without written approval of Compliance Certification Services Inc. (Wugu Laboratory).

Approved by:

Komil Tsori

Kevin Tsai Deputy Manager

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。

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Page: 2 / 51 Rev.: 00

# **Revision History**

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	July 26, 2021	Initial Issue	ALL	Doris Chu



Page: 3 / 51 Rev.: 00

# Table of contents

1.	GENERAL INFORMATION
1.1	EUT INFORMATION
1.2	EUT CHANNEL INFORMATION 5
1.3	ANTENNA INFORMATION
1.4	MEASUREMENT UNCERTAINTY6
1.5	FACILITIES AND TEST LOCATION7
1.6	INSTRUMENT CALIBRATION7
1.7	SUPPORT AND EUT ACCESSORIES EQUIPMENT9
1.8	TEST METHODOLOGY AND APPLIED STANDARDS9
2.	TEST SUMMARY 10
3.	DESCRIPTION OF TEST MODES 11
3.1	THE WORST MODE OF OPERATING CONDITION 11
3.2	THE WORST MODE OF MEASUREMENT 12
4.	TEST RESULT 13
4.1	OUTPUT POWER MEASUREMENT 13
4.2	RADIATION SPURIOUS EMISSION
	APPENDIX 1 - PHOTOGRAPHS OF EUT



# 1. GENERAL INFORMATION

# **1.1 EUT INFORMATION**

Applicant	Jorjin Technologies Inc. 17F1, NO.239, SEC. 1, DATONG RD., XIZHI DIST. New Taipei City, 22161 Taiwan
Manufacturer	Jorjin Technologies Inc. 17F1, NO.239, SEC. 1, DATONG RD., XIZHI DIST. New Taipei City, 22161 Taiwan
Equipment	WiFi and Bluetooth Module
Model No.	WG7837-V0
Model Discrepancy	N/A
Trade Name	JORJIN
Received Date	April 15, 2021
Date of Test	May 6 ~ July 14, 2021
Power Supply	Power from host device.
HW Version	WG7837-V1A-R01_210317-1
SW Version	FW 8.9.0.0.88
EUT Serial #	WG7837-V0 / WG7837-V1
Class II Permissive Change	<ol> <li>To change the TCXO component.</li> <li>Original TCXO component is SEIKO EPSON TG-5035CJ-12N then change to TKD TC20A026000GECN011, TKD TC20A026000GECN011 electrical specifications is compatible SEIKO EPSON TG-5035CJ-12N.</li> </ol>

Remark:

1. For more details, please refer to the User's manual of the EUT.

2. Disclaimer: Antenna information is provided by the applicant, test results of this report are applicable to the sample EUT received.

3. The EUT (model: WG7837-V0) had been tested under operating condition.



Page: 5 / 51 Rev.: 00

1

Report No.: T210415W07-RP3

# **1.2 EUT CHANNEL INFORMATION**

Frequency Range	802.11b/g/n HT 20: 2412MHz ~ 2462MHz 802.11n HT40: 2422MHz ~ 2452MHz
Modulation Type	<ol> <li>IEEE 802.11b mode: CCK</li> <li>IEEE 802.11g mode: OFDM</li> <li>IEEE 802.11n HT 20 MHz mode : OFDM</li> <li>IEEE 802.11n HT 40 MHz mode : OFDM</li> </ol>
Number of channel	<ol> <li>IEEE 802.11b mode: 11 Channels</li> <li>IEEE 802.11g mode: 11 Channels</li> <li>IEEE 802.11n HT 20 MHz mode : 11 Channels</li> <li>IEEE 802.11n HT 40 MHz mode : 7 Channels</li> </ol>

# Remark:

Refer as ANSI C63.10: 2013 clause 5.6.1 Table 4 for test channels

Number of frequencies to be tested				
Frequency range inNumber ofLocation in frequencywhich device operatesfrequenciesrange of operation				
☐ 1 MHz or less	1	Middle		
□ 1 MHz to 10 MHz	2	1 near top and 1 near bottom		
🛛 More than 10 MHz	3	1 near top, 1 near middle, and 1 near bottom		



Page: 6 / 51 Rev.: 00

# **1.3 ANTENNA INFORMATION**

Antenna Type	Brand	Antenna Gain
PCB	Ethertronics	-0.6 dBi
Dipole	LSR	2 dBi
PCB	Laird	2 dBi
Chip	Pulse	3.2 dBi (Worst)
PIFA	LSR	2 dBi
Chip	TDK	2.4 dBi

Remark:

1. The antenna(s) of the EUT are permanently attached and there are no provisions for connection to an external antenna. So the EUT complies with the requirements of §15.203.

# **1.4 MEASUREMENT UNCERTAINTY**

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	+/- 1.2575
Emission bandwidth, 20dB bandwidth	+/- 0.0014
RF output power, conducted	+/- 1.14
Power density, conducted	+/- 1.40
3M Semi Anechoic Chamber / 30M~200M	+/- 4.12
3M Semi Anechoic Chamber / 200M~1000M	+/- 4.68
3M Semi Anechoic Chamber / 1G~8G	+/- 5.18
3M Semi Anechoic Chamber / 8G~18G	+/- 5.47
3M Semi Anechoic Chamber / 18G~26G	+/- 3.81
3M Semi Anechoic Chamber / 26G~40G	+/- 3.87

Remark:

1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2

2. ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report.



Page: 7 / 51 Rev.: 00

Report No.: T210415W07-RP3

# **1.5 FACILITIES AND TEST LOCATION**

All measurement facilities used to collect the measurement data are located at

No.11, Wugong 6th Rd., Wugu Dist., New Taipei City, Taiwan. (R.O.C.)

CAB identifier: TW1309

Test site	Test Engineer	Remark
Radiation	Ray Li	-
RF Conducted	Jerry Chang	-

**Remark:** The lab has been recognized as the FCC accredited lad under the KDB 974614 D01 and is listed in the FCC pubic Access Link (PAL) database, FCC Registration No. :444940, the FCC Designation No.:TW1309

# **1.6 INSTRUMENT CALIBRATION**

	RF Conducted Test Site					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due	
Signal Analyzer	R&S	FSV 40	101073	09/17/2020	09/16/2021	
Power Meter	Anritsu	ML2487A	6K00003260	05/24/2021	05/23/2022	
Power Seneor	Anritsu	MA2490A	032910	05/24/2021	05/23/2022	
Software			N/A			



Page: 8 / 51 Rev.: 00

3M 966 Chamber Test Site					
Equipment	Manufacturer	Model	Serial Number	Cal Date	Cal Due
Band Reject Filters	MICRO TRONICS	BRM 50702	120	02/08/2021	02/07/2022
Bilog Antenna	Sunol Sciences	JB3	A030105	07/24/2020	07/23/2021
Horn Antenna	ETS LINDGREN	3116	00026370	12/11/2020	12/10/2021
Coaxial Cable	HUBER SUHNER	SUCOFLEX 104PEA	20995	02/24/2021	02/23/2022
Coaxial Cable	EMCI	EMC105	190914+327109/4	09/19/2020	09/18/2021
K Type Cable	Huber+Suhner	SUCOFLEX 102	29406/2	12/09/2020	12/08/2021
K Type Cable	Huber+Suhner	SUCOFLEX 102	22470/2	12/09/2020	12/08/2021
Digital Thermo-Hygro Meter	WISEWIND	1206	D07	01/06/2021	01/05/2022
double Ridged Guide Horn Antenna	ETC	MCTD 1209	DRH13M02003	09/30/2020	09/29/2021
Loop Ant	COM-POWER	AL-130	121051	04/07/2021	04/06/2022
Pre-Amplifier	EMEC	EM330	060609	02/24/2021	02/23/2022
Pre-Amplifier	HP	8449B	3008A00965	12/25/2020	12/24/2021
Pre-Amplifier	MITEQ	AMF-6F-18004000-37-8P	985646	09/02/2020	09/01/2021
PSA Series Spectrum Analyzer	Agilent	E4446A	MY46180323	07/24/2020	07/23/2021
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Software	Software e3 6.11-20180413				

**Remark:** Each piece of equipment is scheduled for calibration once a year.



# **1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT**

EUT Accessories Equipment						
No.	No. Equipment Brand Model Series No. FCC ID					
	N/A					

	Support Equipment							
No.	o. Equipment Brand Model Series No. FCC ID IC							
1	NB(L)	Toshiba	PORTEGE R30-A	N/A	PD97260H	N/A		

# **1.8 TEST METHODOLOGY AND APPLIED STANDARDS**

The test methodology, setups and results comply with all requirements in accordance with ANSI C63.10:2013, FCC Part 2, FCC Part 15.247



Page: 10 / 51 Rev.: 00

# 2. TEST SUMMARY

FCC Standard Section	Report Section	Test Item	Result
15.203	1.3	Antenna Requirement	Pass
15.247(b)(3	) 4.1	Output Power Measurement	Pass
15.247(d)	4.2	Radiation Spurious Emission	Pass



Page: 11 / 51 Rev.: 00

# 3. DESCRIPTION OF TEST MODES

# **3.1 THE WORST MODE OF OPERATING CONDITION**

Operation mode	1TX: IEEE 802.11b mode :1Mbps IEEE 802.11g mode :6Mbps IEEE 802.11n HT20 mode: MCS0 IEEE 802.11n HT40 Mode: MCS0 2TX: IEEE 802.11n HT20 mode: MCS12
Test Channel Frequencies	IEEE 802.11b mode : 1. Lowest Channel : 2412MHz 2. Middle Channel : 2437MHz 3. Highest Channel : 2462MHz IEEE 802.11g mode : 1. Lowest Channel : 2412MHz 2. Middle Channel : 2437MHz 3. Highest Channel : 2462MHz IEEE 802.11n HT20 mode : 1. Lowest Channel : 2412MHz 2. Middle Channel : 2437MHz 3. Highest Channel : 2462MHz IEEE 802.11n HT40 Mode: 1. Lowest Channel : 2422MHz 2. Middle Channel : 2437MHz 3. Highest Channel : 2452MHz
Operation Transmitter	IEEE 802.11b mode :1T1R IEEE 802.11g mode :1T1R IEEE 802.11n HT20 mode : 2T2R IEEE 802.11n HT40 mode : 1T1R

Remark:

1. EUT pre-scanned data rate of output power for each mode, the worst data rate were recorded in this report.



Page: 12 / 51 Rev.: 00

Report No.: T210415W07-RP3

# **3.2 THE WORST MODE OF MEASUREMENT**

Radiated Emission Measurement Above 1G					
Test Condition	Test Condition Radiated Emission Above 1G				
Power supply Mode Mode 1: EUT power by Host System					
Worst Mode	🛛 Mode 1 🗌 Mode 2 🗌 Mode 3 🗌 Mode 4				
Worst Position	<ul> <li>Placed in fixed position.</li> <li>Placed in fixed position at X-Plane (E2-Plane)</li> <li>Placed in fixed position at Y-Plane (E1-Plane)</li> <li>Placed in fixed position at Z-Plane (H-Plane)</li> </ul>				

Radiated Emission Measurement Below 1G						
Test Condition Radiated Emission Below 1G						
Power supply Mode	Power supply Mode Mode 1: EUT power by Host System					
Worst Mode         Mode 1         Mode 2         Mode 3         Mode 4						

Remark:

1. The worst mode was record in this test report.

2. EUT pre-scanned in three axis ,X,Y, Z and two polarity, for radiated measurement. The worst case(X-Plane) were recorded in this report



# 4. TEST RESULT

# **4.1 OUTPUT POWER MEASUREMENT**

# 4.1.1 Test Limit

According to §15.247(b) and RSS-247 section 5.4(d),

# Peak output power :

# FCC:

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement,

	Antenna not exceed 6 dBi : 30dBm
Limit	Antenna with DG greater than 6 dBi :
	[Limit = 30 - (DG - 6)]
	Point-to-point operation :

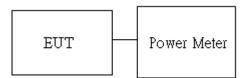
**Average output power** : For reporting purposes only.

# 4.1.2 Test Procedure

Test method Refer as ANSI C63.10:2013.

- 1. The EUT RF output connected to the power meter by RF cable.
- 2. Setting maximum power transmit of EUT.
- 3. The path loss was compensated to the results for each measurement.
- 4. Measure and record the result of Peak output power and Average output power. in the test report.

# 4.1.3 Test Setup



Page: 13 / 51 Rev.: 00



Page: 14 / 51 Rev.: 00

# 4.1.4 Test Result

Temperature:	<b>21.7 ~ 25.8</b> ℃	Humidity:	41 ~ 57% RH
Tested by:	Jerry Chang	Test date:	May 6 ~ July 14, 2021

#### Peak output power :

Wifi 2.4G							
Config	СН	Freq. (MHz)	power setting	PK Power (dBm)	Limit (dBm)		
IEEE	Low	2412	16	17.63			
802.11b Data rate:	Mid	2437	16	17.75			
1Mbps	High	2462	16	17.48			
IEEE 802.11g Data rate:	Low	2412	14	19.93			
	Mid	2437	16	20.22			
6Mbps	High	2462	14	19.73	30		
IEEE 802.11n	Low	2412	14	19.96	- 30		
HT20	Mid	2437	16	20.24			
Data rate: MCS0	High	2462	13	19.68			
IEEE 802.11n HT40	Low	2422	10	18.92			
	Mid	2437	16	20.09			
Data rate: MCS0	High	2452	11	19.17			

2TX:

Wifi 2.4G									
Config	2	CH Freq. (MHz)	power setting		PK Power (dBm)		PK Total Power	PK Total Power	Limit
Config	Сп		Chain 0	Chain 1	Chain 0	Chain 1		(W)	(dBm)
IEEE 802.11n	Low	2412	14	14.5	19.58	21.23	23.49	0.2235	
HT20	Mid	2437	13.75	15.5	20.03	20.67	23.37	0.2174	30
Data rate: MCS12	High	2462	13.75	14	19.39	20.76	23.14	0.2060	



# Average output power :

1TX:

Wifi 2.4G						
Config	СН	Freq. (MHz)	AV Power(dBm)			
IEEE 802.11b	Low	2412	15.61			
Data rate:	Mid	2437	15.80			
1Mbps	High	2462	15.53			
IEEE 802.11g	Low	2412	14.38			
Data rate:	Mid	2437	16.18			
6Mbps	High	2462	14.00			
IEEE 802.11n	Low	2412	14.18			
HT20 Data rate:	Mid	2437	16.22			
MCS0	High	2462	13.12			
IEEE 802.11n	Low	2422	10.65			
HT40 Data rate:	Mid	2437	16.07			
MCS0	High	2452	11.07			

### 2TX:

Wifi 2.4G								
Config	СН	Freq. (MHz)	AV Pow	er(dBm)	AV Total			
Coning			Chain 0	Chain 1	Power (dBm)			
IEEE 802.11n HT20 Data rate: MCS12	Low	2412	8.47	8.74	11.62			
	Mid	2437	8.39	10.67	12.69			
	High	2462	7.68	9.01	11.40			

Page: 15 / 51 Rev.: 00



Page: 16 / 51 Rev.: 00

# 4.2 RADIATION SPURIOUS EMISSION

# 4.2.1 Test Limit

FCC according to §15.247(d), §15.209 and §15.205,

In any 100 kHz bandwidth outside the authorized frequency band, all harmonic and spurious must be least 20 dB below the highest emission level with the authorized frequency band. Radiation emission which fall in the restricted bands must also follow the FCC section 15.209 as below limit in table.

## Below 30 MHz

Frequency	Field Strength (microvolts/m)	Magnetic H-Field (microamperes/m)	Measurement Distance (metres)
9-490 kHz	2,400/F (F in kHz)	2,400/F (F in kHz)	300
490-1,705 kHz	24,000/F (F in kHz)	24,000/F (F in kHz)	30
1.705-30 MHz	30	N/A	30

#### Above 30 MHz

Frequency	Field Strength (microvolts/m)	Measurement Distance (metres)
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remark:

Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open are test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.



Page: 17 / 51 Rev.: 00

# 4.2.2 Test Procedure

Test method Refer as ANSI C63.10:2013.

1. The EUT is placed on a turntable, Above 1 GHz is 1.5m and below 1 GHz is 0.8m above ground plane. The EUT Configured un accordance with ANSI C63.10: 2013, and the EUT set in a continuous mode.

2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level. And EUT is set 3m away from the receiving antenna, which is scanned from 1m to 4m above the ground plane to find out the highest emissions. Measurement are made polarized in both the vertical and the horizontal positions with antenna.

3. Span shall wide enough to full capture the emission measured. The SA from 9kHz to 26.5GHz set to the low, Mid and High channels with the EUT transmit.

Note: No emission found between lowest internal used/generated frequency to 30MHz (9KHz~30MHz)

Remark:

Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open are test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.

- 4. The SA setting following :
  - (1) Below 1G : RBW = 100kHz, VBW ≥ 3 RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.
  - (2) Above 1G:
    - (2.1) For Peak measurement : RBW = 1MHz, VBW ≥ 3 RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.
    - (2.2) For Average measurement : RBW = 1MHz, VBW

If Duty Cycle  $\geq$  98%, VBW=10Hz.

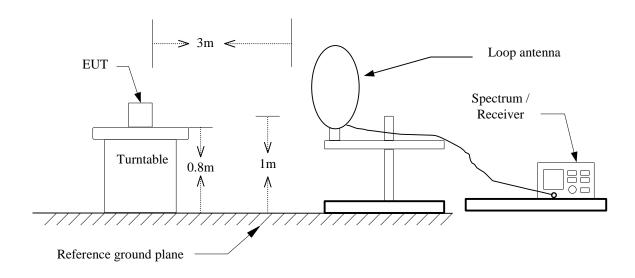
'If Duty Cycle < 98%, VBW=1/T.



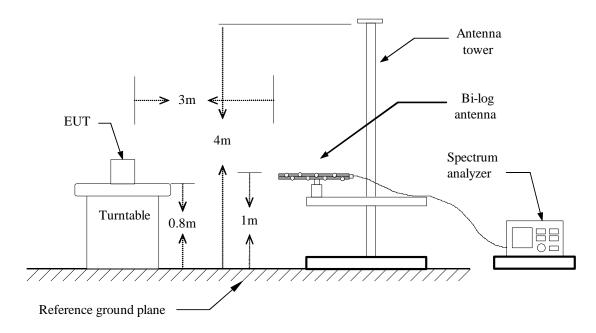
Page: 18 / 51 Rev.: 00

# 4.2.3 Test Setup

# <u>9kHz ~ 30MHz</u>



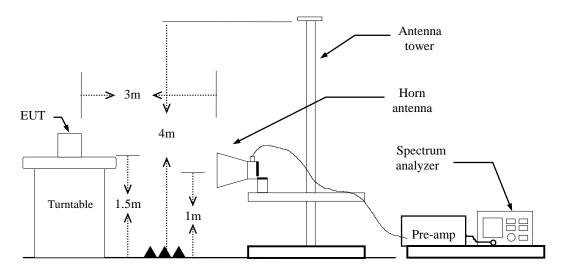
## <u>30MHz ~ 1GHz</u>





Page: 19 / 51 Rev.: 00

# Above 1 GHz





Page: 20 / 51 Rev.: 00

# 4.2.4 Test Result

# Below 1G Test Data

Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBµV)	Factor (dB)	Actual FS (dBµV/m)	Limit @3m (dBµV/m)	Margin (dB)	
30	224.	418. Fre	quency (MHz)	612.	806.	1000	
0							
10							
30	2	3	4		5	6	
50							
70	· · · · · · · · · · · · · · · · · · ·						
90							
110	· · · · · · · · · · · · · · · · · · ·						
120 Level (dBuV	/m)						
Detecto	r	Peak		est Voltage			
Polarize		Vertical		st Engineer	Ra	ay Li	
Test Iter		30MHz-1GHz		Test Date		8, 2021	
Test Mod		Mode 1				<u>)/ 51%RH</u>	

rieq.	Mode	Reading Level	Factor	FS	@3m	wargin
(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
54.25	Peak	45.61	-16.26	29.35	40.00	-10.65
162.89	Peak	32.64	-10.42	22.22	43.50	-21.28
303.54	Peak	33.14	-8.50	24.64	46.00	-21.36
500.45	Peak	32.81	-3.30	29.51	46.00	-16.49
844.80	Peak	26.29	2.45	28.74	46.00	-17.26
948.59	Peak	25.72	4.34	30.06	46.00	-15.94

Note: No emission found between lowest internal used/generated frequency to 30MHz(9KHz~30MHz)

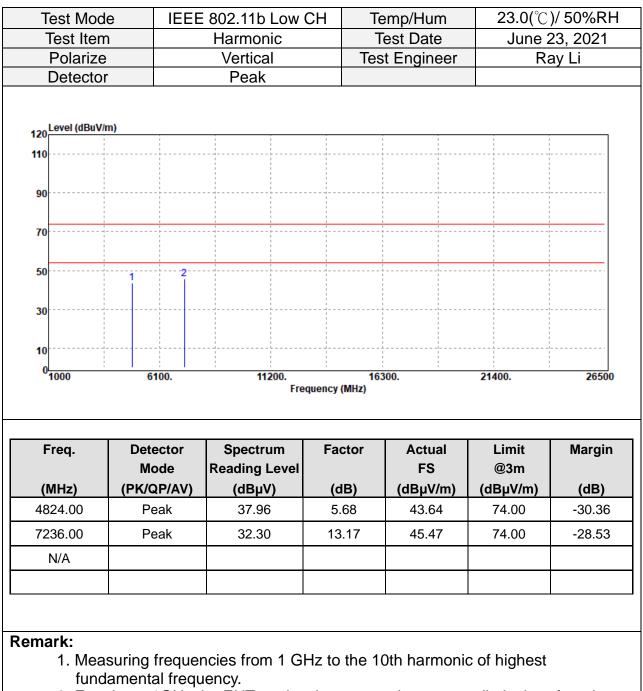


Test Mo	ode	Mode 1	٦	「emp/Hum	<b>23.4(</b> ℃	)/ 51%R
Test Ite	em	30MHz-1GHz		Test Date	June 8, 2021	
Polari		Horizontal		st Engineer	Ra	ay Li
Detect	tor	Peak		est Voltage		
120	uV/m)					
110						
90						
70						
50						
30 1	2	3	4		5	6
10 0 30	224.	418.		12.	806.	1000
		Fre	quency (MHz)			
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
44.55	Peak	39.00	-12.85	26.15	40.00	-13.85
160.95	Peak	34.57	-10.40	24.17	43.50	-19.33
	Peak	29.09	-5.92	23.17	46.00	-22.83
399.57			-3.30	32.20	46.00	-13.80
399.57 500.45	Peak	35.50	-3.30	52.20		
	Peak Peak	35.50 25.24	2.49	27.73	46.00	-18.27

Note: No emission found between lowest internal used/generated frequency to 30MHz(9KHz~30MHz)



# Above 1G Test Data



2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 23 / 51 Rev.: 00

Test Mod	de IEEE	802.11b Low	СН Т	emp/Hum	<b>23.0(</b> ℃)	/ 50%Rł
Test Iter	n	Harmonic		Test Date	June 2	3, 2021
Polarize	e	Horizontal		st Engineer	Ra	iy Li
Detecto	or	Peak				
120 Level (dBuV	//m)					
110						
90						
70				· · · · · · · · · · · · · · · · · · ·		
50	1 1		 			
30			·	· · · · · · · · · · · · · · · · · · ·		
10						
0 <mark>.</mark> 1000	6100.	11200. Fre	1t quency (MHz)	i300.	21400.	26500
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
(8411_)	Mode	Reading Level		FS	@3m	
(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
4824.00	Peak	37.35	5.68	43.03	74.00	-30.97
7236.00	Peak	32.73	13.17	45.90	74.00	-28.10
N/A						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 24 / 51 Rev.: 00

Test Mod	de IEEE	802.11b Mid	СН Т	emp/Hum	<b>23.0(°</b> ℃)	/ 50%RI
Test Iter	n	Harmonic		Test Date		3, 2021
Polarizo	e	Vertical	Tes	st Engineer	Ra	iy Li
Detecto	or	Peak				
120 Level (dBuV	//m)					
110						
90						
30						
70						
50	1 2					
30			·			
10						
0 <mark>1000</mark>	6100.	11200. Fre	16 quency (MHz)	300.	21400.	26500
			quency (mnz)			
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
4874.00	Peak	38.89	5.92	44.81	74.00	-29.19
7311.00	Peak	31.66	13.26	44.92	74.00	-29.08
1011.00						
N/A						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 25 / 51 Rev.: 00

Test Mod	le IEEE	E 802.11b Mid C	СН Т	emp/Hum	<b>23.0(°</b> ℃)	)/ 50%RI
Test Iter	n	Harmonic		Test Date	June 23, 2021	
Polarize	9	Horizontal	Te	st Engineer	Ra	ay Li
Detecto	r	Peak				
120 Level (dBuV	/m)					
110						
110						
90	     			· · · · · · · · · · · · · · · · · · ·		
70			   		 	
50	1 2					
30	J					
			, , , ,			
10						
0 <mark></mark> 1000	6100.	11200. Freq	16 Juency (MHz)	300.	21400.	26500
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
4874.00	Peak	38.55	5.92	44.47	74.00	-29.53
7311.00	Peak	31.48	13.26	44.74	74.00	-29.26
N/A						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 26 / 51 Rev.: 00

Test Mod	de IEEE	802.11b High	СН Т	emp/Hum	<b>23.0(</b> ℃)	/ 50%Rł
Test Iter		Harmonic		Fest Date	June 23, 2021	
Polarize	e	Vertical	Tes	st Engineer	Ra	ay Li
Detecto	r	Peak				
120 Level (dBuV	//m)					
110				· • •		
90						
90						
70				· · · · · · · · · · · · · · · · · · ·	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
50	1 2			· · · · · · · · · · · · · · · · · · ·	 	
30						
10						
0 <mark></mark>	6100.	11200.		300.	21400.	26500
		Free	quency (MHz)			
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	-
(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
4924.00	Peak	41.25	6.37	47.62	74.00	-26.38
7386.00	Peak	31.75	13.07	44.82	74.00	-29.18
N/A						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 27 / 51 Rev.: 00

(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
0 <mark></mark> 1000	6100.	11200. Fre	163 quency (MHz)	00.	21400.	26500
10						
30						
50	2					
	1					
70						
90						
110				       		
120 Level (dBuV	//m)					
Delecio		reak				
Polarize Detecto		Horizontal Peak	Tes	t Engineer	Ra	ay Li
Test Iter		Harmonic		est Date		23, 2021
Test Mod		802.11b High	CH Ie	mp/Hum	<b>23.0(</b> C	)/ 50%RF

Remark:
---------

7386.00

N/A

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

31.69

Peak

2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

13.07

74.00

44.76

-29.24



Page: 28 / 51 Rev.: 00

Test Mod	de IEEE	802.11g Low (	СН Т	emp/Hum	<b>23.0(°</b> ℃)	/ 50%Rł
Test Iter		Harmonic		Test Date	June 23, 2021	
Polarize	e	Vertical	Tes	st Engineer	Ra	ay Li
Detecto	r	Peak				
120 Level (dBuV	//m)					
110						
90			- - -			
70	· · · · · · · · · · · · · · · · · · ·			· · · · · · · · · · · · · · · · · · ·	+ +	
50	1 2					
30			·	· · · · · · · · · · · · · · · · · · ·		
10						
0 <mark></mark>	6100.	11200. Free	16 quency (MHz)	<b>300</b> .	21400.	26500
		116	quency (minz)			
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
4824.00	Peak	37.03	5.68	42.71	74.00	-31.29
7236.00	Peak	32.36	13.17	45.53	74.00	-28.47
N/A						
N/A						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 29 / 51 Rev.: 00

Test Mod	le IEEE	802.11g Low (	CH T	emp/Hum	<b>23.0(°</b> ℃)	/ 50%Rł
Test Iten		Harmonic		Test Date	June 23, 2021	
Polarize	9	Horizontal	Tes	st Engineer		ay Li
Detecto	r	Peak				
120 Level (dBuV	/m)					
110						
90						
70	· · · · · · · · · · · · · · · · · · ·					
50	1 2					
30						
10			1			
0 <mark></mark>	6100.	11200. Free	16 quency (MHz)	300.	21400.	26500
			(uonoj (mnz)			
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
4824.00	Peak	37.78	5.68	43.46	74.00	-30.54
7236.00	Peak	32.66	13.17	45.83	74.00	-28.17
N/A						
IN/A				-		
N/A						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 30 / 51 Rev.: 00

Test Mod	de IEEE	E 802.11g Mid 0	СН Т	emp/Hum	<b>23.0(°</b> ℃)	/ 50%RF
Test Iter		Harmonic		Test Date	June 23, 2021	
Polarize	е	Vertical		st Engineer	Ray Li	
Detecto	or	Peak				
120 Level (dBuV	//m)					
110						
90	· · · · · · · · · · · · · · · · · · ·					
70						
50						
50			1			
30						
10						
0 <mark></mark>	6100.	11200.		<u>;</u> 300.	21400.	26500
		Free	luency (MHz)			
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
4874.00	Peak	38.72	5.92	44.64	74.00	-29.36
7311.00	Peak	32.69	13.26	45.95	74.00	-28.05
N/A						
	-	+ +				

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 31 / 51 Rev.: 00

Test Mod	de IEEI	E 802.11g Mid C	Н Т	emp/Hum	23.0(°C)/ 50%R	
Test Iter		Harmonic		Test Date	June 23, 2021	
Polarize	е	Horizontal	Te	st Engineer	Ra	ay Li
Detecto	or	Peak				
120 Level (dBuV	//m)					
110						
90						
50						
70						
50	1 2		     			
30			       			
10						
0 <mark></mark>	6100.	11200. Free	16 uency (MHz)	300.	21400.	26500
		Tree	dency (minz)			
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
4874.00	Peak	39.69	5.92	45.61	74.00	-28.39
7311.00	Peak	31.95	13.26	45.21	74.00	-28.79
N/A						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 32 / 51 Rev.: 00

Test Mod	de IEEE	802.11g High	CH Te	emp/Hum	<b>23.0(°</b> ℃)	/ 50%Rł
Test Iter	n	Harmonic		est Date	June 2	3, 2021
Polarize		Vertical		st Engineer	Ray Li	
Detecto	r	Peak				
120 Level (dBuV	//m)					
110						
110						
90	· · · · · · · · · · · · · · · · · · ·					
70						
50	1 2					
30			·			
10						
				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
0 <sup>L</sup> 1000	6100.	11200. Fre	16 quency (MHz)	300.	21400.	26500
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
4924.00	Peak	35.39	6.37	41.76	74.00	-32.24
7386.00	Peak	31.03	13.07	44.10	74.00	-29.90
N/A						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 33 / 51 Rev.: 00

Test Mod	le IEEE	EEE 802.11g High CH		emp/Hum	<b>23.0(°</b> ℃)	/ 50%RI
Test Iten	n	Harmonic		Fest Date	June 23, 2021	
Polarize		Horizontal		st Engineer	Ra	ıy Li
Detecto	r	Peak				
120 Level (dBuV	(m)					
110						
90	, , , , , , , , , , , , , , , , , , ,	· · · · · · · · · · · · · · · · · · ·		i         		
70				· • • • • • • • • • • • • • • • • • • •		
50	2					
30						
10				· · · · · · · · · · · · · · · · · · ·		
0 <mark></mark> 1000	6100.	11200. Fred	16 (uency (MHz)	;300.	21400.	26500
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
(8.41.1_)	Mode	Reading Level		FS	@3m	( 15 )
(MHz) 4924.00	(PK/QP/AV) Peak	(dBµV) 40.91	(dB) 6.37	(dBµV/m) 47.28	(dBµV/m) 74.00	(dB) -26.72
7386.00	Peak	31.47	13.07	44.54	74.00	-29.46
N/A						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 34 / 51 Rev.: 00

IEEE 802.		CH	emp/Hum	23.0(°C)/ 50%Rŀ	
F		-	Test Date	June 23, 2021	
	Vertical	Tes	st Engineer	Ray Li	
	Peak				
m)					
6100.	11200. Free		300.	21400.	26500
Detector	Spectrum	Factor	Actual	Limit	Margin
	-	(40)		-	
					(dB) -34.38
Реак	32.38	13.17	45.55	74.00	-28.45
	1				
	m)	1TX         Harmonic         Vertical         Peak         m)         6100.         6100.         11200.         Free         6100.         Peak         Adde         Reading Level         (PK/QP/AV)         Peak         33.94	m) 	1TX     Iemp/Hum       Harmonic     Test Date       Vertical     Test Engineer       Peak	1TX     Iemp/Hum     23.0 (C, 3.0 (C, June 2       Harmonic     Test Date     June 2       Vertical     Test Engineer     Ra       Peak     Peak

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 35 / 51 Rev.: 00

Test Mode	IEEE 802.	11n HT20 Low 1TX	CH Te	emp/Hum	23.0(°C)/ 50%RH	
Test Item	H	Harmonic	Т	est Date	June 23, 2021	
Polarize	ŀ	Horizontal		t Engineer	Ra	ay Li
Detector		Peak				
120 Level (dBuV	//m)					
110						
90						
70						
50	12					
30						
30	· · · · · · · · · · · · · · · · · · ·					
	6100.		16: quency (MHz)	300.	21400.	26500
10	6100.			300.	21400.	26500
10	6100.			300.	21400.	26500 Margin
10 0 1000		Fre	quency (MHz)			
10 0 1000	Detector	Fre	quency (MHz)	Actual	Limit	
10 0 1000 Freq.	Detector Mode	Fre Spectrum Reading Level	quency (MHz) Factor	Actual FS	Limit @3m	Margin
10 0 1000 Freq. (MHz)	Detector Mode (PK/QP/AV)	Fre Spectrum Reading Level (dBµV)	quency (MHz) Factor (dB)	Actual FS (dBµV/m)	Limit @3m (dBµV/m)	(dB)

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 36 / 51 Rev.: 00

Test Mode	IEEE 802	.11n HT20 Mid 1TX	CH	emp/Hum	23.0(℃)/ 50%RH		
Test Item		Harmonic	1	Fest Date	June 2	June 23, 2021	
Polarize		Vertical	Tes	st Engineer	Ra	Ray Li	
Detector		Peak					
120 Level (dBuV	//m)						
110			           				
90							
70							
50	1 2						
30							
10							
0 <mark>.</mark> 1000	6100.	11200. Fre	16 quency (MHz)	300.	21400.	26500	
	_						
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin	
	Mode	Reading Level		FS	@3m		
			(dB)	(dBµV/m)	(dBµV/m)	(dB)	
(MHz)	(PK/QP/AV)	(dBµV)	(ub)	(abµt/iii)	(		
<b>(MHz)</b> 4874.00	(PK/QP/AV) Peak	(dBµV) 38.30	5.92	44.22	74.00	-29.78	
· · · · ·	· · · · · · · · · · · · · · · · · · ·						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 37 / 51 Rev.: 00

Fest Mode	IEEE 802.	11n HT20 Mid 1TX	CH T	emp/Hum	23.0(°C)/ 50%RH	
Test Item	ŀ	larmonic	-	Test Date	June 2	23, 2021
Polarize	F	lorizontal	Te	st Engineer		ay Li
Detector		Peak				
120 Level (dBuV 110 90 70	/m)					
50	12					
30						
10						
0 <sup>_</sup> 1000	6100.	11200. Free	16 quency (MHz)	300.	21400.	26500
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
4874.00	Peak	40.05	5.92	45.97	74.00	-28.03
7311.00	Peak	31.92	13.26	45.18	74.00	-28.82
N/A						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 38 / 51 Rev.: 00

(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
			quency (MHz)			
0 <mark>1000</mark>	6100.	11200.	163	300.	21400.	26500
10						
30						
50						
50						
70						
90						
110						
120 Level (dBuV	m)					
Detector		Peak				
Polarize	\ \	Vertical				ay Li
Test Item	Ha	armonic	Т	Test Date		23, 2021
est Mode		1n HT20 High ( 1TX	Te	emp/Hum	23.0(°C)/ 50%RF	

Remark:

7386.00

N/A

Peak

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

31.61

2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

13.07

44.68

74.00

-29.32



Page: 39 / 51 Rev.: 00

est Mode	IEEE 802.1	I1n HT20 High 1TX	CH T	emp/Hum	23.0(°C)/ 50%RH	
Test Item	F	larmonic	1	Test Date	June 2	23, 2021
Polarize	H	lorizontal	Tes	st Engineer		ay Li
Detector		Peak				
120 110	/ <b>m)</b>					
90						
70						
50	2					
30						
10			     			
0 <mark></mark> 1000	6100 <b>.</b>	11200. Free	16 quency (MHz)	300.	21400.	26500
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
4924.00	Peak	40.92	6.37	47.29	74.00	-26.71
7386.00	Peak	31.69	13.07	44.76	74.00	-29.24
N/A						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 40 / 51 Rev.: 00

Test Mode	IEEE 802.	11n HT20 Low 2TX	CH T	emp/Hum	<b>23.8(</b> ℃)	23.8(℃)/ 63%RF	
Test Item	F	larmonic	-	Fest Date	July 1	July 14, 2021	
Polarize		Vertical	Tes	st Engineer	Ra	iy Li	
Detector		Peak					
120 Level (dBuV 110	/m)						
10							
0 <mark>.</mark> 1000	6100.	11200. Freq	16 Juency (MHz)	300.	21400.	26500	
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
4824.00	Peak	35.94	5.68	41.62	74.00	-32.38	
7236.00	Peak	31.96	13.17	45.13	74.00	-28.87	
N/A							

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 41 / 51 Rev.: 00

Test Mode	IEEE 802.	11n HT20 Low 2TX	CH Te	emp/Hum	23.8(°C)/ 63%RF		
Test Item	I	Harmonic	Т	Test Date		July 14, 2021	
Polarize	ŀ	Iorizontal	Tes	st Engineer		ay Li	
Detector		Peak					
120	/m)						
110				· · · · · · · · · · · · · · · · · · ·			
90							
70							
50	1 1						
30							
10							
0 <mark></mark> 1000	6100.	11200. Fred	i luency (MHz)	300.	21400.	26500	
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin	
	Mode	Reading Level		FS	@3m	-	
Freq. (MHz)		-	Factor (dB)			Margin (dB)	
	Mode	Reading Level		FS	@3m	-	
(MHz)	Mode (PK/QP/AV)	Reading Level (dBµV)	(dB)	FS (dBµV/m)	@3m (dBµV/m)	(dB)	

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 42 / 51 Rev.: 00

Test Mode	IEEE 802	2.11n HT20 Mid 2TX	СН Т	emp/Hum	23.8(°C)/ 63%R⊦	
Test Item		Harmonic	-	Test Date	July 1	4, 2021
Polarize		Vertical	Te	st Engineer		ay Li
Detector		Peak				
120 Level (dBuV	/m)					]
110						
90						
70						
50	2					
30						
10						
0 <mark></mark>	6100.	11200.	16	300.	21400.	26500
			uency (MHz)			
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level	(	FS	@3m	
(MHz) 4874.00	(PK/QP/AV) Peak	(dBµV) 36.41	(dB) 5.92	(dBµV/m) 42.33	(dBµV/m) 74.00	(dB) -31.67
7311.00	Peak	32.12	13.26	45.38	74.00	-28.62
N/A						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 43 / 51 Rev.: 00

Fest Mode	IEEE 802.	11n HT20 Mid ( 2TX	CH T	emp/Hum	23.8(℃)/ 63%RF		
Test Item	ŀ	larmonic	-	Fest Date	July 1	July 14, 2021	
Polarize	F	lorizontal	Tes	st Engineer	Ra	ay Li	
Detector		Peak					
120 Level (dBuV	/m)						
90							
70							
50	1 2						
30							
10							
0 <sup>1</sup> 1000	6100.	11200. Fred	16 Juency (MHz)	300.	21400.	26500	
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
4874.00	Peak	38.04	5.92	43.96	74.00	-30.04	
7311.00	Peak	31.66	13.26	44.92	74.00	-29.08	
N/A							

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 44 / 51 Rev.: 00

Test Mode	IEEE 802.1	In HT20 High 2TX	CH Te	emp/Hum	<b>23.8(</b> ℃	)/ 63%RH
Test Item	Ha	armonic	Т	Test Date Ju		4, 2021
Polarize	l V	Vertical			Ra	ay Li
Detector		Peak				
120	//m)					
110						
90						
70						
50	1 2					
30						
10						
0 <mark></mark>	6100.	11200. Fre	163 equency (MHz)	300.	21400.	26500
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
(MHz)	Mode (PK/QP/AV)	Reading Level (dBµV)	(dB)	FS (dBµV/m)	@3m (dBµV/m)	(dB)
4924.00	Peak	35.22	6.37	41.59	74.00	-32.41

Remark:

7386.00

N/A

Peak

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

31.44

2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

13.07

44.51

74.00

-29.49



Page: 45 / 51 Rev.: 00

Fest Mode		1n HT20 High 2TX		emp/Hum	23.8(°C)/ 63%RF	
Test Item	F	larmonic	Т	est Date	July 1	4, 2021
Polarize	Н	orizontal	Tes	t Engineer	Ra	ay Li
Detector		Peak				
120 Level (dBuV	/m)					
90						
70						
50	2					
30						
10			       			
0 1000	6100 <b>.</b>	11200. Fre	16: quency (MHz)	300.	21400.	26500
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
4924.00	Peak	41.06	6.37	47.43	74.00	-26.57
7386.00	Peak	31.72	13.07	44.79	74.00	-29.21
	1	1				

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 46 / 51 Rev.: 00

Test Mode	IEEE 802.	11n HT40 Low	CH T	emp/Hum	<b>23.0(</b> ℃)	)/ 50%RH
Test Item	ŀ	Harmonic	-	Test Date	June 23, 2021	
Polarize		Vertical	Te	st Engineer	Ra	ay Li
Detector		Peak				
120 Level (dBuV	/m)			; ;	iiii	
110				· · · · · · · · · · · · · · · · · · ·		
90						
70						
50	1					
30						
10						
0 <mark></mark>	6100.	11200.	46	300.	21400.	26500
1000	0100.		quency (MHz)		21400.	20300
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
4844.00	Peak	33.54	5.73	39.27	74.00	-34.73
7266.00	Peak	31.65	13.21	44.86	74.00	-29.14
N/A						
					<u>                                     </u>	

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz,the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 47 / 51 Rev.: 00

Test Mode		11n HT40 Low		emp/Hum	23.0(°C)/ 50%RI	
Test Item		Harmonic		Fest Date	June 23, 2021	
Polarize	ŀ	Iorizontal	Te	st Engineer	Ra	iy Li
Detector		Peak				
120 Level (dBuV/m)						
110						
90			           			
70						
50	-12					
30						
10						
0 <mark></mark>	6100.	11200. Freq	16 Juency (MHz)	300.	21400.	26500
-	<b>.</b>					·
Freq. (MHz)	Detector Mode (PK/QP/AV)	Spectrum Reading Level (dBµV)	Factor (dB)	Actual FS (dBµV/m)	Limit @3m (dBµV/m)	Margin (dB)
4844.00	Peak	41.04	5.73	46.77	74.00	-27.23
7266.00	Peak	31.90	13.21	45.11	74.00	-28.89
N/A						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 48 / 51 Rev.: 00

Test Mode		.11n HT40 Mid		emp/Hum	<b>23.0(°</b> ℃)	/ 50%RF
Test Item		Harmonic		Test Date		3, 2021
Polarize		Vertical	Te	st Engineer	Ra	ıy Li
Detector		Peak				
120 Level (dBuV	//m)					
110						
90	· · · · · · · · · · · · · · · · · · ·					
70						
50	1 2					
30						
10						
0 <mark></mark>	<u>6100.</u>	11200.	: 16	<b>300.</b>	21400.	26500
		Free	quency (MHz)			
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	J
(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
4874.00	Peak	36.00	5.92	41.92	74.00	-32.08
7311.00	Peak	31.50	13.26	44.76	74.00	-29.24
N/A						

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
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Page: 49 / 51 Rev.: 00

Test Mode	IEEE 802.	IEEE 802.11n HT40 Mid CH		emp/Hum	23.0(°C)/ 50%RH	
Test Item	ŀ	Harmonic		Test Date	June 23, 2021	
Polarize	F	Horizontal		st Engineer	Ra	ıy Li
Detector		Peak				
120	/m)					
110						
90						
70						
50	2					
30						
10	· · · · · · · · · · · · · · · · · · ·					
0 <mark></mark> 1000	6100.	11200. Free	16 quency (MHz)	300.	21400.	26500
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
4874.00	Peak	42.46	5.92	48.38	74.00	-25.62
7311.00	Peak	32.06	13.26	45.32	74.00	-28.68
N/A						
	<u> </u>					

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 50 / 51 Rev.: 00

est Mode	IEEE 802.11n HT40 High CH			Temp/Hum	23.0(°C)/ 50%RH	
Test Item	Harmonic			Test Date	June 23, 2021	
Polarize	Vertical		Te	est Engineer	Ray Li	
Detector	Peak					
120 Level (dBuV	//m)					
110						
90						
70						
50	1 2					
30						
10	i	· · · · · · · · · · · · · · · · · · ·				
0 <mark>1000</mark>	6100.	11200. Fred	1 (uency (MHz)	6300.	21400.	26500
				-		
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
4904.00	Peak	35.35	6.17	41.52	74.00	-32.48
7356.00	Peak	31.65	13.05	44.70	74.00	-29.30
N/A						
		<u> </u>		I	I	

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Page: 51 / 51 Rev.: 00

est Mode		IEEE 802.11n HT40 High CH			23.0(°C)/ 50%RH	
Test Item		Harmonic		Test Date	June 23, 2021	
Polarize	F	Horizontal		st Engineer	Ray Li	
Detector		Peak				
120 Level (dBuV	m)					
110						
90				· · · · · · · · · · · · · · · · · · ·		
70						
50	1 2					
30						
10						
0 <mark></mark> 1000	6100.	6100. 11200. Frequency (N		5300.	21400.	26500
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
(MHz)	(PK/QP/AV)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
4904.00	Peak	35.93	6.17	42.10	74.00	-31.90
7356.00	Peak	31.34	13.05	44.39	74.00	-29.61
N/A						

## Remark:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

- End of Test Report -