

FCC RF Exposure Exemption report

for

Baby Monitoring Camera

Model No.: C01

FCC ID: 2BFBC-C01

of

Applicant: PROJECT MONITOR INC

Address: 4516 Lovers Lane STE 392 DALLAS Texas United States 75225

Tested and Prepared

by

Worldwide Testing Services (Taiwan) Co., Ltd.

FCC Registration No.: TW1072, TW1140, TW1146, TW1477, TW0037

Industry Canada filed test laboratory Reg. No.: 20037, 31634



Report No.: W6M22408-23658-EE

6F, NO. 58, LANE 188, RUEY-KUANG RD., NEIHU TAIPEI 114, TAIWAN, R.O.C.
TEL: 886-2-66068877 FAX: 886-2-66068879 E-mail: wtst@wtst-lab.com

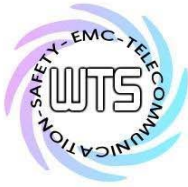
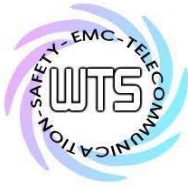


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Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22408-23658-EE

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1 General Information

1.1 Notes

The purpose of conformity testing is to increase the probability of adherence to the essential requirements or conformity specifications, as appropriate.

The complexity of the technical specifications, however, means that full and thorough testing is impractical for both technical and economic reasons.

Furthermore, there is no guarantee that a test sample which has passed all the relevant tests conforms to a specification.

Neither is there any guarantee that such a test sample will interwork with other genuinely open systems.

The existence of the tests nevertheless provides the confidence that the test sample possesses the qualities as maintained and that its performance generally conforms to representative cases of communications equipment.

Laboratory disclaimer-

1. The test results of this test report relate exclusively to the item tested as specified in 1.5.
2. The test report may only be reproduced or published in full.
3. Reproduction or publication of extracts from the report requires the prior written approval of the Worldwide Testing Services(Taiwan) Co., Ltd.
4. Antenna gain is provided by applicant and laboratory issue relevant data and results.

Tester:

September 02, 2024

Ken Kang

Date

WTS-Lab.

Name

Signature

Technical responsibility for area of testing:

September 02, 2024

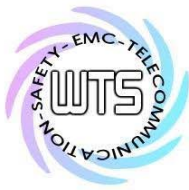
Kevin Wang

Date

WTS

Name

Signature



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22408-23658-EE

FCC ID: 2BFBC-C01

1.2 Testing laboratory

1.2.1 Location

10m OATS

No.5-1, Lishui, Shuang Sing Village, Wanli Dist.,
New Taipei City 207, Taiwan (R.O.C.)

Xizhi Lab

No. 99, Sec. 1, Balian Rd., Xizhi Dist.,
New Taipei City 221032, Taiwan (R.O.C.)

Worldwide Testing Services (Taiwan) Co., Ltd.

6F., No. 58, Ln. 188, Ruiguang Rd., Neihu Dist.,

Taipei City 114, Taiwan (R.O.C.)

Tel: 886-2-6606-8877

1.2.2 Details of accreditation status

Accredited testing laboratory

FCC filed test laboratory Reg. No.: TW1072, TW1140, TW1146, TW1477, TW0037

Industry Canada filed test laboratory Reg. No.: 20037, 31634

Test location, where different from Worldwide Testing Services (Taiwan) Co., Ltd. :

Name: ./.

Accredited no.: ./.

Street: ./.

Town: ./.

Country: ./.

1.3 Application details

Approval holder

Name: PROJECT MONITOR INC

Street: 4516 Lovers Lane STE 392

Town: DALLAS Texas 75225

Country: United States

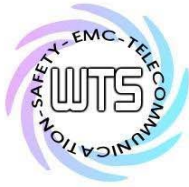
Manufacturer: (if applicable)

Name: ./.

Street: ./.

Town: ./.

Country: ./.



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22408-23658-EE

FCC ID: 2BFBC-C01

Test date

Date of receipt of test item: August 14, 2024

Date of test: from August 15, 2024 to August 30, 2024

1.4 General information of Test item

Type of test item: Baby Monitoring Camera

Model no.: C01

Multi-listing model no.: ./.

Brand name: Harbor

Power supply: Adaptor (I/P: 100-240V~50/60Hz, 0.5A Max
O/P: 5.0V=3.0A, 9.0V=2.22A, 12.0V=1.67A, 20.0W)

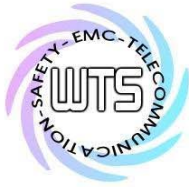
Antenna type: Dipole antenna

Antenna gain: WLAN 2.4G&BLE: 0.7 dBi
WLAN 5G: Band 1: 6.2 dBi 、 Band 2: 6.2 dBi 、
Band 3: 5.9 dBi 、 Band 4: 4.2 dBi

Technical data

WLAN 2.4G & BLE

Mode	Channel	Conducted Power (dBm)
802.11b	Ch 1 : 2412 MHz	10.62
	Ch 6 : 2437 MHz	11.73
	Ch 11 : 2462 MHz	12.24
802.11g	Ch 1 : 2412 MHz	14.12
	Ch 6 : 2437 MHz	15.40
	Ch 11 : 2462 MHz	16.26
802.11n20MHz	Ch 1 : 2412 MHz	12.91
	Ch 6 : 2437 MHz	15.88
	Ch 11 : 2462 MHz	16.61
BLE 1M	Ch 0 : 2402 MHz	-2.45
	Ch 19 : 2440 MHz	0.10
	Ch 39 : 2480 MHz	-0.26
BLE 2M	Ch 0 : 2402 MHz	-2.49
	Ch 19 : 2440 MHz	0.14
	Ch 39 : 2480 MHz	-0.28



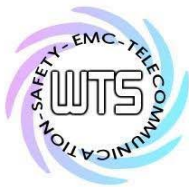
Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22408-23658-EE

FCC ID: 2BFBC-C01

WLAN 5G

Band	Mode	Channel	Conducted power (dBm)
NII-1	802.11a	Ch 36 : 5180 MHz	9.70
		Ch 44 : 5220 MHz	15.07
		Ch 48 : 5240 MHz	15.32
	802.11n 20MHz	Ch 36 : 5180 MHz	11.45
		Ch 44 : 5220 MHz	14.60
		Ch 48 : 5240 MHz	14.86
	802.11n 40MHz	Ch 38 : 5190 MHz	11.33
		Ch 46 : 5230 MHz	14.78
	802.11ac 80MHz	Ch 42 : 5210 MHz	11.38
NII-2A	802.11a	Ch 52 : 5260 MHz	15.69
		Ch 60 : 5300 MHz	15.99
		Ch 64 : 5320 MHz	10.80
	802.11n 20MHz	Ch 52 : 5260 MHz	15.29
		Ch 60 : 5300 MHz	15.62
		Ch 64 : 5320 MHz	12.14
	802.11n 40MHz	Ch 54 : 5270 MHz	15.43
		Ch 62 : 5310 MHz	10.96
	802.11ac 80MHz	Ch 58 : 5290 MHz	10.70
NII-2C	802.11a	Ch 100 : 5500 MHz	14.01
		Ch 120 : 5600 MHz	13.00
		Ch 140 : 5700 MHz	11.58
	802.11n 20MHz	Ch 100 : 5500 MHz	13.52
		Ch 120 : 5600 MHz	12.82
		Ch 140 : 5700 MHz	11.72
	802.11n 40MHz	Ch 102 : 5510 MHz	11.41
		Ch 118 : 5590 MHz	12.82
NII-3	802.11a	Ch 134 : 5670 MHz	11.74
		Ch 106 : 5530 MHz	11.73
		Ch 122 : 5610 MHz	12.56
	802.11n 20MHz	Ch 149 : 5745 MHz	15.47
		Ch 157 : 5785 MHz	15.92
		Ch 165 : 5825 MHz	15.82
	802.11n 40MHz	Ch 149 : 5745 MHz	15.26
		Ch 157 : 5785 MHz	15.48
		Ch 165 : 5825 MHz	15.57
	802.11ac 80MHz	Ch 151 : 5755 MHz	15.49
		Ch 159 : 5795 MHz	15.84
	802.11ac 80MHz	Ch 155 : 5775 MHz	15.01



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22408-23658-EE

FCC ID: 2BFBC-C01

Operation modes: Duplex

Modulation type: GFSK

Sample no.: #01

Classification:

Fixed Device	☐
Mobile Device (Human Body distance > 20cm)	☒
Portable Device (Human Body distance < 20cm)	☐

1.6 Duty cycle and factor

The duty factor is computed as $[10 \log (1 / D)]$, where D is the duty cycle.

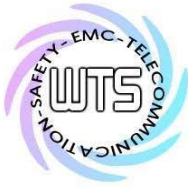
WLAN 2.4G & BLE

Mode	Ton (ms)	Ton+Toff (ms)	Duty cycle (%)	Duty Factor (dB)	1/T - VBW (KHz)
802.11b	8.46154	8.52564	99.25%	0.03	0.01
802.11g	1.41667	1.50641	94.04%	0.27	0.71
802.11n 20M	1.33974	1.42308	94.14%	0.26	0.75

Mode	Ton (ms)	Ton+Toff (ms)	Duty cycle (%)	1/T - VBW (kHz)
BLE 1M	2.17308	2.51923	86.26%	0.46
BLE 2M	1.11539	1.89103	58.98%	0.90

WLAN 5G

Mode	Ton (ms)	Ton+Toff (ms)	Duty cycle (%)	Duty Factor (dB)	1/T - VBW (kHz)
802.11a	1.429	1.506	94.89%	0.23	0.70
802.11n20	1.333	1.417	94.12%	0.26	0.75
802.11n40	0.679	0.763	89.08%	0.50	1.47
802.11ac80	0.346	0.429	80.60%	0.94	2.89

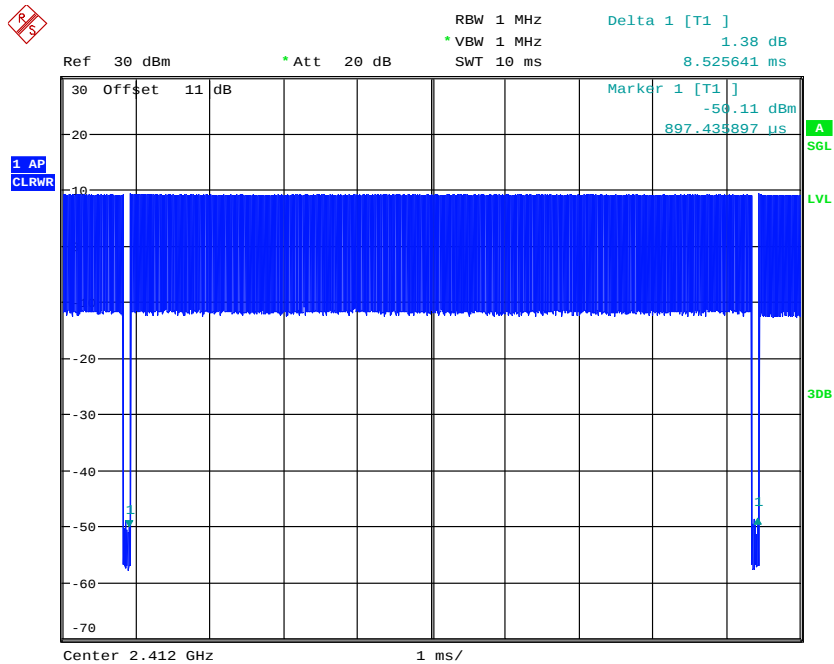


Registration number: W6M22408-23658-EE

FCC ID: 2BFBC-C01

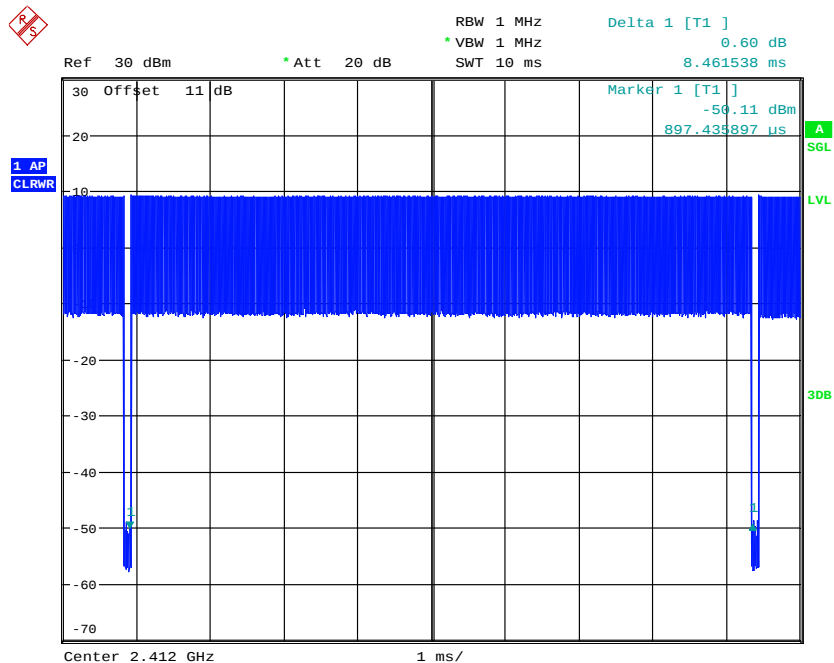
Duty cycle plot

WLAN 2.4G



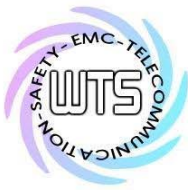
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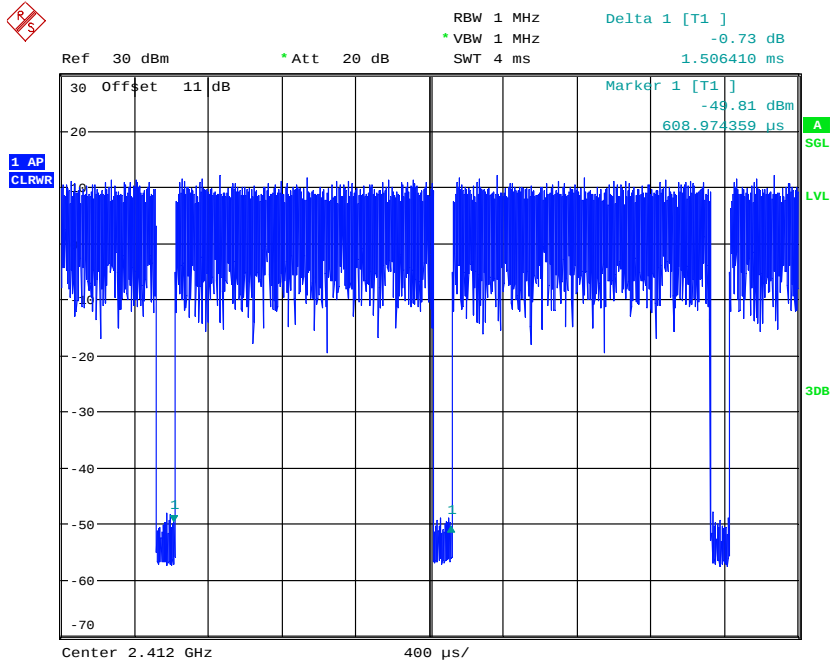
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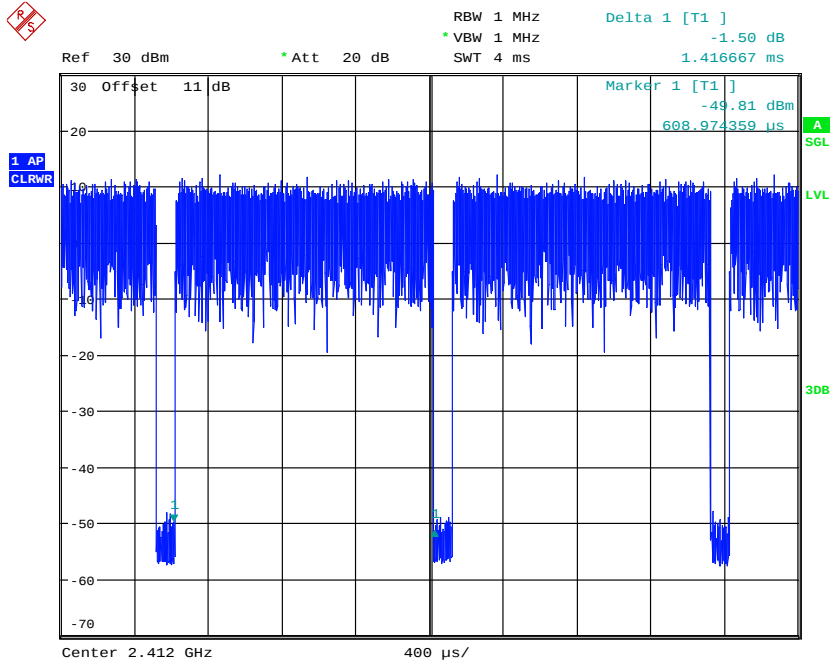


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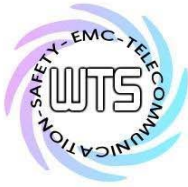
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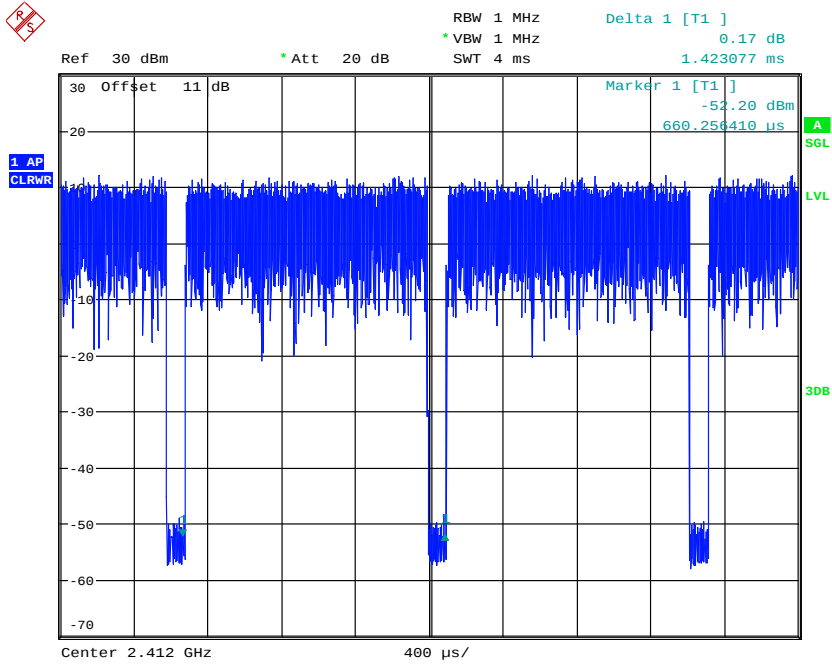


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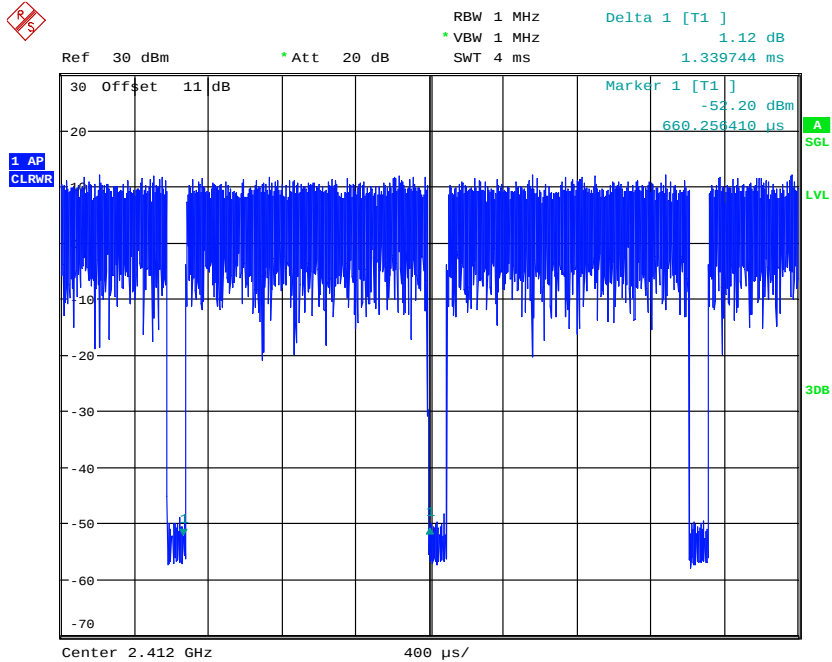


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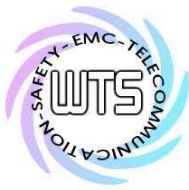
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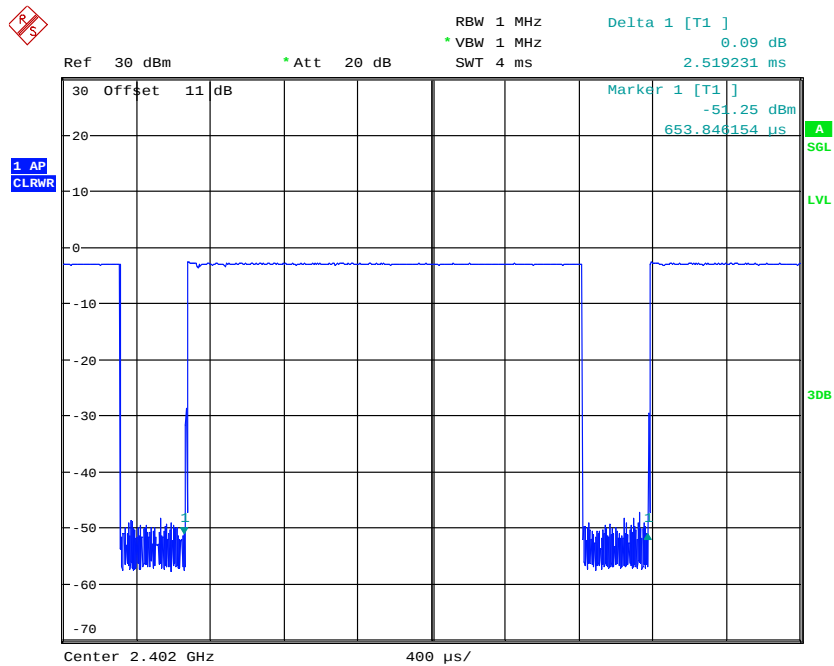
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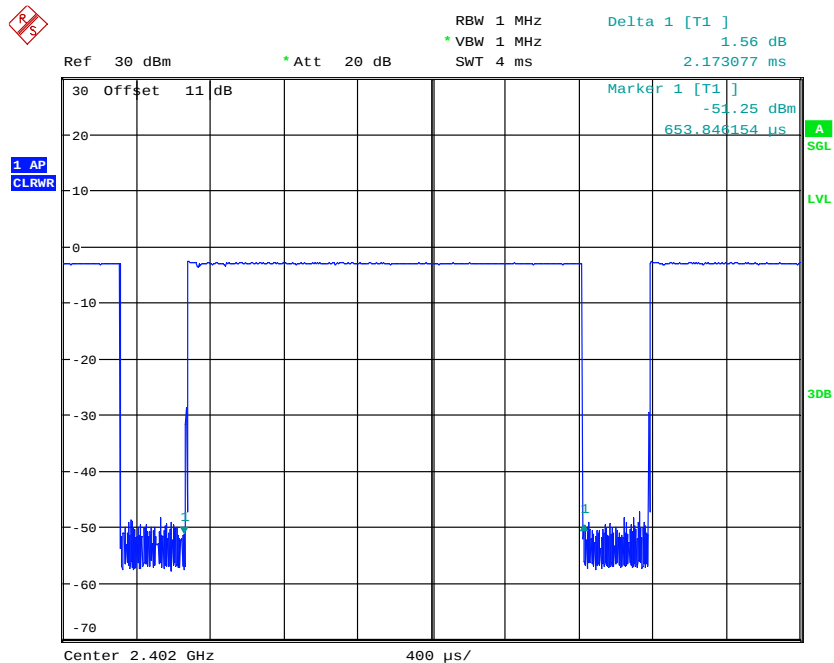
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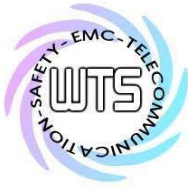
BLE



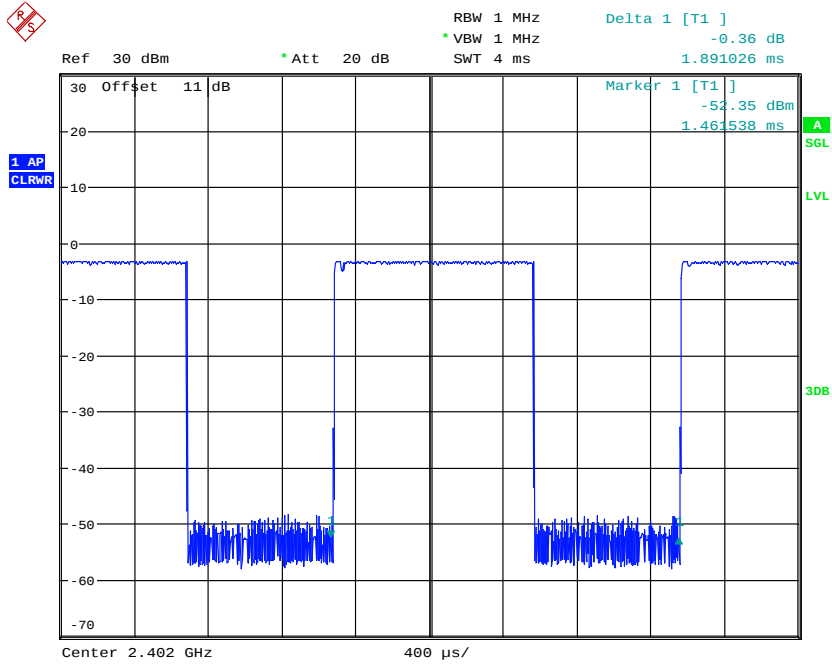
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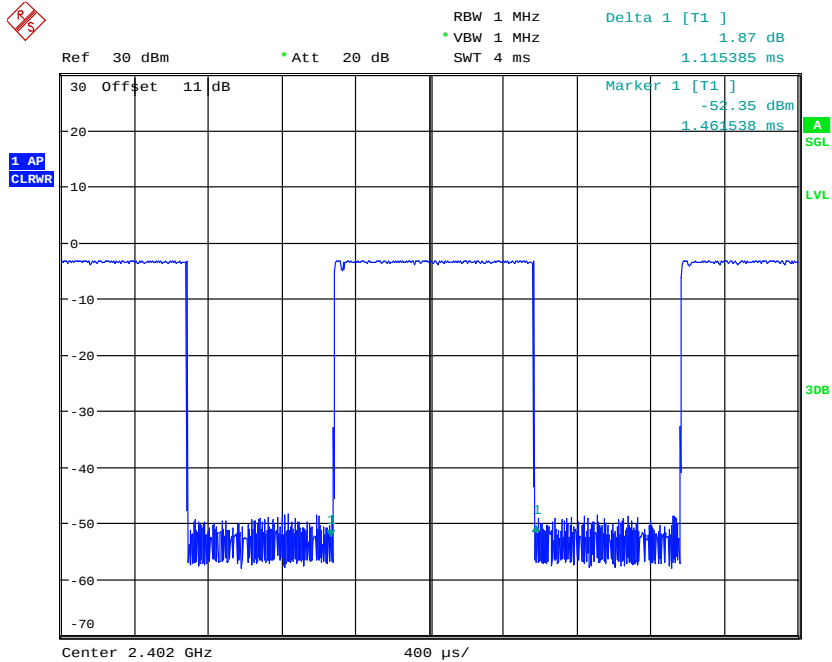
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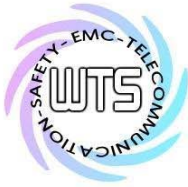
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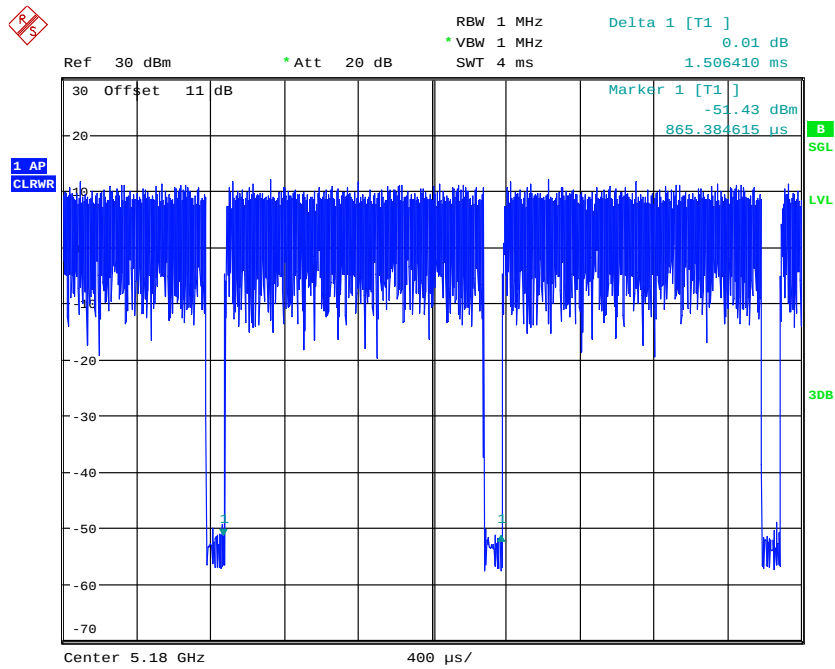


Worldwide Testing Services(Taiwan) Co., Ltd.

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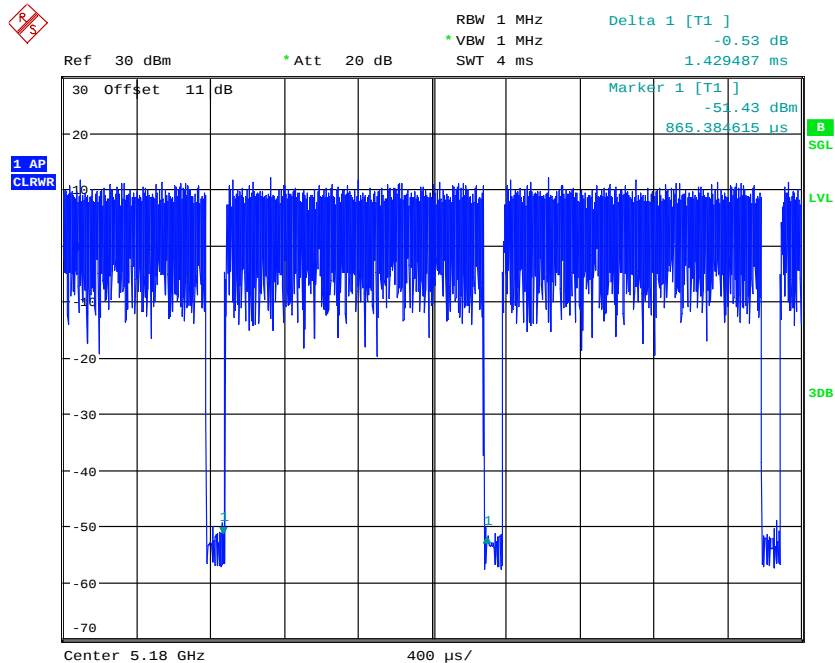
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WLAN 5G



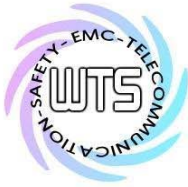
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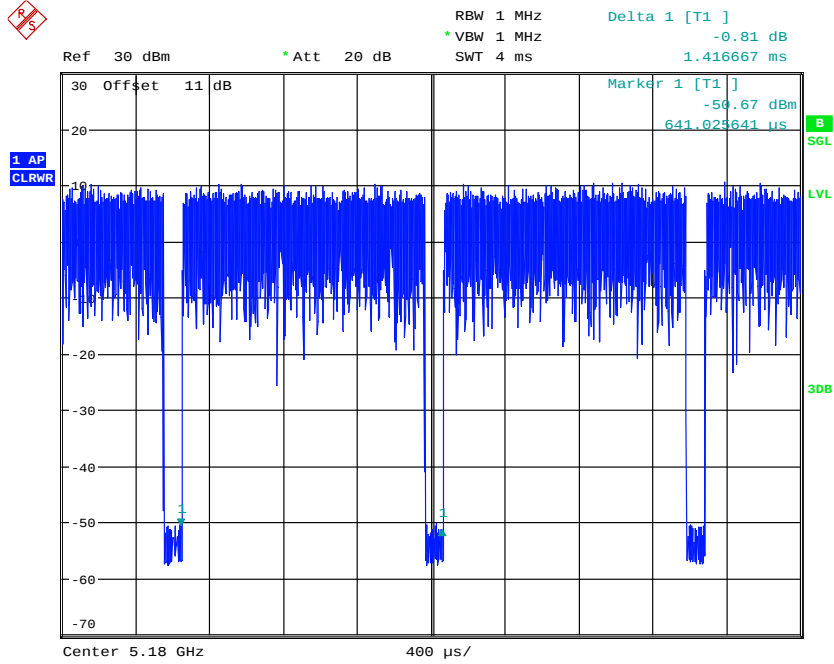


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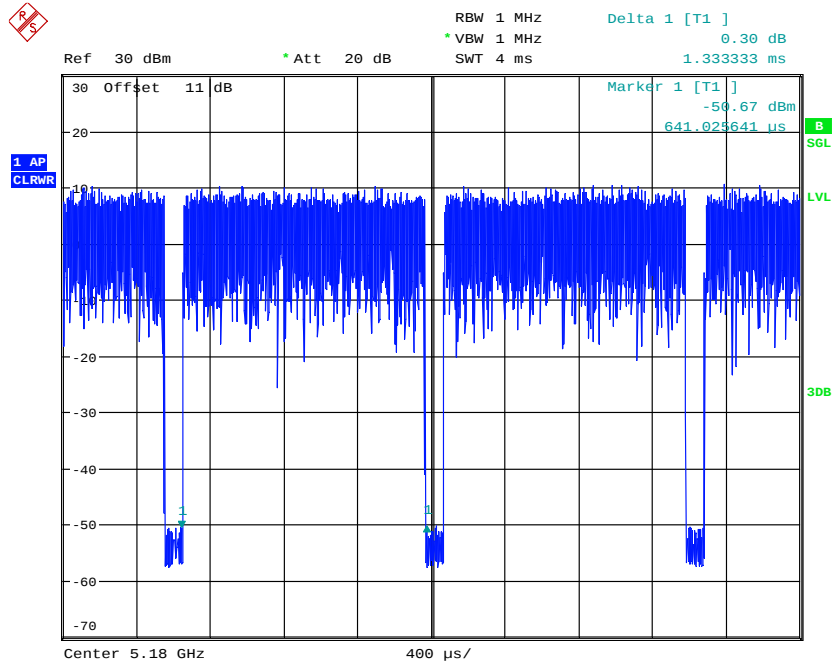
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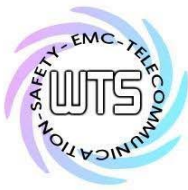
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FCC ID: 2BFBC-C01



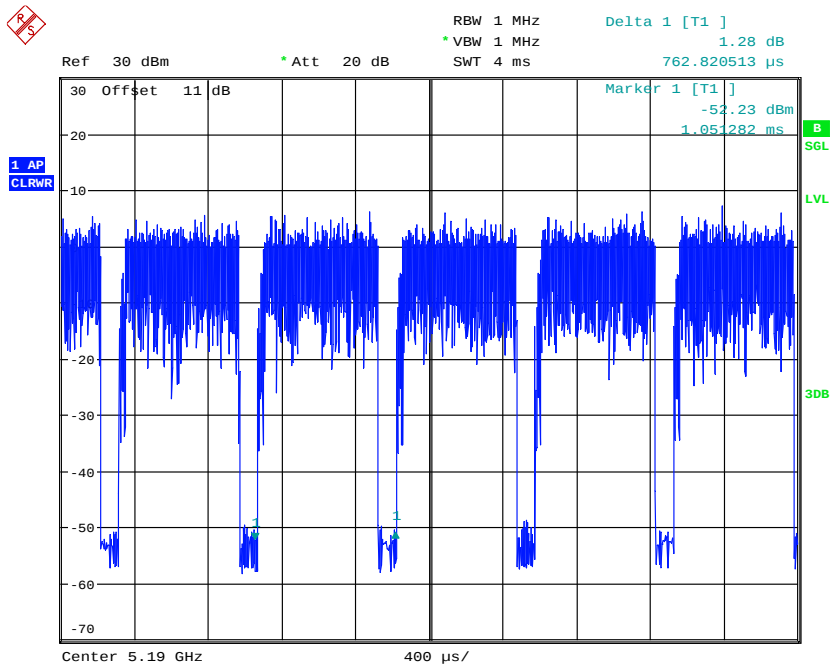
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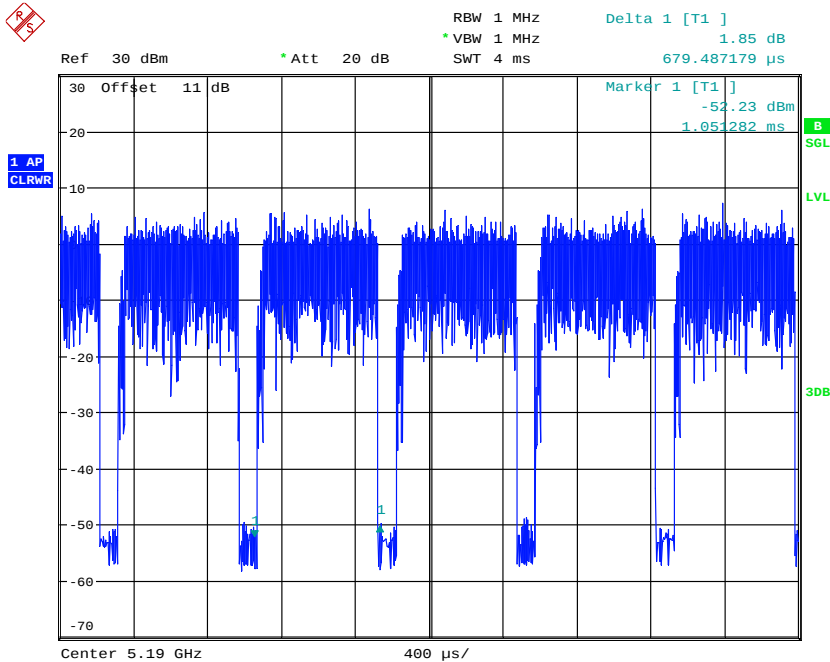
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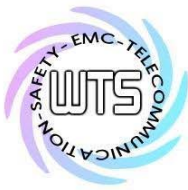
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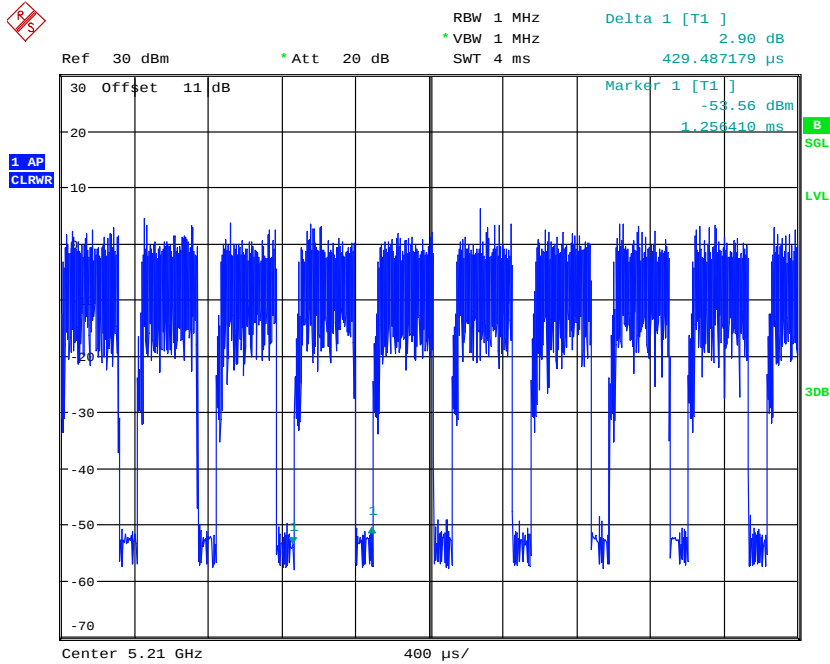
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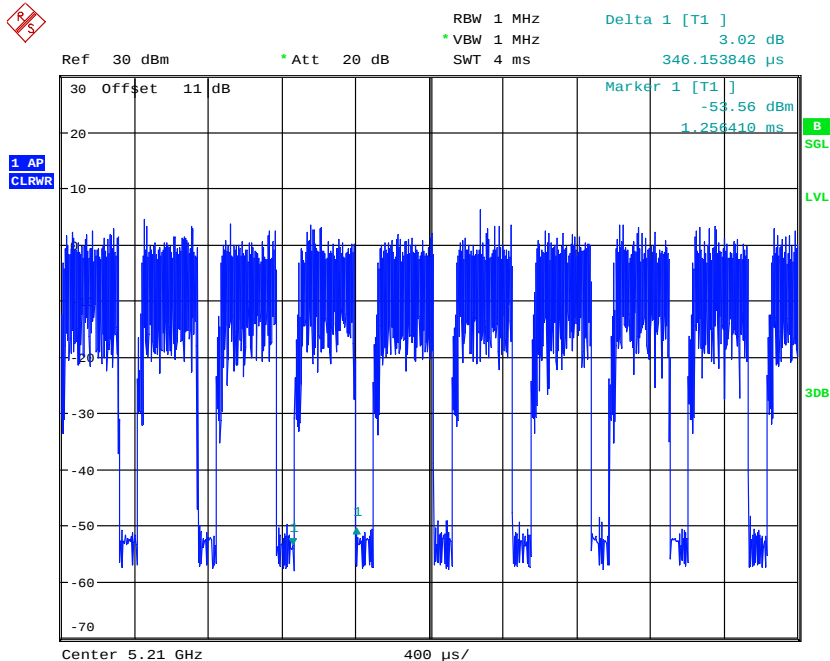
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FCC ID: 2BFBC-C01



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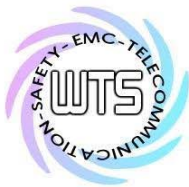


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1.7 Test standards

FCC KDB Publication

447498 D01 General RF Exposure Guidance v06



Registration number: W6M22408-23658-EE

FCC ID: 2BFBC-C01

2 Test configuration

2.1 Test environment

Relative humidity content: 20 ... 75 %

Air pressure: 86 ... 103 kPa

Extreme conditions parameters: ./.

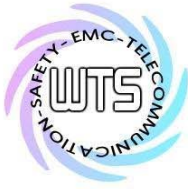
2.2 Measurement uncertainty

Test item Name	Uncertainty
Estimation Result of Uncertainty of Conducted Output Power Measurement (Peak Output Power (transmitter))	Expanded Uncertainty : 1.64 dB

The decision rule is: Measurement uncertainty is not included in the calculation of test results.

2.3 Test Equipment List

Code No.	Test equipment	Code No.	Serial No.	Brand	Cal. Date	Next Cal. Date
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2024/2/16	2025/2/15
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2024/3/7	2025/3/6
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2024/2/16	2025/2/15
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 (S_Cable 9)	279067	HUBER+SUHNER	2024/2/16	2025/2/15



Registration number: W6M22408-23658-EE

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3 Equivalent Isotropic Radiated Power (EIRP)

FCC Rule: 15.247

EIRP = max. conducted output power + antenna gain

BLE

EIRP = 0.14 dBm + 0.7 dBi [antenna gain claimed by manufacturer] = 0.84 dBm = 1.2134 mW

WLAN 2.4G

EIRP = 16.61 dBm + 0.7 dBi [antenna gain claimed by manufacturer] = 17.31 dBm = 53.8270 mW

FCC Rule: 15.407(b)(3)

NII-1

Test exclusion

= max. conducted output power + antenna gain

= 15.32 dBm + 6.2 dBi [antenna gain claimed by manufacturer] = 21.52 dBm = 141.9058 mW

NII-2A

Test exclusion

= max. conducted output power + antenna gain

= 15.99 dBm + 6.2 dBi [antenna gain claimed by manufacturer] = 22.19 dBm = 165.5770 mW

NII-2C

Test exclusion

= max. conducted output power + antenna gain

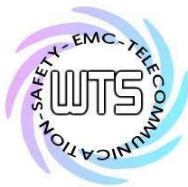
= 14.01 dBm + 5.9 dBi [antenna gain claimed by manufacturer] = 19.91 dBm = 97.9490 mW

NII-3

Test exclusion

= max. conducted output power + antenna gain

= 15.92 dBm + 4.2 dBi [antenna gain claimed by manufacturer] = 20.12 dBm = 102.8016 mW



Registration number: W6M22408-23658-EE

FCC ID: 2BFBC-C01

3.1 Exemption Limits for Routine Evaluation according to 47 CFR FCC Part 2 Subpart J, section 2.1091

FCC OET Bulletin 65 Edition 97.01 determines the equations for predicting RF fields and applicable limits.

The prediction for power density in the far-field but will over-predict power density in the near field, where it could be used for walking a “worst case” or conservative prediction.

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 20 cm normally can be maintained between the user and the device.

MPE Calculation Method

(A) Limits for Occupational/Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f ²)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

(B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz

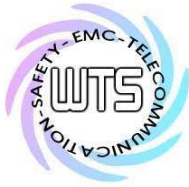
*Plane-wave equivalent power density

E = Electric field (V/m) P = output power (W) G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2} \text{ mW/cm}^2.$$



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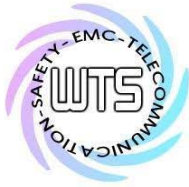
FCC ID: 2BFBC-C01

WLAN 2.4G & BLE

Band	Mode	Channel	Conducted power with DF (dBm)	Antenna gain (dBi)	Power density (mW/cm ²)	Limit (mW/cm ²)	Ratio
2.4GHz	802.11b	Ch 1: 2412 MHz	10.62	-	-	-	-
		Ch 6: 2437 MHz	11.73	-	-	-	-
		Ch 11: 2462 MHz	12.24	0.7	0.0039	1	0.0039
	802.11g	Ch 1: 2412 MHz	14.12	-	-	-	-
		Ch 6: 2437 MHz	15.40	-	-	-	-
		Ch 11: 2462 MHz	16.26	0.7	0.0099	1	0.0099
	802.11n 20MHz	Ch 1: 2412 MHz	12.91	-	-	-	-
		Ch 6: 2437 MHz	15.88	-	-	-	-
		Ch 11: 2462 MHz	16.61	0.7	0.0107	1	0.0107
	BLE 1M	Ch 0 : 2402 MHz	-2.45	-	-	-	-
		Ch 19 : 2440 MHz	0.10	0.7	0.0002	1	0.0002
		Ch 39 : 2480 MHz	-0.26	-	-	-	-
	BLE 2M	Ch 0 : 2402 MHz	-2.49	-	-	-	-
		Ch 19 : 2440 MHz	0.14	0.7	0.0002	1	0.0002
		Ch 39 : 2480 MHz	-0.28	-	-	-	-

WLAN 5G

Band	Mode	Channel	Conducted power with DF (dBm)	Antenna gain (dBi)	Power density (mW/cm ²)	Limit (mW/cm ²)	Ratio
NII-1	802.11a	Ch 36: 5180 MHz	9.70	-	-	-	-
		Ch 44: 5220 MHz	15.07	-	-	-	-
		Ch 48: 5240 MHz	15.32	6.2	0.0282	1	0.0282
	802.11n 20MHz	Ch 36: 5180 MHz	11.45	-	-	-	-
		Ch 44: 5220 MHz	14.60	-	-	-	-
		Ch 48: 5240 MHz	14.86	6.2	0.0254	1	0.0254
	802.11n 40MHz	Ch 38: 5190 MHz	11.33	-	-	-	-
		Ch 46: 5230 MHz	14.78	6.2	0.025	1	0.025
	802.11ac 80MHz	Ch 42: 5210 MHz	11.38	6.2	0.0114	1	0.0114
NII-2A	802.11a	Ch 52: 5260 MHz	15.69	-	-	-	-
		Ch 60: 5300 MHz	15.99	6.2	0.0329	1	0.0329
		Ch 64: 5320 MHz	10.80	-	-	-	-
	802.11n 20MHz	Ch 52: 5260 MHz	15.29	-	-	-	-
		Ch 60: 5300 MHz	15.62	6.2	0.0303	1	0.0303
		Ch 64 : 5320 MHz	12.14	-	-	-	-
	802.11n	Ch 54: 5270 MHz	15.43	6.2	0.0289	1	0.0289



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	40MHz	Ch 62: 5310 MHz	10.96	-	-	-	-
	802.11ac 80MHz	Ch 58: 5290 MHz	10.70	6.2	0.0097	1	0.0097
NII-2C	802.11a	Ch 100: 5500 MHz	14.01	5.9	0.0195	1	0.0195
		Ch 120: 5600 MHz	13.00	-	-	-	-
		Ch 140: 5700 MHz	11.58	-	-	-	-
	802.11n 20MHz	Ch 100: 5500 MHz	13.52	5.9	0.0174	1	0.0174
		Ch 120: 5600 MHz	12.82	-	-	-	-
		Ch 140: 5700 MHz	11.72	-	-	-	-
	802.11n 40MHz	Ch 102: 5510 MHz	11.41	-	-	-	-
		Ch 118: 5590 MHz	12.82	5.9	0.0148	1	0.0148-
		Ch 134: 5670 MHz	11.74	-	-	-	-
	802.11ac 80MHz	Ch 106: 5530 MHz	11.73	-	-	-	-
		Ch 122: 5610 MHz	12.56	5.9	0.0139	1	0.0139
NII-3	802.11a	Ch 149: 5745 MHz	15.47	-	-	-	-
		Ch 157: 5785 MHz	15.92	4.2	0.0205	1	0.0205
		Ch 165: 5825 MHz	15.82	-	-	-	-
	802.11n 20MHz	Ch 149: 5745 MHz	15.26	-	-	-	-
		Ch 157: 5785 MHz	15.48	-	-	-	-
		Ch 165: 5825 MHz	15.57	4.2	0.0189	1	0.0189
	802.11n 40MHz	Ch 151: 5755 MHz	15.49	-	-	-	-
		Ch 159: 5795 MHz	15.84	4.2	0.0201	1	0.0201
	802.11ac 80MHz	Ch 155: 5775 MHz	15.01	4.2	0.0166	1	0.0166

From the peak EUT RF output power, the minimum mobile separation distance, $d = 20$ cm, as well as the gain of the used antenna, the RF power density can be obtained.