

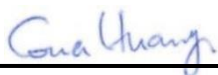
RF EXPOSURE EVALUATION REPORT

FCC ID : SWX-U5GMO
Equipment : UniFi 5G Max Outdoor
Brand Name : UBIQUITI
Model Name : U5G-Max-Outdoor
Applicant : Ubiquiti Inc.
685 Third Avenue, New York, New York 10017, USA
Manufacturer : Ubiquiti Inc.
685 Third Avenue, New York, New York 10017, USA
Standard : 47 CFR Part 2.1091

We, SPORTON INTERNATIONAL INC has been evaluated this product in accordance with 47 CFR Part2.1091 and it complies with applicable limit.

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 3786) and the FCC designation No. TW3786 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC evaluation.

The results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Laboratory, the test report shall not be reproduced except in full.



Approved by: Cona Huang / Deputy Manager



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History of this test report

Report No.	Version	Description	Issued Date
FA543009	Rev. 01	Initial issue of report	Sep. 04, 2025

**1. Description of Equipment Under Test (EUT)**

Product Feature & Specification	
Equipment Type	UniFi 5G Max Outdoor
Brand Name	UBIQUITI
Model Name	U5G-Max-Outdoor
FCC ID	SWX-U5GMO
Wireless Technology and Frequency Range	Bluetooth: 2400 MHz ~ 2483.5 MHz
Mode	Bluetooth LE

Integrated WWAN module	
FCC ID	N7NEM92
Wireless Technology and Frequency Range	WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 14: 788 MHz ~ 798 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 42: 3450 MHz ~ 3550 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz 5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n12 : 699 MHz ~ 716 MHz 5G NR n13: 777 MHz ~ 787 MHz 5G NR n14 : 788 MHz ~ 798 MHz 5G NR n25 : 1850 MHz ~ 1915 MHz 5G NR n26 : 814 MHz ~ 849 MHz 5G NR n30 : 2305 MHz ~ 2315 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n48 : 3550 MHz ~ 3700 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n70 : 1695 MHz ~ 1710 MHz 5G NR n71 : 663 MHz ~ 698 MHz 5G NR n77: 3700 MHz ~ 3980 MHz, 3450MHz ~ 3550MHz 5G NR n78: 3700 MHz ~ 3800 MHz, 3450MHz ~ 3550MHz
Mode	RMC 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+ (16QAM uplink) LTE: QPSK, 16QAM, 64QAM 5G NR: DFT-s-OFDM/CP-OFDM, Pi/2 BPSK/QPSK/16QAM/64QAM/256QAM

Reviewed by: Jason Wang**Report Producer: Paula Chen**

2. Maximum RF average output power among production units

Mode		Maximum Average power(dBm)
WCDMA	Band 2	24.5
	Band 4	24.5
	Band 5	24.5
LTE	Band 2	24.5
	Band 4	24.5
	Band 5	24.5
	Band 7	24
	Band 12	24
	Band 13	24.5
	Band 14	24
	Band 17	24
	Band 25	24
	Band 26	24
	Band 41_PC3	24
	Band 41_PC2	26
	Band 42_PC3	24
	Band 42_PC2	26
	Band 48	24
	Band 66	24.5
	Band 71	24
5G NR	n2	25.5
	n5	25.5
	n7	25.5
	n12	25.5
	n13	25.5
	n14	25.5
	n25	25.5
	n26	25.5
	n30	25.5
	n41_PC3	25.5
	n41_PC2	27.5
	n48	25.5
	n66	25.5
	n70	25.5
	n71	25.5
	n77_PC3	25.5
	n77_PC2	27.5
	n78_PC3	25.5
	n78_PC2	27.5

Band / Mode	Average Power (dBm)
	LE
Bluetooth	8.03



3. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
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				
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

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna

4. Radio Frequency Radiation Exposure Evaluation

4.1. Standalone Power Density Calculation

Band	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum PG (mW)	Power Density at 20cm (mW/cm ²)	Limit (mW/cm ²)	Power Density / Limit
WCDMA Band 2	3.50	24.50	28.0	630.96	0.126	1.000	0.126
WCDMA Band 4	3.90	24.50	28.4	691.83	0.138	1.000	0.138
WCDMA Band 5	2.30	24.50	26.8	478.63	0.095	0.536	0.178
LTE Band 2	3.50	24.50	28.0	630.96	0.126	1.000	0.126
LTE Band 4	3.90	24.50	28.4	691.83	0.138	1.000	0.138
LTE Band 5	2.30	24.50	26.8	478.63	0.095	0.549	0.173
LTE Band 7	4.70	24.00	28.7	741.31	0.148	1.000	0.148
LTE Band 12	3.20	24.00	27.2	524.81	0.104	0.466	0.224
LTE Band 13	2.40	24.50	26.9	489.78	0.097	0.518	0.188
LTE Band 14	2.40	24.00	26.4	436.52	0.087	0.525	0.165
LTE Band 17	3.90	24.00	27.9	616.60	0.123	0.469	0.261
LTE Band 25	3.50	24.00	27.5	562.34	0.112	1.000	0.112
LTE Band 26	2.50	24.00	26.5	446.68	0.089	0.543	0.164
LTE Band 41_PC3	5.10	24.00	29.1	812.83	0.162	1.000	0.162
LTE Band 41_PC2	5.10	26.00	31.1	1288.25	0.256	1.000	0.256
LTE Band 42_PC3	4.30	24.00	28.3	676.08	0.135	1.000	0.135
LTE Band 42_PC2	4.30	26.00	30.3	1071.52	0.213	1.000	0.213
LTE Band 48	-1.00	24.00	23.0	199.53	0.040	1.000	0.040
LTE Band 66	3.90	24.50	28.4	691.83	0.138	1.000	0.138
LTE Band 71	2.50	24.00	26.5	446.68	0.089	0.442	0.201
5G NR n2	3.50	25.50	29.0	794.33	0.158	1.000	0.158
5G NR n5	2.30	25.50	27.8	602.56	0.120	0.549	0.218
5G NR n7	4.70	25.50	30.2	1047.13	0.208	1.000	0.208
5G NR n12	3.20	25.50	28.7	741.31	0.148	0.466	0.317
5G NR n13	2.40	25.50	27.9	616.60	0.123	0.518	0.237
5G NR n14	2.40	25.50	27.9	616.60	0.123	0.525	0.234
5G NR n25	3.50	25.50	29.0	794.33	0.158	1.000	0.158
5G NR n26	2.50	25.50	28.0	630.96	0.126	0.543	0.231
5G NR n30	-1.50	25.50	24.0	251.19	0.050	1.000	0.050
5G NR n41_PC3	5.10	25.50	30.6	1148.15	0.229	1.000	0.229
5G NR n41_PC2	5.10	27.50	32.6	1819.70	0.362	1.000	0.362
5G NR n48	-2.50	25.50	23.0	199.53	0.040	1.000	0.040
5G NR n66	3.90	25.50	29.4	870.96	0.173	1.000	0.173
5G NR n71	2.50	25.50	28.0	630.96	0.126	0.422	0.298
5G NR n77_PC3	2.50	25.70	28.2	660.69	0.132	1.000	0.132
5G NR n77_PC2	2.50	27.50	30.0	1000.00	0.199	1.000	0.199
5G NR n78_PC3	2.50	25.70	28.2	660.69	0.132	1.000	0.132
5G NR n78_PC2	2.50	27.50	30.0	1000.00	0.199	1.000	0.199
Bluetooth	-11.0	8.03	-3.0	0.50	0.000	1.000	0.000

4.2. Collocated Power Density Calculation

WWAN Power Density / Limit	Bluetooth Power Density / Limit	Σ (Power Density / Limit) of WWAN+Bluetooth
0.362	0	0.362

Note:

1. The device support DPS (Dynamic Power Share) function to achieve higher uplink data rate keeping the total power unchanged in 5G NR NSA EN-DC mode according to 3GPP 38.213, when the equipment has a dynamic power sharing capability, it adjusts the LTE or NR transmission power so that the instantaneous total power does not exceed the specified value, when the maximum transmission power of NR (P_{LTE}, P_{NR}) and the specified total power (P_{total}) have been set and the instantaneous calculated total transmission power exceeds P_{total}, the NR transmission power is reduced so that the actual transmission power of the user equipment will not exceed P_{total} power. So if the LTE and NR standalone SAR is testing at total power level, the EN-DC combine MPE(LTE+NR) will not higher than the each standalone LTE and NR MPE, therefore, the simultaneous transmission analysis is used standalone MPE at total power level to show compliance.
2. Σ (Power Density / Limit): This is a summation of [(power density for each transmitter/antenna included in the simultaneous transmission)/ (corresponding MPE limit)], for WWAN + Bluetooth.
3. Considering the WWAN module collocation with the Bluetooth transmitter of the EIRP performance listed in the table above, the aggregated (power density /limit) is smaller than 1, and MPE of 2 collocated transmitters is compliant

Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.