



Radio Frequency Exposure

Applicant : Ubiquiti Inc.

Address : 685 Third Avenue, New York, New York 10017,
USA

Equipment : Retrofit Reader Fingerprint

Model No. : UA-Retrofit-Reader-Fingerprint-W
UA-Retrofit-Reader-Fingerprint-B

Trade Name : UBIQUITI

FCC ID : SWX-UARRF

I HEREBY CERTIFY THAT :

The sample was received on Jan. 23, 2026 and the testing was completed on Feb. 10, 2026 at CerpPASS Technology Corp. The test result refers exclusively to the test presented test model / sample. Without written approval of CerpPASS Technology Corp., the test report shall not be reproduced except in full.

Approved by:

Mark Liao / Supervisor

Laboratory Accreditation:

CerpPASS Technology Corporation Test Laboratory





CONTENTS

1.	Summary of Test Procedure and Test Results	4
1.1.	Applicable Standards	4
2.	Test Configuration of Equipment under Test	5
2.1.	Feature of Equipment under Test.....	5
2.2.	General Information of Test.....	6
2.3.	Measurement Uncertainty	7
3.	Test Equipment and Ancillaries Used for Tests	8
4.	Radio Frequency Exposure	9
4.1.	Applicable Standards	9
4.2.	EUT Specification.....	10
4.3.	Result	11



History of this test report

Report No.	Issued Date	Description
26010358-TRFCC03	Mar. 06, 2026	Original



1. Summary of Test Procedure and Test Results

1.1. Applicable Standards

FCC Rules and Regulations Part 2.1091

FCC Rule	Description of Test	Result
2.1091	Radio Frequency Exposure	PASS

*The lab has reduced the uncertainty risk factor from test equipment, environment and staff technicians which according to the standard on contract. Therefore, the test result will only be determined by standard requirement, measurement uncertainty evaluation is not considered.



2. Test Configuration of Equipment under Test

2.1. Feature of Equipment under Test

Frequency Range	BLE: 2400MHz-2483.5MHz NFC: 13.553MHz-13.567MHz
Center Frequency Range	BLE: 2402-2480MHz NFC: 13.56MHz
Modulation Type	BLE: GFSK NFC: ASK
Modulation Technology	BLE: DTS
Data Rate	BLE: GFSK: 1Mbps
Antenna Type	BLE: PIFA Antenna NFC: Loop Antenna
Antenna Gain	BLE: 3 dBi NFC: 0 dBi

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

Difference description:

Model No.	Remark
UA-Retrofit-Reader-Fingerprint-W	Color difference
UA-Retrofit-Reader-Fingerprint-B	

**2.2. General Information of Test**

Organization	Cerpass Technology Corp.		
☒ Test Site	Cerpass Technology Corporation Test Laboratory Address: No.10, Ln. 2, Lianfu St., Luzhu Dist., Taoyuan City 33848, Taiwan (R.O.C.) Tel: +886-3-3226-888 Fax: +886-3-3226-881		
	FCC	TW1439, TW1079	
	IC	4934E-1, 4934E-2	
Frequency Range Investigated	Conducted: from 150kHz to 30 MHz Radiation: from 30 MHz to 40,000MHz		
Test Distance	The test distance of radiated emission from antenna to EUT is 3 M.		

For NFC

Test Item	Test Site	Test period	Environmental Conditions	Tested By
Radiated Emissions	3M02-NK	2026/02/07	19.2°C / 53%	Leon Huang
Radiated Emissions	3M02-NK	2026/02/08	18.4°C / 63%	Leon Huang

For BLE

Test Item	Test Site	Test period	Environmental Conditions	Tested By
RF Conducted	RFCON02-NK	2026/02/10	23.4°C / 46%	Leon Huang



2.3. Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

For NFC

Measurement Item	Uncertainty
Radiated Spurious Emission(9KHz~30MHz)	±3.4dB
Radiated Spurious Emission(30MHz~1GHz)	±5.2dB
20dB Bandwidth	±4.5%
Occupied Bandwidth	±4.4%
Frequency Stability	±0.22KHz

For BLE

Measurement Item	Uncertainty
AC Power Line Conduction(150K~30MHz)	±3.2dB
Radiated Spurious Emission(9KHz~30MHz)	±3.4dB
Radiated Spurious Emission(30MHz~1GHz)	±5.2dB
Radiated Spurious Emission(1GHz~40GHz)	±5.2dB
Conducted Spurious Emission	±2.1dB
6dB Bandwidth	±4.4%
20dB Bandwidth	±4.5%
Occupied Bandwidth	±4.4%
Peak Output Power(Conducted Power Meter)	±1.1dB
Dwell Time / Deactivation Time	±3.5%
Power Spectral Density	±2.0dB
Duty Cycle	±3.5%



3. Test Equipment and Ancillaries Used for Tests

For NFC

Test Item	Radiated Emissions				
Test Site	Semi Anechoic Room(3M02-NK)				
Instrument	Manufacturer	Model No	Serial No	Calibration Date	Valid Date
Bilog Antenna	Schwarzbeck	VULB9168	369	2025/02/17	2026/02/16
Active Loop Antenna	EMCO	6507	00040855	2025/04/28	2026/04/27
Horn Antenna	EMCO	3115	31589	2025/02/20	2026/02/19
Horn Antenna	EMCO	3116	31974	2025/02/20	2026/02/19
EMI Receiver	ROHDE & SCHWARZ	ESR 7	101906	2025/05/19	2026/05/18
Spectrum Analyzer 44GHz	ROHDE & SCHWARZ	FSV3044	101744	2025/04/23	2026/04/22
Preamplifier	EMC INSTRUMENTS	EMC0518A45SE	981069	2025/12/18	2026/12/17
Preamplifier	EMC INSTRUMENTS	EMC184045	980065	2025/10/13	2026/10/12
Preamplifier	EM Electronics corp.	EM330	60659	2025/12/18	2026/12/17
Cable-4m(9k-3G)	EMEC	RG-223	18274M	2025/07/02	2026/07/01
Cable-4m(30M-1G)	HUBER SUHNER	RG-214	02953M	2025/07/03	2026/07/02
Cable-1m(30M-1G)	HUBER SUHNER	RG-214	05094M	2025/07/04	2026/07/03
Cable-9m(30M-1G)	HUBER SUHNER	RG-214	00402M	2025/07/05	2026/07/04
Cable-0.5m(1G-40G)	HUBER SUHNER	SUCOFLEX 104	805443/4	2025/02/26	2026/02/25
Cable-3m(1G-40G)	HUBER SUHNER	SUCOFLEX 104	805796/4	2025/02/26	2026/02/25
Cable-8m(1G-26.5G)	WOKEN	WCBA-WCA203SM	CCE1374	2025/02/26	2026/02/25
Cable-1m(1G-40G)	HUBER SUHNER	SF102E	552450	2025/07/09	2026/07/08
Cable-3m(1G-40G)	HUBER SUHNER	SF102E	552451	2025/07/09	2026/07/08
E3	AUDIX	v8.2014-8-6	RK-000529	NA	NA

For BLE

Test Item	RF Conducted				
Test Site	RFCON02-NK				
Instrument	Manufacturer	Model No	Serial No	Calibration Date	Valid Date
Spectrum Analyzer	ROHDE & SCHWARZ	FSP 40	100047	2025/03/03	2026/03/02
Attenuator	KEYSIGHT	8491B	MY39250705	2025/09/04	2026/09/03
Cable-0.5m(1G-26.5G)	HUBER SUHNER	SUCOFLEX 102	28422/2	2025/06/06	2027/06/05
Power Meter	Anritsu	ML2495A	2034001	2025/08/27	2026/08/26
Power Sensor	Anritsu	MA2411B	1911175	2025/08/27	2026/08/26
Switch Box	Theda	1-4	TW5451159	NA	NA



4. Radio Frequency Exposure

4.1. Applicable Standards

☒ §1.1307(b)(3)(i)(A)	The available maximum time-averaged power is no more than 1 mW, regardless of separation distance.																																																	
☐ §1.1307(b)(3)(i)(c)	ERP is below a threshold calculated based on the distance , R between the person and t antenna / radiating structure, where $R > \lambda / 2 \pi$. TABLE B.1—THRESHOLDS FOR SINGLE RF SOURCES SUBJECT TO ROUTINE ENVIRONMENTAL EVALUATION <table><tr><th colspan="3">RF Source Frequency</th><th colspan="3">Minimum Distance</th><th>Threshold ERP</th></tr><tr><th>f_L MHz</th><th></th><th>f_H MHz</th><th>$\lambda_L / 2\pi$</th><th></th><th>$\lambda_H / 2\pi$</th><th>W</th></tr><tr><td>0.3</td><td>–</td><td>1.34</td><td>159 m</td><td>–</td><td>35.6 m</td><td>1,920 R²</td></tr><tr><td>1.34</td><td>–</td><td>30</td><td>35.6 m</td><td>–</td><td>1.6 m</td><td>3,450 R²/f²</td></tr><tr><td>30</td><td>–</td><td>300</td><td>1.6 m</td><td>–</td><td>159 mm</td><td>3.83 R²</td></tr><tr><td>300</td><td>–</td><td>1,500</td><td>159 mm</td><td>–</td><td>31.8 mm</td><td>0.0128 R²f</td></tr><tr><td>1,500</td><td>–</td><td>100,000</td><td>31.8 mm</td><td>–</td><td>0.5 mm</td><td>19.2R²</td></tr></table> Subscripts L and H are low and high; λ is wavelength. From § 1.1307(b)(3)(i)(C), modified by adding Minimum Distance columns.	RF Source Frequency			Minimum Distance			Threshold ERP	f_L MHz		f_H MHz	$\lambda_L / 2\pi$		$\lambda_H / 2\pi$	W	0.3	–	1.34	159 m	–	35.6 m	1,920 R ²	1.34	–	30	35.6 m	–	1.6 m	3,450 R ² /f ²	30	–	300	1.6 m	–	159 mm	3.83 R ²	300	–	1,500	159 mm	–	31.8 mm	0.0128 R ² f	1,500	–	100,000	31.8 mm	–	0.5 mm	19.2R ²
RF Source Frequency			Minimum Distance			Threshold ERP																																												
f_L MHz		f_H MHz	$\lambda_L / 2\pi$		$\lambda_H / 2\pi$	W																																												
0.3	–	1.34	159 m	–	35.6 m	1,920 R ²																																												
1.34	–	30	35.6 m	–	1.6 m	3,450 R ² /f ²																																												
30	–	300	1.6 m	–	159 mm	3.83 R ²																																												
300	–	1,500	159 mm	–	31.8 mm	0.0128 R ² f																																												
1,500	–	100,000	31.8 mm	–	0.5 mm	19.2R ²																																												
☒ § 1.1307(b)(3)(i)(B).	Device operates between 300 MHz and 6 GHz and the maximum time-averaged power or effective radiated power (ERP), whichever is greater, $\leq P_{th}$ $P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$ Where $x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right) \text{ and } f \text{ is in GHz;}$ and $ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases}$ d = the separation distance (cm);																																																	



4.2. EUT Specification

Frequency band (Operating)	☐ WLAN: 2412MHz ~ 2462MHz ☐ WLAN: 5150MHz ~ 5250MHz ☐ WLAN: 5250MHz ~ 5350MHz ☐ WLAN: 5470MHz ~ 5725MHz ☐ WLAN: 5725MHz ~ 5850MHz ☒ Bluetooth: 2402MHz ~ 2480MHz ☒ NFC:13.553MHz ~ 13.567MHz
Device category	☐ Portable (<20cm separation) ☒ Mobile (>20cm separation)
Antenna diversity	☒ Single antenna ☐ Multiple antennas ☐ Tx diversity ☐ Rx diversity ☐ Tx/Rx diversity
Evaluation applied	☒ Blanket 1 mW Blanket Exemption ☒ MPE-based Exemption ☐ SAR-based Exemption
Remark: For BLE: The maximum conducted output power is <u>8.81dBm (7.603mW) at 2440MHz (with 3.00dBi antenna gain.)</u> For NFC: The maximum conducted output power is <u>62.684dBuV/m at 13.56MHz (with 0dBi antenna gain.)</u>	



4.3. Result

For NFC

Channel Frequency (MHz)	Fundamental Emission (dBm)	Antenna Gain (dBi)	Conducted Power (dBm)	Max. Tune up power (dBm)	Fundamental Emission (mW)	Limit (mW)
13.56	-32.54	0.00	-32.54	-32.04	0.000624484	1

Antenna Gain (dBi)	Antenna Gain (linear)	Distance (m)	Fundamental Emission (dBuV/m)	Fundamental Emission (V/m)	Fundamental Emission (W)	Fundamental Emission (dBm)
0	1	3	62.684	0.00136	0.000000557	-32.545

No non-compliance noted.

For BLE

Channel Frequency (MHz)	Max. Conducted output power (dBm)	Max. Tune up power (dBm)	Antenna Gain(dBi)	Max.Tune up e.r.p. Power (dBm)	Max. Tune up e.r.p power (mW)	Limit (mW)
2402-2480	8.81	9.31	3.00	10.16	10.38	3060

-----THE END OF REPORT-----