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TEST REPORT

FCC MPE Test for QC-336A
Certification

APPLICANT
Qucell Networks Co., Ltd.

REPORT NO.
HCT-RF-2402-FC016

DATE OF ISSUE
February 13, 2024

Tested by
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Applicant	**Qucell Networks Co., Ltd.** 3F, Innowireless Building, 190, Seohyeon-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea
Eut Type Model Name	QUCELL 5G-S6 QC-336A
FCC ID	2AS48QC-336A
Location of Test	■ Permanent Testing Lab ☐ On Site Testing (Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea)

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	February 13, 2024	Initial Release

Notice

Content
The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements of the FCC Rules under normal use and maintenance.
The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated. The test results have only been applied with the test methods required by the standard(s).
When confirmation of authenticity of this test report is required, please contact www.hct.co.kr
The above Test Report is not related to the accredited test result by (KS Q) ISO/IEC 17025 and KOLAS(Korea Laboratory Accreditation Scheme) / A2LA(American Association for Laboratory Accreditation)(4114.01), which signed the ILAC-MRA.

RF Exposure Statement

1. Limit

According to § 1.1310, § 2.1091 RF exposure is calculated.

(B) Limits for General Population/Uncontrolled Exposures

Frequency range (MHz)	Electric field Strength (V/m)	Magnetic field Strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
0.3 - 1.34.....	614	1.63	[a](100)	30
1.34 - 30.....	824/f	2.19/f	[a]($180/f^2$)	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

[a] = Plane-wave equivalent power density

2. Maximum Permissible Exposure Prediction

Prediction of MPE limit at a given distance

$$S = PG/4\pi R^2$$

S = Power density

P = Power input to antenna

G = Power gain to the antenna in the direction of interest relative to an isotropic radiator

R = Distance to the center of radiation of the antenna

3. RESULTS

3.1 MPE calculation for standalone operations: Ceiling

- (2 Port) 5G NR n48 10 MHz [1 Carrier]

Maximum output Power at antenna input terminal	24.01	dBm
Maximum output Power at antenna input terminal	251.77	mW
Prediction distance	20.00	cm
Prediction frequency	3 550.00	MHz
Antenna Gain(typical)	4.98	dBi
Antenna Gain(numeric)	3.15	-
Power density at prediction frequency(S)	0.1577	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm^2

- (2 Port) 5G NR n48 20 MHz [1 Carrier]

Maximum output Power at antenna input terminal	25.01	dBm
Maximum output Power at antenna input terminal	316.96	mW
Prediction distance	20.00	cm
Prediction frequency	3 550.00	MHz
Antenna Gain(typical)	4.98	dBi
Antenna Gain(numeric)	3.15	-
Power density at prediction frequency(S)	0.1985	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm^2

- (2 Port) 5G NR n48 30 MHz [1 Carrier]

Maximum output Power at antenna input terminal	25.01	dBm
Maximum output Power at antenna input terminal	316.96	mW
Prediction distance	20.00	cm
Prediction frequency	3 550.00	MHz
Antenna Gain(typical)	4.98	dBi
Antenna Gain(numeric)	3.15	-
Power density at prediction frequency(S)	0.1985	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm^2

- (2 Port) 5G NR n48 40 MHz [1 Carrier]

Maximum output Power at antenna input terminal	25.01	dBm
Maximum output Power at antenna input terminal	316.96	mW
Prediction distance	20.00	cm
Prediction frequency	3 550.00	MHz
Antenna Gain(typical)	4.98	dBi
Antenna Gain(numeric)	3.15	-
Power density at prediction frequency(S)	0.1985	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm^2