

FCC RF Exposure Report

Report No.: MFBCUN-WTW-P23030714

FCC ID: H8N46116A

Model No.: NR xCell 46116A

Received Date: 2023/4/10

Issued Date: 2023/9/6

Applicant: ASKEY COMPUTER CORP.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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**FCC Registration /
Designation Number:** 788550 / TW0003



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Release Control Record

Issue No.	Description	Date Issued
MFBCUN-WTW-P23030714	Original release	2023/9/6

1 Certificate of Conformity

Product: 5G small cell

Brand: ASKEY

Test Model: NR xCell 46116A

Sample Status: Engineering sample

Applicant: ASKEY COMPUTER CORP.

FCC Rule Part: FCC Part 2 (Section 2.1091)

Standards: KDB 447498 D01 General RF Exposure Guidance v06

We, **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, declare that the equipment above has been found compliance with the requirement limits of applicable standards. The test record, data evaluation and Equipment Under Test (EUT) configurations represented herein are true and accurate under the standards herein specified.

Prepared by :

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Date:

2023/9/6

Pettie Chen / Senior Specialist

Approved by :

Jeremy Lin

Date:

2023/9/6

Jeremy Lin / Project Engineer

2 General Information

2.1 General Description of EUT

Product	5G small cell	
Brand	ASKEY	
Test Model	NR xCell 46116A	
Status of EUT	Engineering sample	
Power Supply Rating	12Vdc or 48Vdc (Adapter)	
Modulation Type	5G NR	QPSK, 64QAM, 256QAM
Operating Frequency	5G NR n48	3555MHz ~ 3694.98MHz
	5G NR n77	3700MHz ~ 3980MHz
Antenna Type	Refer to note	

Note:

1. The EUT contains following accessory devices and PoE.

AC Adapter 1	Brand	FLYPOWER
	Model	PS65B120Y5000S
	AC Input	100-240Vac~, 15A, 50/60Hz
	DC Output	12.0Vdc, 5.0A
AC Adapter 2	Brand	Sunny
	Model	SYS1649-6548-T2
	AC Input	100-240Vac~, 15A, 50/60Hz
	DC Output	48.0Vdc, 1.35A
Bracket	Brand	LUNG TENG
	Model	MOD-SCE2200-Wall_Ceiling_Ploe-Mount-Sub
Power cord	Brand	WELL SHIN
	Model	1961-0048
PoE (Support unit)	Brand	CERiO
	Model	FPOE-DXG

2. The EUT device does not support 16QAM modulation and only supports Full RB mode.

3. The antenna information is listed as below.

Antenna Type	Antenna Gain(dBi)			Connector Type
	Frequency (MHz)	Ant 1	Ant 2	
Dipole	3300	5.54	4.80	I-PEX
	3550	4.79	5.05	
	3700	4.71	5.79	
	3800	5.14	6.20	

* Detail antenna specification please refer to antenna datasheet an antenna gain measurement report.

3 RF Exposure

3.1 Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (minutes)
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

f = Frequency in MHz; *Plane-wave equivalent power density

3.2 MPE Calculation Formula

$$P_d = (P_{out} * G) / (4 * \pi * r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

r = distance between observation point and center of the radiator in cm

3.3 Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

4 Calculation Result of Maximum Conducted Power

Mode	EIRP (dBm)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
5G NR n48	32.85	20	0.383	1.000
5G NR n77 (Part 270)	35.15	20	0.651	1.000

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

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