

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 :

Pettie Chen

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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