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RF MPE REPORT

Application No.:	KSCR2402000282AT
FCC ID:	WBKRU424048
Applicant:	BTl Wireless
Address of Applicant:	11205 Knott Avenue -Suite A, Cypress, CA 90630, United States
Manufacturer:	BTl Wireless
Address of Manufacturer:	11205 Knott Avenue -Suite A, Cypress, CA 90630, United States
Equipment Under Test (EUT):	
EUT Name:	5G Pico Remote Radio Unit
Model No.:	RU4240
Trade mark:	
Standard(s) :	FCC Rules 47 CFR §2.1091 KDB447498 D01 General RF Exposure Guidance v06
Date of Receipt:	2024-02-26
Date of Test:	2024-03-20 to 2024-05-09
Date of Issue:	2024-05-10
Test Result:	**Pass***

* In the configuration tested, the EUT complied with the standards specified above.

Revision Record			
Version	**Description**	**Date**	**Remark**
00	Original	2024-05-10	/

Authorized for issue by:				
Tested By		 **Cloud Peng /Project Engineer**		
Approved By		 **Terry Hou /Reviewer**		

2 Contents

3 General Information

3.1 General Description of E.U.T.

Power supply:	DC 48V

3.2 Technical Specifications

Frequency Band:	5GNR N48,N77,N78
Frequency Range:	3550MHz-3700MHz
Antenna Type:	External
Antenna Gain:	2dBi (Provided by manufacturer)
CBSD Class:	Category A CBSD (Base Station)
Support Bandwidth:	60/80/100Mhz
Modulation Type:	5G NR: CP-OFDM: QPSK, 256QAM
Antenna Delivery:	4T4R MIMO, SISO
Temperature Range:	-40℃ to 55℃

Note:
The antenna gain value is provided by the customer. The test lab will not be responsible for wrong test result due to incorrect information about antenna gain values.

3.3 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

1.SGS is not responsible for wrong test results due to incorrect information (e.g., max. internal working frequency, antenna gain, cable loss, etc) is provided by the applicant. (If applicable).

2.SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (If applicable).

3. Sample source: sent by customer.

3.4 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• A2LA

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

• FCC

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

• ISED

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 2324E

• VCCI

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.

4 Test Standards and Limits

4.1 FCC Radiofrequency radiation exposure limits:

According to§1.1310, the limit 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)
Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f2)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

Note: 5G N48,N77,N78 is $1mW/cm^2$.

5 Measurement and Calculation

5.1 Maximum transmit power

The Power Data is based on the RF Test Report KSCR240200028201.

5.2 MPE Calculation

According to the formula $S=P/4\pi R^2$, we can calculate S which is MPE.
Note:
1) P (mW)
2) R = distance to the center of radiation of antenna (in centimeter)
3) MPE limit = 1mW/cm²

Test Mode	Frequency Band (MHz)	Maximum E.I.R.P (dBm)	Power Density (mW/cm2)	Limit of Power Density S(mW/cm2)	Safety Distance (cm)
5G NR Band n48	3550 ~ 3700	33	0.3969	1	20
5G NR Band n77	3550 ~ 3700	33	0.3969	1	20
5G NR Band n78	3550 ~ 3700	33	0.3969	1	20

According to the KDB447498 section 7.2 determine the device is exclusion from SAR test.

--End of the Report--