

TEST REPORT

Applicant: Punkt Tronics AG
Address: Via Losanna 4, Lugano, Switzerland
Equipment Type: Smartphone
Model Name: MC 02
Brand Name: Punkt.
FCC ID: Z3PMC02
Test Standard: 47 CFR Part 96.47
Sample Arrival Date: Dec. 21, 2023
Test Date: Dec. 21, 2023 - Jan. 17, 2024
Date of Issue: Jan. 25, 2024

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Jiamin Lu

Checked by: Wu Huihui

Approved by: Tolan Tu
(Testing Director)

Jiamin Lu

Wu Huihui

Tolan Tu

Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Jan. 23, 2024</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Jan. 25, 2024</u>	<u>Update the applicant's name, brand, and FCC ID.</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☒ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☐ 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Punkt Tronics AG
Address	Via Losanna 4, Lugano, Switzerland

2.2 Manufacturer Information

Manufacturer	UWIN INNOVATIOIN (HONG KONG) LIMITED
Address	ROOM D 10/F TOWER A BILLION CENTRE 1 WANG KWONG RD KOWLOON BAY KL

2.3 General Description for Equipment under Test (EUT)

EUT Name	Smartphone
Model Name Under Test	MC 02
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	N/A
Software Version	MC02.20231230.U0
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Technical Information

The following is the technical information of the EUT tested frequency bands in this report.

Operating Bands		5G Network SA: NR n48	
Modulation Type		CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM DFT-s-OFDM: QPSK / 16QAM / 64QAM / 256QAM	
SCS		30kHz	
Device Type		End User Device	
Band	Power Class	Tx Frequency Range	Rx Frequency Range
NR n48	3	3550 MHz ~ 3700 MHz	3550 MHz ~ 3700 MHz

Note1: The EUT information provided by the applicant. For more detailed band specifications and features description, please refer to the manufacturer's specifications or user's manual.

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 96	CITIZENS BROADBAND RADIO SERVICE

3.2 Test Verdict

No.	Test Description	FCC Part No.	Test Result	Test Verdict
1	End user device additional requirements.	96.47	ANNEX A.1	Pass

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

During the measurement, the environmental conditions were within the listed ranges:

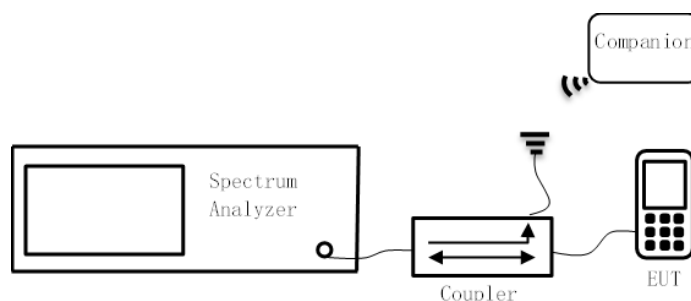
Relative Humidity		20% to 75%
Atmospheric Pressure		98 kPa to 102 kPa
Test Temperature of the EUT	NT (Normal Temperature)	15 °C to 35 °C

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Version	Cal. Date	Cal. Due
CBRS Test System						
Spectrum Analyzer	keysight	N9020A	MY50531628	A.16.09	2023.05.12	2024.05.11
5G NR Base Station	Baicells	BSC7048A243	AP21RBAAN0300107	N/A	N/A	N/A

4.3 Test Setup

4.3.1 For Conducted Test



(Diagram 1)

5 TEST ITEMS

5.1 End user device additional requirements

5.1.1 Limit

FCC § 96.47

(a)End User Devices may operate only if they can positively receive and decode an authorization signal transmitted by a CBSD, including the frequencies and power limits for their operation.

(1)An End User Device must discontinue operations, change frequencies, or change its operational power level within 10 seconds of receiving instructions from its associated CBSD.

5.1.2 Test Setup

The section 4.3.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.1.3 Test Procedure

Following procedure can be done by applying WINNF-TS-0122-V1.0.2 CBRS CBSD Test Specification, use the certified CBSD (FCC ID: 2AG32BSC7048A243) as companion device to show compliance with Part 96.47requirement for End User Device(EUD):

1. Setup with frequency 3605-3625MHz and power level 17dBm/MHz
2. Enable AP service from BaiCore management
3. Check EUD Tx Frequency and power
4. Disable AP service from BaiCore management
 - a. Check EUD stops transmission within 10seconds.
5. Setup with frequency 3670-3690MHz and power level 7dBm/MHz
6. Enable AP service from BaiCore management
7. Check EUD Tx Frequency and power
8. Disable AP service from BaiCore management
 - a. Check EUD stops transmission within 10seconds.

5.1.4 Test Result

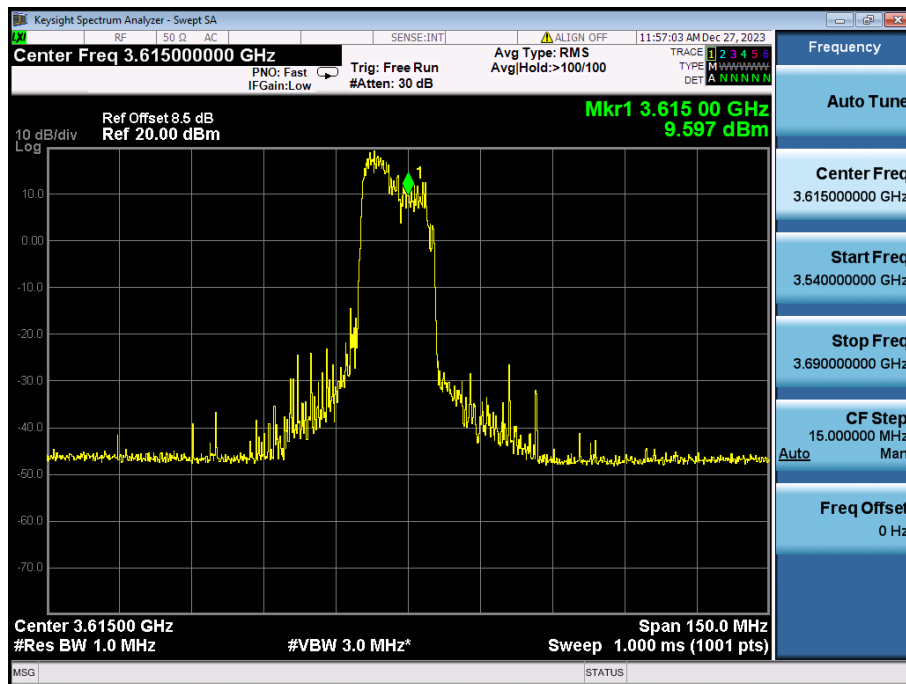
Please refer to ANNEX A.1.

ANNEX A TEST RESULTS

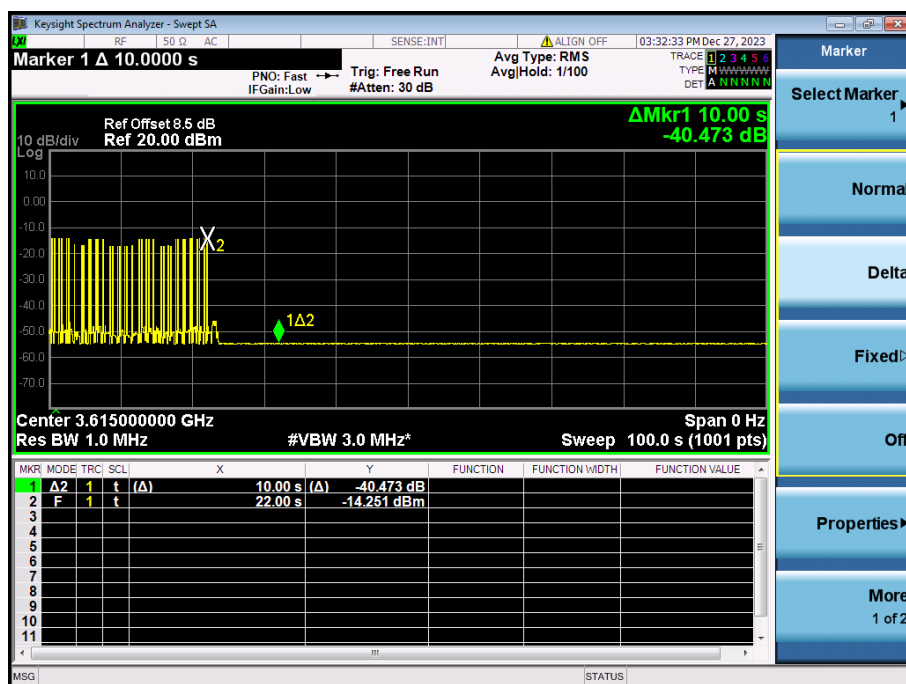
A.1 End user device additional requirements

Test Band: CBSD transmit at frequency 3605-3625MHz and power level 17dBm/MHz

Frequency Operation

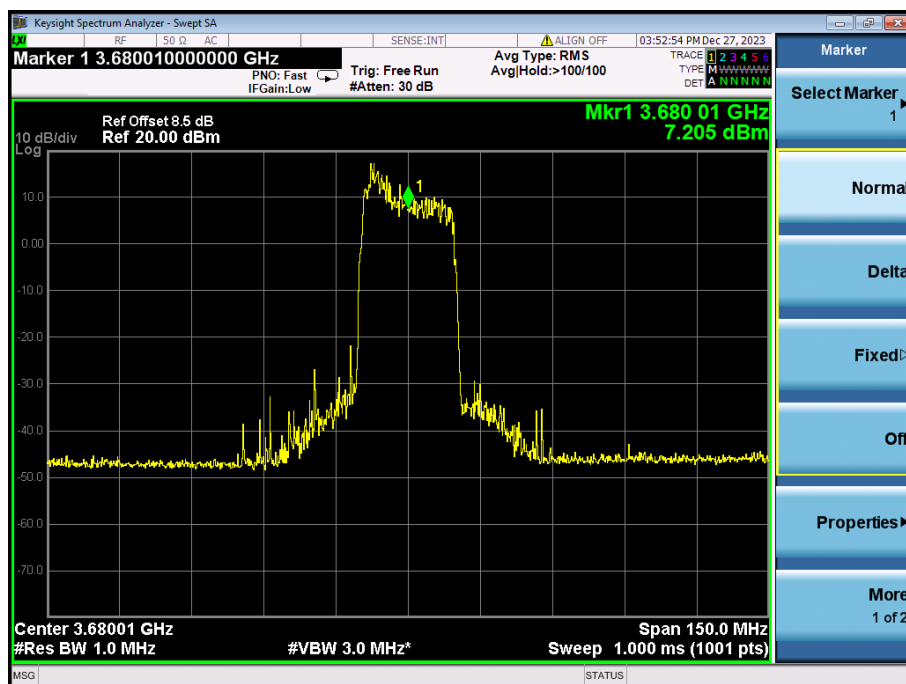


Discontinues Operations within 10s

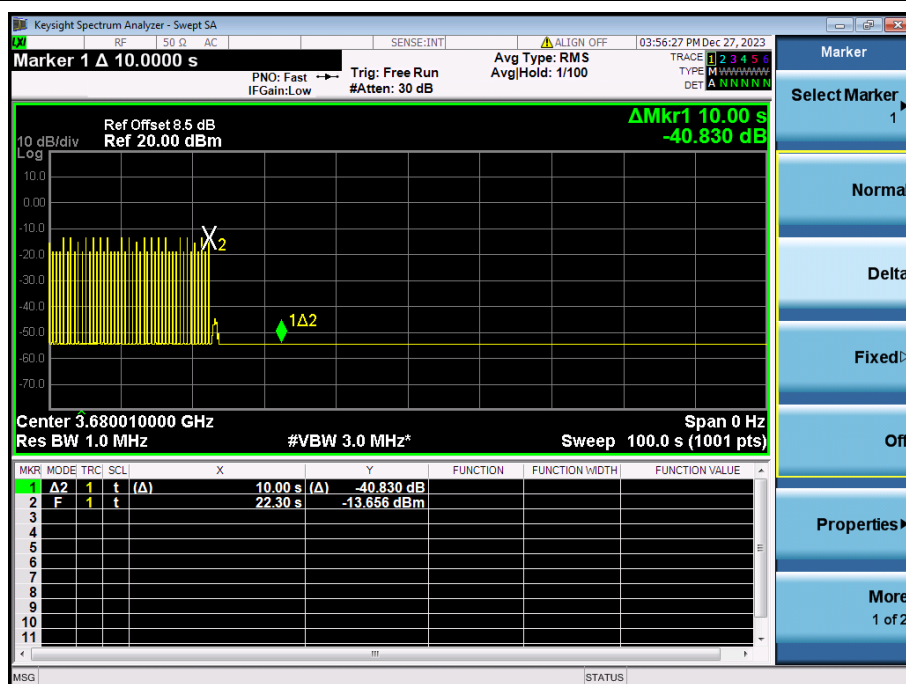


Test Band: CBSD transmit at frequency 3670-3690MHz and power level 7dBm/MHz

Frequency Operation



Discontinues Operations within 10s



ANNEX B TEST SETUP PHOTOS

Please refer to the document “BL-SZ23C1113-AR.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer to the document “BL-SZ23C1113-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ23C1113-AI.PDF”.

Statement

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--END OF REPORT--