

TEST REPORT

FCC MPE Test for SDRX-43-BTF
Certification

APPLICANT
ADRF KOREA, Inc.

REPORT NO.
HCT-RF-2202-FC004

DATE OF ISSUE
February 7, 2022

Tested by
Kyung Soo Kang



Technical Manager
Jong Seok Lee



HCT CO., LTD.
Bongjai Huh
BongJai Huh / CEO



HCT Co., Ltd.

74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 KOREA
Tel. +82 31 634 6300 Fax. +82 31 645 6401

**TEST
REPORT**

FCC MPE Test for
SDRX-43-BTF

REPORT NO.
HCT-RF-2202-FC004

DATE OF ISSUE
February 07, 2022

Additional Model
-

Applicant **ADRF KOREA, Inc.**
5-5, Mojeon-Ri, Backsa-Myun, Icheon-Citi, Kyunggi-Do, Korea

Eut Type Repeater
Model Name SDRX-43-BTF

FCC ID N52-SDRX-43-BTF

The result shown in this test report refer only to the sample(s) tested unless otherwise stated.
This test results were applied only to the test methods required by the standard.

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	February 07, 2022	Initial Release

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.

If this report is required to confirmation of authenticity, please contact to www.hct.co.kr

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	*(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

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 of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

3. RESULTS

- BRS/EBS – 5G NR 100 MHz (Uplink)

Max Peak output Power at antenna input terminal	30.50	dBm
Max Peak output Power at antenna input terminal	1122.02	mW
Prediction distance	140.00	cm
Prediction frequency	2496.00	MHz
Antenna Gain(typical)	20.40	dBi
Antenna Gain(numeric)	109.65	-
Power density at prediction frequency(S)	0.4995	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

- BRS/EBS – 5G NR 100 MHz (Downlink)

Max Peak output Power at antenna input terminal	43.50	dBm
Max Peak output Power at antenna input terminal	22387.21	mW
Prediction distance	110.00	cm
Prediction frequency	2496.00	MHz
Antenna Gain(typical)	5.30	dBi
Antenna Gain(numeric)	3.39	-
Power density at prediction frequency(S)	0.4989	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²