TEST REPORT

FCC MPE Test for SDR-33-AC
Certification

APPLICANT
ADRF KOREA, Inc.

REPORT NO.
HCT-RF-2508-FC008

DATE OF ISSUE
August 13, 2025

Tested by
Jae hyeon Chu

Technical Manager
Jong Seok Lee

HCT CO., LTD.
BongJai Huh / CEO

HCT CO., LTD. 2-6, 73, 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea Tel. +82 31 645 6300 Fax. +82 31 645 6401

HCT CO.,LTD.
2-6, 73, 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea
Tel. +82 31 645 6300 Fax. +82 31 645 6401

TEST REPORT

REPORT NO.
HCT-RF-2508-FC008

DATE OF ISSUE
August 13, 2025

Applicant	**ADRF KOREA, Inc.** 196-16 IYEO-RO BAEKSA-MYEON ICHEON-SI, GYEONGGI-DO, 17316, KOREA
Product Name Model Name	REPEATER SDR-33-AC
FCC ID	N52-SDR-33-AC
Output Power	33 dBm
Date of Test	July 16, 2025 ~ August 6, 2025
Location of Test	■ Permanent Testing Lab ☐ On Site Testing (Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea)
Test Standard Used	CFR 47 Part 2.1091
Test Results	PASS

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	August 13, 2025	Initial Release

Notice

Content

Engineering Statement:
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.

The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated.
The test results have only been applied with the test methods required by the standard(s).

The laboratory is not accredited for the test results marked *.
Information provided by the applicant is marked **.
Test results provided by external providers are marked ***.

When confirmation of authenticity of this test report is required, please contact www.hct.co.kr

The test results in this test report are not associated with the ((KS Q) ISO/IEC 17025) accreditation by KOLAS (Korea Laboratory Accreditation Scheme) / A2LA (American Association for Laboratory Accreditation) that are under the ILAC (International Laboratory Accreditation Cooperation) Mutual Recognition Agreement (MRA).

RF Exposure Statement

1. LIMITS

According to § 1.1310 and § 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

[Uplink]

- AWS

Max output Power at antenna input terminal	33.50	dBm
Max output Power at antenna input terminal	2 238.72	mW
Prediction distance	35.00	cm
Prediction frequency	1 710.00	MHz
# Antenna Gain(typical)	-4.90	dBi
# Antenna Gain(numeric)	0.32	-
Power density at prediction frequency (S)	0.0471	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm^2

Antenna gain includes the cable loss value declared by the manufacturer.
Cable Loss: 24 dB
Total Gain: 19.1 dBi – 24 dB = -4.9 dBi

[Downlink]

- AWS

Max output Power at antenna input terminal	33.50	dBm
Max output Power at antenna input terminal	2238.72	mW
Prediction distance	35.00	cm
Prediction frequency	2 110.00	MHz
Antenna Gain(typical)	4.00	dBi
Antenna Gain(numeric)	2.51	-
Power density at prediction frequency (S)	0.3653	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm^2