

RF Exposure Estimation

1. Introduction

Applicant:	Rollease Acmeda Inc
Address:	7th Floor / 750 East Main Street, Stamford, CT 06902, USA
Product:	DCFT 15 ARC Motor
FCC ID:	2AGGZ003B9ACA52
Model No.:	MT01-1245-069001
Reference RF report #	709502306448-00A

2. B.2 Blanket 1 mW Blanket Exemption

According to KDB 447498 D04, the 1 mW Blanket Exemption of § 1.1307(b)(3)(i)(A) applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance. The 1 mW blanket exemption applies at separation distances less than 0.5 cm, including where there is no separation. This exemption shall not be used in conjunction with other exemption criteria other than those for multiple RF sources in paragraph § 1.1307(b)(3)(ii)(A). The 1 mW exemption is independent of service type and covers the full range of 100 kHz to 100 GHz, but it shall not be used in conjunction with other exemption criteria or in devices with higher-power transmitters operating in the same time-averaging period. Exposure from such higher-power transmitters would invalidate the underlying assumption that exposure from the lower-power transmitter is the only contributor to SAR in the relevant volume of tissue.

3. RF Exposure Evaluation

Per the test report included herein, for 433.92MHz

According to C63.10 Annex G

$$EIRP = pt \times gt = (E \times d)^2 / 30, \text{ so } pt = (E \times d)^2 / 30 \times gt$$

where

pt is the transmitter output power in watts

gt is the numeric gain of the transmitting antenna (dimensionless)

E is the electric field strength in V/m

d is the measurement distance in meters (m)

transmitter output power for 433.92MHz Function

Field strength (E):	80.723 (dBuV/m) = 0.0109 (V/m)
Measurement distance (D):	3 (m)
Antenna Gain, typical (dBi):	1.4
Numerical gain of the transmit antenna (gt):	1.38
Transmitter output power (TP):	0.000026(W)
Transmitter output power (TP):	0.026(mW)

We used the maximum ERP/EIRP to perform RF exposure exemption evaluation.

	Evaluation method	Exempt Limit (mW)	Verdict
■	Blanket 1 mW Blanket Exemption	1mW	Yes
□	MPE-based Exemption (ERP)	7mW (ERP)	N/A
□	SAR-based Exemption (Pth)	3060mW	N/A

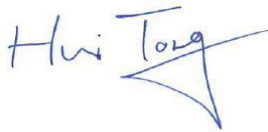
So, the device is qualified for SAR test exemption, the exemption report is in lieu of the SAR report.

- TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch

Reviewed by:

Prepared by:

Tested by:



Hui TONG

Wenqiang LU

Chengjie GUO

EMC Section Manager

Date: November 07, 2023

EMC Project Engineer

Date: November 07, 2023

EMC Test Engineer

Date: November 07, 2023

-----End of Test Report-----