

MRT Technology (Suzhou) Co., Ltd Phone: +86-512-66308358 Web: www.mrt-cert.com Report No.: 2006RSU049-U2 Report Version: V01 Issue Date: 06-29-2020

RF Exposure Evaluation Declaration

FCC ID: 2AVK9-30284

Applicant: Strong Current Enterprises Limited

Application Type: Certification

Product: AUTOMEND PRO

Model No.: 30284

FCC Classification: Digital Transmission System (DTS)

Test Procedure(s): KDB 447498 D01 General RF Exposure Guidance v06

Reviewed By:

Sunny Sun)

(Robin Wu)

Approved By:

IIac-MRA



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.

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Revision History

Report No.	Version	Description	Issue Date	Note	
2006RSU049-U2	Rev. 01	Initial Report	06-29-2020	Valid	



1. PRODUCT INFORMATION

1.1. Feature of Equipment under Test

Product Name:	AUTOMEND PRO
Model No.:	30284
Use Environment:	Vehicle Use
Working Voltage:	DC 9 ~ 16V
Bluetooth Version:	V4.0 (BLE only)
Bluetooth Frequency:	2402 ~ 2480MHz
Type of modulation:	GFSK
Data Rate:	1Mbps
Antenna Type:	PCB Antenna
Max Antenna Gain:	2.0 dBi

1.2. Working Frequencies for this report

Channel	Frequency	Channel	Frequency	Channel	Frequency
00	2402 MHz	01	2404 MHz	02	2406 MHz
03	2408 MHz	04	2410 MHz	05	2412 MHz
06	2414 MHz	07	2416 MHz	08	2418 MHz
09	2420 MHz	10	2422 MHz	11	2424 MHz
12	2426 MHz	13	2428 MHz	14	2430 MHz
15	2432 MHz	16	2434 MHz	17	2436 MHz
18	2438 MHz	19	2440 MHz	20	2442 MHz
21	2444 MHz	22	2446 MHz	23	2448 MHz
24	2450 MHz	25	2452 MHz	26	2454 MHz
27	2456 MHz	28	2458 MHz	29	2460 MHz
30	2462 MHz	31	2464 MHz	32	2466 MHz
33	2468 MHz	34	2470 MHz	35	2472 MHz
36	2474 MHz	37	2476 MHz	38	2478 MHz
39	2480 MHz				



2. RF Exposure Evaluation

2.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range	Electric Field	Magnetic Field	Power Density	Averaging Time	
(MHz)	Strength (V/m)	Strength (A/m)	(mW/cm ²)	(Minutes)	
(A) Limits for Occupational/ Control Exposures					
0.3-3.0	614	1.63	*100	6	
3.0-30	1842/f	4.89/f	*900/f ²	6	
30-300	61.4	0.163	1.0	6	
300-1,500			f/300	6	
1,500-100,000			5	6	
(B) Limits for General Population/ Uncontrolled Exposures					
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	
300-1,500	-		f/1500	30	
1,500-100,000			1.0	30	

f= Frequency in MHz

Calculation Formula: $P_d = (P_{out}*G)/(4*Pi*r^2)$

Where

 P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

r = distance between observation point and center of the radiator in cm

P_d is the limit of MPE, 1mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

^{* =} Plane-wave equivalent power density

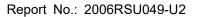


2.2. Test Result of RF Exposure Evaluation

Product	AUTOMEND PRO
Test Item	RF Exposure Evaluation

Test Mode	Frequency Band (MHz)	Maximum Total Average Output Power (dBm)	Power Density at R = 20 cm (mW/cm²)	Limit (mW/cm²)	Result
BLE	2402 ~ 2480	9.18	0.0026	1	Pass

———— The End





Appendix - EUT Photograph

Refer to "2006RSU049-UE" file.