

MPE TEST REPORT

Applicant Positioning Universal Inc

FCC ID 2AHRH-FJ950M

Product GPS Tracker

Model TM95M

Report No. R2106A0473-M1

Issue Date June 17, 2021

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC 47 CFR Part 1 1.1310**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Prepared by: Yu Wang

Yu Wang

Approved by: Guangchang Fan

Guangchang Fan

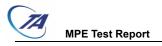
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Test Laboratory

Notes of the Test Report

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(shanghai) co., Ltd. The results documented in this report apply only to the tested sample, under the

conditions and modes of operation as described herein .Measurement Uncertainties were not taken

into account and are published for informational purposes only. This report is written to support

regulatory compliance of the applicable standards stated above.

1.2. Test facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform measurements.

Testing Location

Company:

TA Technology (Shanghai) Co., Ltd.

Address:

No.145, Jintang Rd, Tangzhen Industry Park, Pudong Shanghai, China

City:

Shanghai

Post code:

201201

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P. R. China

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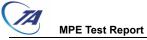
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Website:

http://www.ta-shanghai.com

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fanguangchang@ta-shanghai.com



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1.4 Laboratory Environment

Temperature	Min. = 18°C, Max. = 25 °C		
Relative humidity	Min. = 30%, Max. = 70%		
Ground system resistance	< 0.5 Ω		
Ambient noise is checked and found very low and in compliance with requirement of standards.			

Ambient noise is checked and found very low and in compliance with requirement of standards. Reflection of surrounding objects is minimized and in compliance with requirement of standards.



2 Description of Equipment under Test

Client Information

Applicant	Positioning Universal Inc
Applicant address	4660 La Jolla Village Drive Suite 1100 , San Diego / California /United States
Manufacturer	Positioning Universal Inc
Manufacturer address	4660 La Jolla Village Drive Suite 1100 , San Diego / California /United States

General Technologies

Model	TM95M		
Lab internal SN	R2106A0473/S01		
Hardware Version	TM95M_P1_V01		
Software Version	TM95_2_3_45_B0_FULL.bin		
Date of Testing:	June 3, 2021 ~June 9, 2021		
Date of Sample Received:	June 1, 2021		

Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.

2. All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.

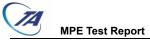


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3 Maximum conducted output power (measured) and antenna Gain

The numeric gain (G) of the antenna with a gain specified in dB is determined by Numeric gain (G)=10^(antenna gain/10)

Band	Maximum Conduct (dBi	•	Antenna Gain	Numeric gain
	(dBm)	(mW)	(dBi)	
LTE Band 2	25.000	316.228	1.300	1.349
LTE Band 4	25.000	316.228	-0.260	0.942
LTE Band 12	25.000	316.228	-0.310	0.931
LTE Band 13	25.000	316.228	-0.310	0.931
LTE Band 25	25.000	316.228	1.420	1.387



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4 Test Result

According to section 1.1310 of FCC 47 CFR Part 1, limits for maximum permissible exposure (MPE) are as following

TABLE 1 – LIMITS FOR MAXIMUN PERMISSIBLE EXPOSURE (MPE)

Frequency Range	y Range Electric Field Ma		Power Density	Averaging Time	
(MHz)	Strength	Strength			
A-1-0-17	(V/m) (A/m)		(mW/cm2)	(minutes)	
	(A) Limits for Occu	upational/Controlle	d Exposures		
0.3-3.0	614	1.63	*(100)	6	
3-30	1842/f	4.89/f	*(900/f2)	6	
30-300	61.4	0.163	1.0	6	
300-1500			f/300	6	
1500-100,000			5	6	
(B)	Limits for General	Population/Uncont	rolled Exposure		
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	
300-1500			f/1500	30	
1500-100,000			1.0	30	

f = frequency in MHz

Note1. Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational / controlled limits apply provided he or she is made aware of the potential for exposure.

Note2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

^{* =} Plane-wave equivalent power density



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The maximum permissible exposure for 300~1500 MHz is f/1500, for 1500~100,000MHz is 1.0.So

Band	The maximum permissible exposure (mW/cm²)
LTE Band 2	1.000
LTE Band 4	1.000
LTE Band 12	0.477
LTE Band 13	0.525
LTE Band 25	1.000



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RF Exposure Calculations:

The following information provides the minimum separation distance for the highest gain antenna provided. This calculation is based on the conducted power, considering maximum power and antenna gain. The formula shown in KDB 447498 D01 is used in the calculation.

Equation from KDB 447498 D01 General RF Exposure Guidance v06 (10/23/2015) is:

$$S = PG / 4\pi R^2$$

Where: S = power density (in appropriate units, e.g. mW/cm²)

P = Time-average maximum tune up procedure (in appropriate units, e.g., mW)

G = the numeric gain of the antenna

R = distance to the center of radiation of the antenna (20 cm = limit for MPE)

Band	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	PG (mW)	Test Result (mW/cm²)	Limit Value (mW/cm ²)
LTE Band 2	1.300	25.000	26.300	426.580	0.085	1.000
LTE Band 4	-0.260	25.000	24.740	297.852	0.059	1.000
LTE Band 12	-0.310	25.000	24.690	294.442	0.059	1.000
LTE Band 13	-0.310	25.000	24.690	294.442	0.059	0.570
LTE Band 25	1.420	25.000	26.420	438.531	0.087	1.000

Note: **R** = 20cm π = 3.1416

Note: For transmitters, minimum separation distance is 20cm, even if calculations indicate MPE distance is less.

******END OF REPORT ******



ANNEX A: The EUT Appearance

The EUT Appearance are submitted separately.