



RADIO EXPOSURE TEST REPORT

FCC ID : ZPNB122037TIRVBSD
Equipment : BSD 77GHz Trailer RV System
Brand Name : Cub
Model Name : B122-037 、 A009-010 、 A009-026 、 B122-037XXX-XX 、
B122-037XXX-XXX 、 A009-010XXX-XX 、 A009-010XXX-XXX 、
A009-026XXX-XX 、 A009-026XXX-XXX 、 A009-XXX-XX 、
A009-XXX-XXX (Please refer to section 1.3 of the test report
for detailed information.)
Applicant : CUB ELECPARTS INC
No.6,Lane 546, Sec. 6, Changlu Road, Fuhsin Township,
Changhua County, Taiwan 506
Manufacturer : CUB ELECPARTS INC
No.6,Lane 546, Sec. 6, Changlu Road, Fuhsin Township,
Changhua County, Taiwan 506
Standard : 47 CFR Part 2.1091

The product was received on May 28, 2021, and testing was started from May 28, 2021 and completed on Jun. 22, 2021. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in 47 CFR Part 2.1091 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory

No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)



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Report Template No.: CB-A1_1 Ver1.1



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
2	-	Exposure evaluation	PASS	-

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen

Report Producer: Wendy Pan



1 General Description

1.1 EUT General Information

RF General Information			
Frequency Range (GHz)	Operating Frequency Range (GHz)	Test Frequency (GHz)	Modulation Type
76-81	76.019~76.705	76.36	FMCW

1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	Texas Instruments	VS-95A043	PCB	N/A	10
2	Texas Instruments	VS-95A043	PCB	N/A	10

Note: The above information was declared by manufacturer.

1.3 Table for Multiple Listing

EUT No.	Model Name	Description
1	B122-037	All the models are identical, the difference model name for difference as marketing strategy.
-	A009-010	
-	A009-026	
-	B122-037XXX-XX, B122-037XXX-XXX, A009-010XXX-XX, A009-010XXX-XXX, A009-026XXX-XX, A009-026XXX-XXX, A009-XXX-XX and A009-XXX-XXX (Where X may be any alpha character "a"-"z", "A"-"Z", or numeric character "0"-"9", or -, (,), or blank or combination of alpha and numeric characters.)	

Note 1: From the above model B122-037 was selected as representative model for the test and its data was recorded in this report.

Note 2: The above information was declared by manufacturer.

1.4 Accessories

N/A



1.5 Testing Location

Testing Location Information	
Test Lab. : Sporton International Inc. Hsinchu Laboratory	
Hsinchu	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)
(TAF: 3787)	TEL: 886-3-656-9065 FAX: 886-3-656-9085
	Test site Designation No. TW3787 with FCC.
	Conformity Assessment Body Identifier (CABID) TW3787 with ISCED.



2 Maximum Permissible Exposure

2.1 Limit of Maximum Permissible Exposure

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
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
300-1500	-	-	f/300	<6
1500-100,000	-	-	5	<6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (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

Note: f = frequency in MHz ; *Plane-wave equivalent power density

2.2 MPE Calculation Method

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } Pd \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

E = Electric field (V/m)

P = RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$



2.3 Calculated Result and Limit

Exposure Environment: General Population / Uncontrolled Exposure

Test Freq. (GHz)	DG (dBi)	EIRP-Average (dBm)	Tune-up (dBm)	EIRP-Average (mW)	Power Density(S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Result
76.36	10	15.68	16.18	41.54	0.00827	1.00	PASS

Note: The above antenna gain was declared by manufacturer.

————THE END————