Product Name:	LucanusAir Mag
Product Model No.:	CML005
Test Auxiliary:	Storage Battery, Phone
Test Auxiliary Model No.:	ZKT-00, ZKT-01
Transmitting mode	Keep the EUT in continuously wireless charging mode
Power supply:	Input: DC 12V/1.67A, 9V/2A, 5V/2A Output: 15W, 10W, 7.5W, 5W
Test Description:	Phone Battery > 98%, =50% and < 1% are tested, and the worst is < 1%.

Test Modes:		
Mode 1	Storage Battery (12V/1.67A) + EUT + Phone	Record
Mode 2	Storage Battery (9V/2A) + EUT + Phone	
Mode 3	Storage Battery (5V/2A) + EUT + Phone	
N/A		

RF Exposure Evaluation

1 Measuring Standard

1.1 KDB 680106 RF Exposure Wireless Charging Apps v03r01

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement y ±U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainly
1	H-filed	±0.93dB
2	E-filed	±0.51dB

2 Requirements

According to the item 5 of KDB 680106 v03r01:

Inductive wireless power transfer applications that meet all of the following requirements are excluded from submitting an RF exposure evaluation.

(1) Power transfer frequency is less than 1MHz.

(2) Output power from each primary coil is less than or equal to 15 watts.

(3) The system may consist of more than one source primary coils, charging one or more clients. If more than one primary coil is present, the coil pairs may be powered on at the same time.

(4) Client device is placed directly in contact with the transmitter.

(5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).

(6) The aggregate H-field strengths anywhere at or beyond 15 cm surrounding the device, and 20 cm away from the surface from all coils that by design can simultaneously transmit, and while those coils are simultaneously energized, are demonstrated to be less than 50% of the applicable MPE limit.

Remark: Meet all the above requirements.

Limits

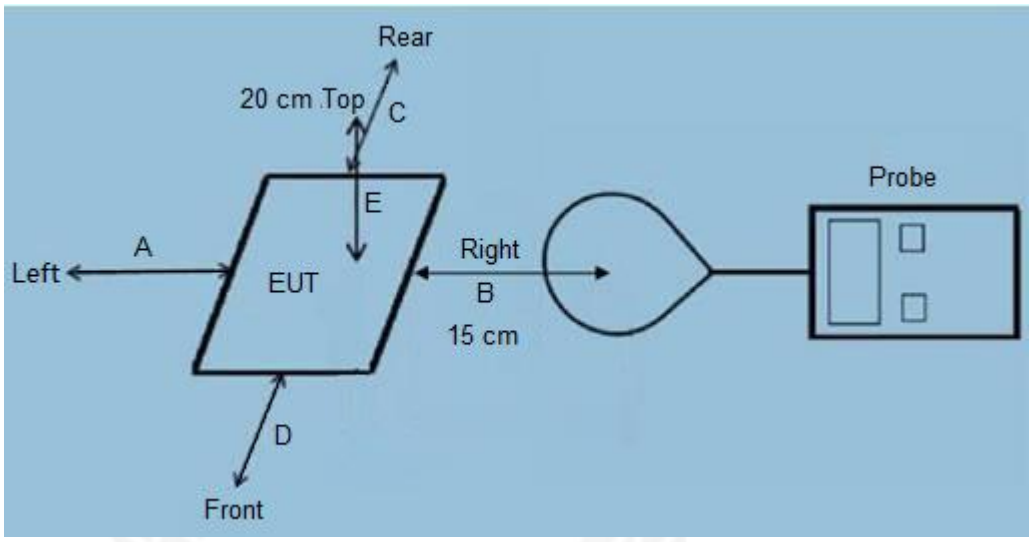
The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled 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
300-1500	/	/	f/300	6
1500-100,000	/	/	5	6
(B) Limits for General Population/Uncontrolled Exposure				
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
RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).

3 Test Setup



4 Test Procedure

1) The RF exposure test was performed in anechoic chamber.

2) The measurement probe was placed at test distance (15 cm from all sides and 20 cm from the top) which is between the edge of the charger and the geometric center of probe.

3) The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.

4) The EUT was measured according to the dictates of KDB 680106 v03r01.

Remark：The EUT's test position A, B, C, D and E is valid for the E and H field measurements.

5 Test Instruments list

Test Equipment	Manufacturer	Model No.	SN.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
Exposure Level Tester	Narda	ELT-400	N-0231	June. 26 2022	June. 25 2023
Magnetic field probe 100cm^2	Narda	ELT probe 100cm^2	M0675	June. 26 2022	June. 25 2023

6 Test Result

H-Filed Strength at 15 cm from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Limits (A/m)
0.115-0.205	0.86	0.83	0.82	0.85	1.63

H-Filed Strength at 20 cm from the top of the EUT (A/m)

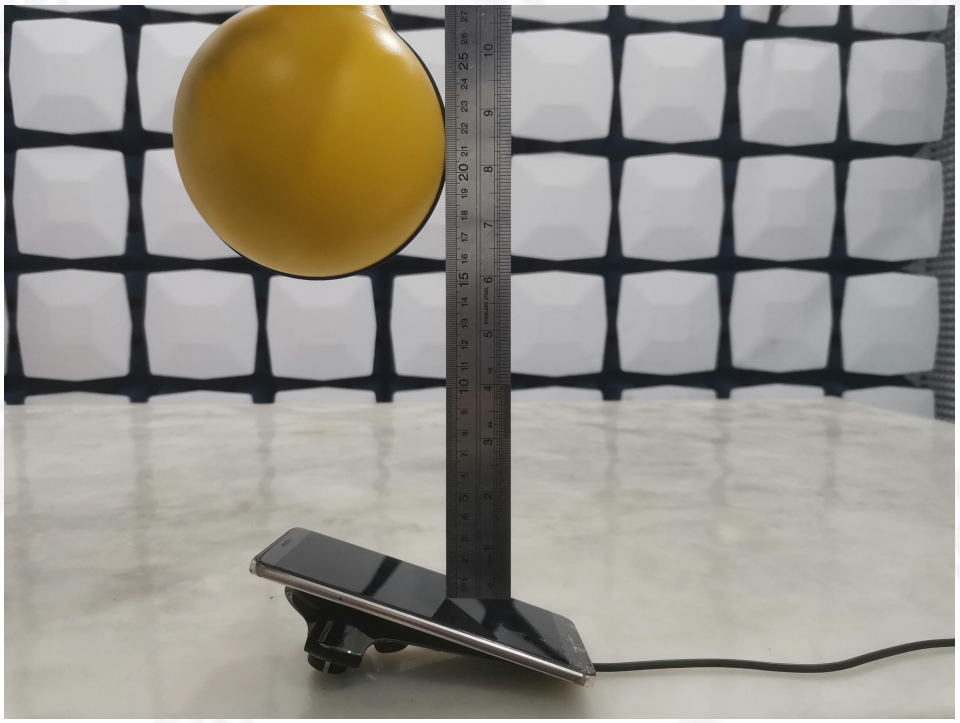
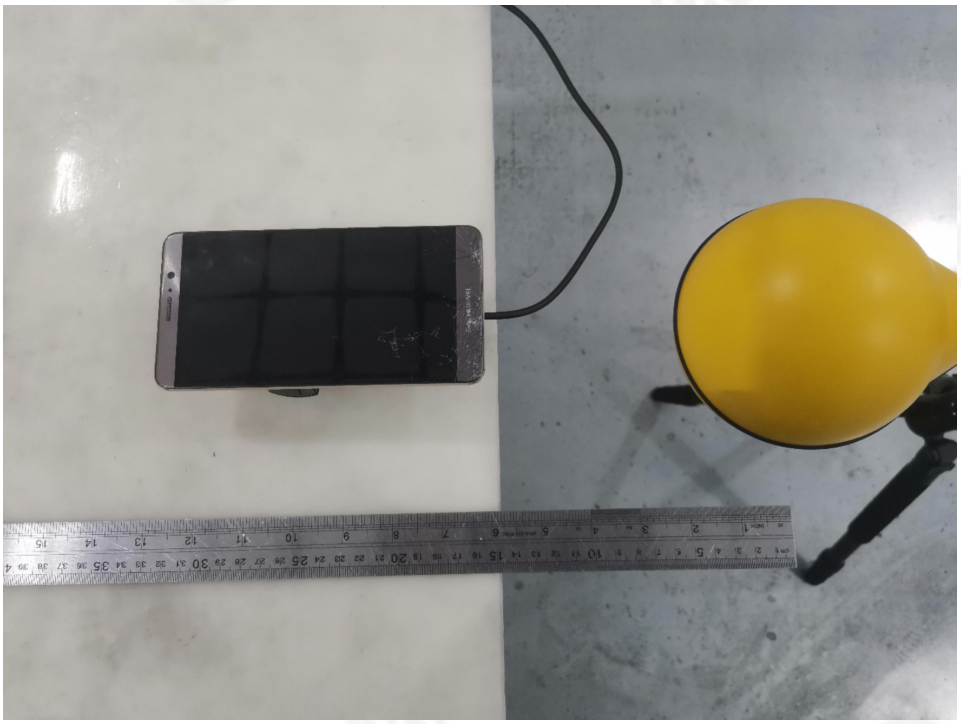
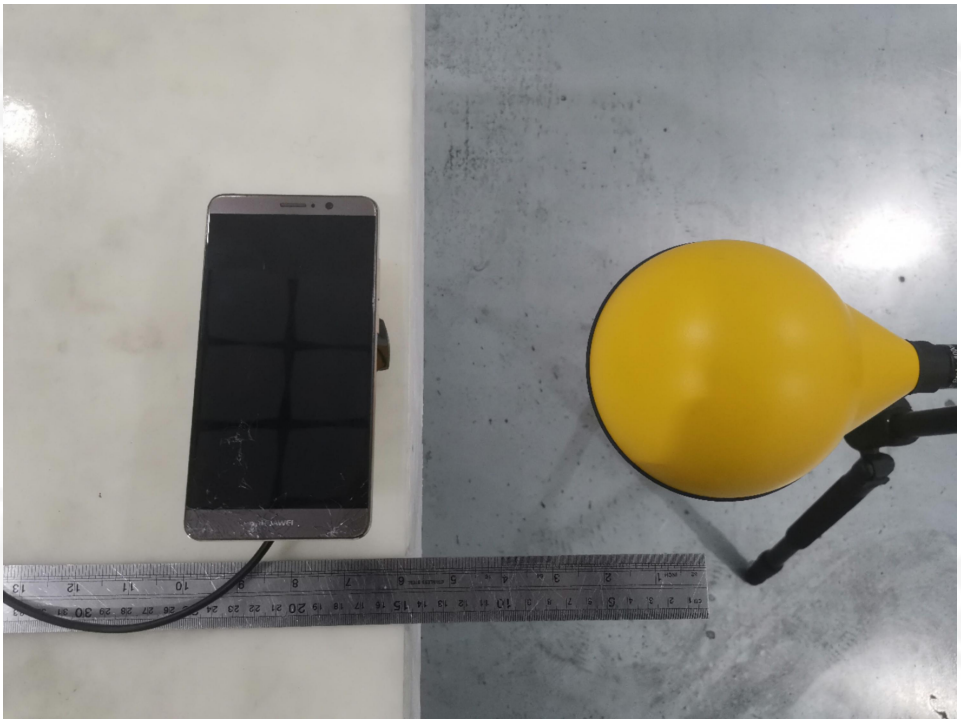
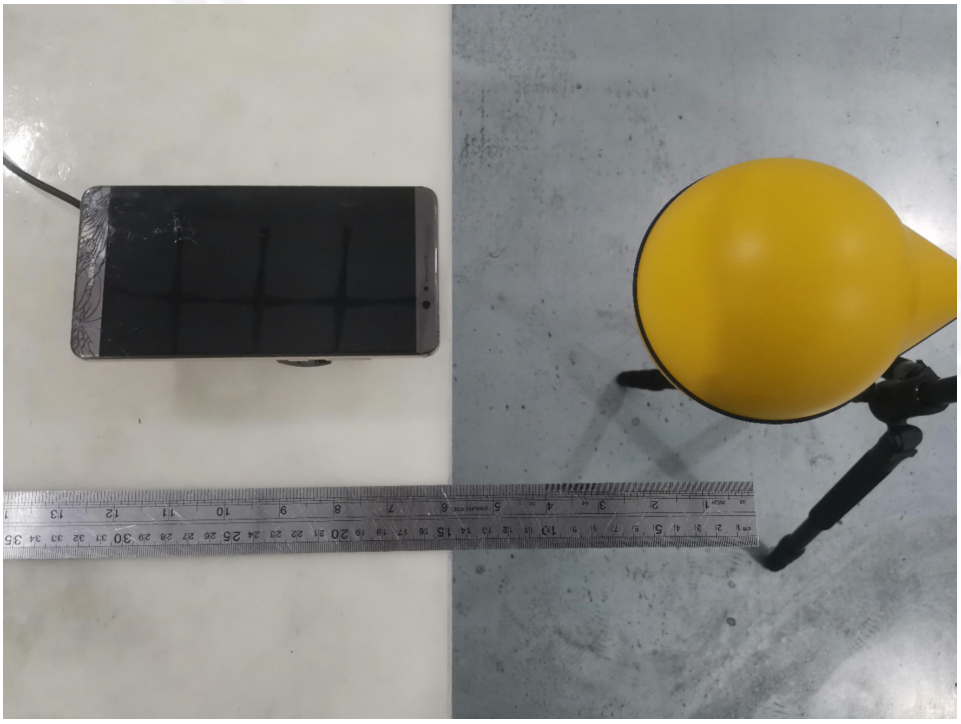
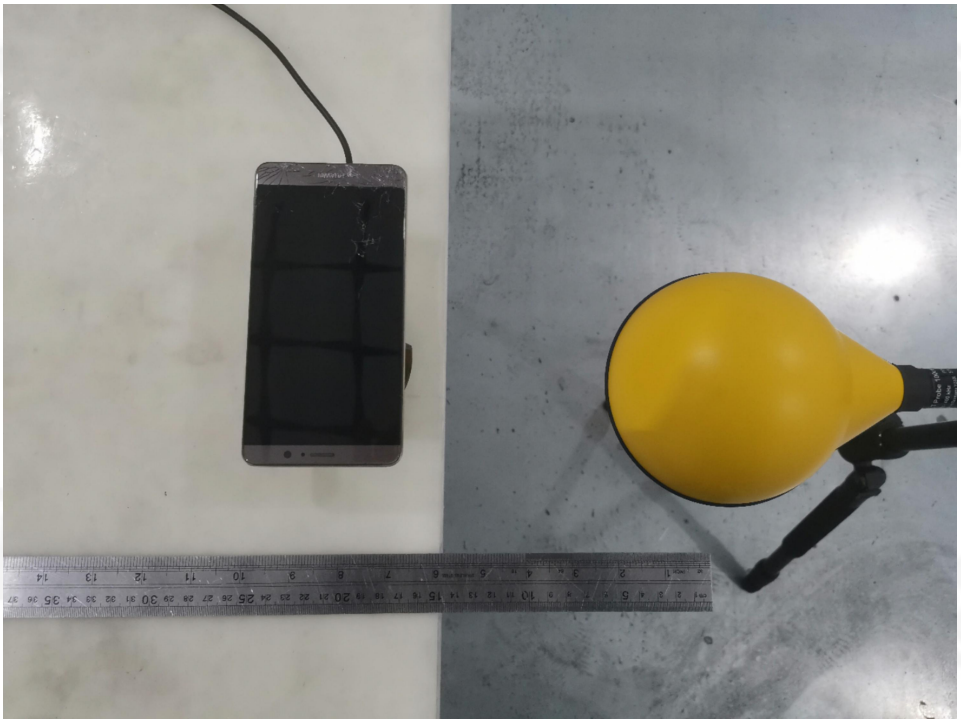
Frequency Range (MHz)	Test Position E	Limits (A/m)
0.115-0.205	0.84	1.63

H-Filed Strength at 15 cm from the edges surrounding the EUT (uT)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Limits (uT)
0.115-0.205	1.08	1.04	1.03	1.06	2.04

H-Filed Strength at 20 cm from the top of the EUT (uT)

Frequency Range (MHz)	Test Position E	Limits (uT)
0.115-0.205	1.05	2.04

Remark: A/m = uT/1.25, so uT = A/m*1.25.

7 Test Set-up Photo