RF Exposure Evaluation

FCC ID: 2A3QY-DT-2101

1. Client Information

Applicant	:	NOA THE BRAND PTY LTD
Address	:	Level 8, 76-80 Clarence Street Sydney NSW 2000 Australia
Manufacturer	:	NOA THE BRAND PTY LTD
Address	:	Level 8, 76-80 Clarence Street Sydney NSW 2000 Australia

2. General Description of EUT

EUT Name	:	DAYTRIPPER	
Model(s)	:	DT-2101	
Sample ID	:	TBBJ-20211108-27_01-01	
Product Description	:	Operation Frequency:	110KHz-205KHz
		Modulation Type:	ASK
		Antenna:	Coil Antenna
Power Supply	:	Type-C input: DC 5V/3A, DC 9V/2.2A, DC12V/1.67A Wireless Charge Output: 15W Max	
Software Version	:	CWT1000_HaiRuiTaiKe_M1-TL10A605-10W-YJX_A11_lib6.0t38_V01.01_20201223(1)(1)	
Hardware Version	:	YOUYUAN-TL10A502-20200601-V2.0-PCBA	
Connecting I/O Port(S)	:	Please refer to the User's Manual	
Accessories	:	HUAWEI Mate 40	

Note: More test information about the EUT please refer the RF Test Report.

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RF Exposure Considerations

1. Measuring Standard

KDB 680106 D01 RF Exposure Wireless Charging App v03.

2. Requirements

According to the item 5.2 of KDB 680106 D01v03:
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 1 MHz.

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

(3) The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of coils.

(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).

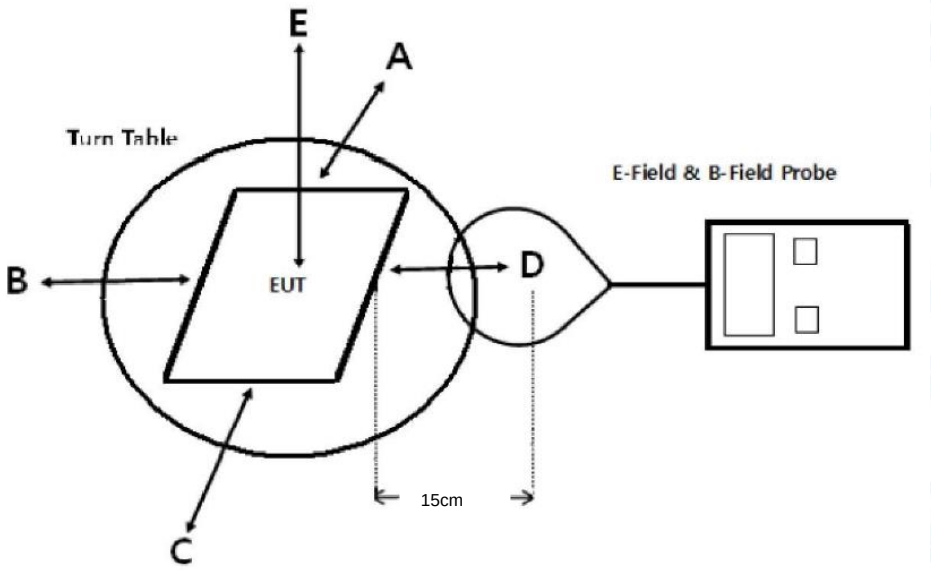
(6) The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.

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



Note: The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface.

4.Test Procedure

1) The RF exposure test was performed in anechoic chamber.
2) The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface.
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 D01 v03.

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

5. Equipment Approval Considerations

The EUT does comply with item 5.2 of KDB 680106 D01v03 as follows table;

Requirements of KDB 680106 D01	Yes / No	Description
Power transfer frequency is less than 1 MHz	Yes	The device operate in the frequency range 110.0 KHz - 205 KHz
Output power from each primary coil is less than 15 watts	Yes	The maximum output power of the primary coil is 10W.
The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of coils.	Yes	The transfer system includes only single coil.
Client device is placed directly in contact with the transmitter.	Yes	Client device is placed directly in contact with the transmitter.
Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).	No	Mobile exposure conditions and mobile exposure conditions (Specific reference TCB Workshop Wireless Power Transfer Updates)
The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.	Yes	The EUT H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.

In all other cases, unless excluded above, an RF exposure evaluation report must be reviewed and accepted through a KDB or PBA inquiry to enable authorization of the equipment. When evaluation is required to show compliance; for example, using field strength, power density, SAR measurements or computational modeling etc., the specific authorization requirements will be determined based on the results of the RF exposure evaluation

6. Test Equipment List

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Magnetic field meter	NARDA	ELT-400	EE030	Sep. 10, 2021	Sep. 09, 2022

7. Deviation From Test Standard

No deviation

8. Mode of operation during the test / Test peripherals used

Test Modes:		
TM1	AC/DC Adapter + EUT + Mobile Phone (Battery Status: <1%)	record
TM2	AC/DC Adapter + EUT + Mobile Phone (Battery Status: <50%)	record
TM3	AC/DC Adapter + EUT + Mobile Phone (Battery Status: <99%)	record

9. Test Result

E-Filed Strength at 15 cm from the edges surrounding the EUT and 15 cm above the top surface

Charging Battery Level	Frequency Range (MHz)	Measured E-Field Strength Values (V/m)					E-Field Strength 50% Limits (V/m)	E-Field Strength Limits (V/m)
		Test Position						
		A	B	C	D	E		
1%	0.135	42.535	43.608	42.509	43.731	47.124	307.0	614.0
50%	0.135	46.748	46.968	48.387	47.145	42.968	307.0	614.0
99%	0.135	51.074	49.386	42.977	34.683	41.846	307.0	614.0

Note: V/m= A/m *377

H-Filed Strength at 15 cm from the edges surrounding the EUT and 15 cm above the top surface

Charging Battery Level	unit	Frequenc y Range (MHz)	Measured H-Field Strength Values (A/m)					H-Field Strength 50% Limits (A/m)	H-Field Strength Limits (A/m)
			Test Position						
			A	B	C	D	E		
1%	uT	0.135	0.1412	0.1437	0.2036	0.1451	0.1562	--	--
1%	A/m	0.135	0.112	0.114	0.161	0.115	0.124	0.815	1.63
50%	uT	0.135	0.153	0.1424	0.1637	0.1562	0.1424	--	--
50%	A/m	0.135	0.124	0.114	0.131	0.125	0.114	0.815	1.63
99%	uT	0.135	0.2024	0.1637	0.1426	0.1151	0.1387	--	--
99%	A/m	0.135	0.162	0.131	0.114	0.092	0.112	0.815	1.63

H-Field Strength at 0cm from the top surface of the EUT

Charging Battery Level	Unit	Frequency Range (MHz)	Measured H-Field Strength Values (A/m)	FCC H-Field Strength 50% Limits (A/m)	FCC H-Field Strength Limits (A/m)
			Test Position E		
1%	uT	0.135	0.1336	--	--
1%	A/m	0.135	0.106	0.815	1.63
50%	uT	0.135	0.1224	--	--
50%	A/m	0.135	0.098	0.815	1.63
99%	uT	0.135	0.1374	--	--
99%	A/m	0.135	0.11	0.815	1.63

Note: A/m=uT/1.25

H-Field Strength at 2cm from the top surface of the EUT

Charging Battery Level	Unit	Frequency Range (MHz)	Measured H-Field Strength Values (A/m)	FCC H-Field Strength 50% Limits (A/m)	FCC H-Field Strength Limits (A/m)
			Test Position E		
1%	uT	0.135	0.1336	--	--
1%	A/m	0.135	0.106	0.815	1.63
50%	uT	0.135	0.1224	--	--
50%	A/m	0.135	0.098	0.815	1.63
99%	uT	0.135	0.1372	--	--
99%	A/m	0.135	0.11	0.815	1.63

H-Field Strength at 4cm from the top surface of the EUT

Charging Battery Level	Unit	Frequency Range (MHz)	Measured H-Field Strength Values (A/m) Test Position E	FCC H-Field Strength 50% Limits (A/m)	FCC H-Field Strength Limits (A/m)
1%	uT	0.135	0.1335	--	--
1%	A/m	0.135	0.105	0.815	1.63
50%	uT	0.135	0.1223	--	--
50%	A/m	0.135	0.097	0.815	1.63
99%	uT	0.135	0.1374	--	--
99%	A/m	0.135	0.11	0.815	1.63

H-Field Strength at 6cm from the top surface of the EUT

Charging Battery Level	Unit	Frequency Range (MHz)	Measured H-Field Strength Values (A/m) Test Position E	FCC H-Field Strength 50% Limits (A/m)	FCC H-Field Strength Limits (A/m)
1%	uT	0.135	0.1335	--	--
1%	A/m	0.135	0.105	0.815	1.63
50%	uT	0.135	0.1222	--	--
50%	A/m	0.135	0.096	0.815	1.63
99%	uT	0.135	0.1372	--	--
99%	A/m	0.135	0.12	0.815	1.63

H-Field Strength at 8cm from the top surface of the EUT

Charging Battery Level	Unit	Frequency Range (MHz)	Measured H-Field Strength Values (A/m) Test Position E	FCC H-Field Strength 50% Limits (A/m)	FCC H-Field Strength Limits (A/m)
1%	uT	0.135	0.1334	--	--
1%	A/m	0.135	0.105	0.815	1.63
50%	uT	0.135	0.1223	--	--
50%	A/m	0.135	0.097	0.815	1.63
99%	uT	0.135	0.1376	--	--
99%	A/m	0.135	0.12	0.815	1.63

H-Field Strength at 10cm from the top surface of the EUT

Charging Battery Level	Unit	Frequency Range (MHz)	Measured H-Field Strength Values (A/m) Test Position E	FCC H-Field Strength 50% Limits (A/m)	FCC H-Field Strength Limits (A/m)
1%	uT	0.135	0.1337	--	--
1%	A/m	0.135	0.105	0.815	1.63
50%	uT	0.135	0.1222	--	--
50%	A/m	0.135	0.095	0.815	1.63
99%	uT	0.135	0.1371	--	--
99%	A/m	0.135	0.11	0.815	1.63

H-Field Strength at 12cm from the top surface of the EUT

Charging Battery Level	Unit	Frequency Range (MHz)	Measured H-Field Strength Values (A/m) Test Position E	FCC H-Field Strength 50% Limits (A/m)	FCC H-Field Strength Limits (A/m)
1%	uT	0.135	0.1336	--	--
1%	A/m	0.135	0.106	0.815	1.63
50%	uT	0.135	0.1224	--	--
50%	A/m	0.135	0.098	0.815	1.63
99%	uT	0.135	0.1374	--	--
99%	A/m	0.135	0.11	0.815	1.63

H-Field Strength at 14cm from the top surface of the EUT

Charging Battery Level	Unit	Frequency Range (MHz)	Measured H-Field Strength Values (A/m) Test Position E	FCC H-Field Strength 50% Limits (A/m)	FCC H-Field Strength Limits (A/m)
1%	uT	0.135	0.1334	--	--
1%	A/m	0.135	0.105	0.815	1.63
50%	uT	0.135	0.1223	--	--
50%	A/m	0.135	0.097	0.815	1.63
99%	uT	0.135	0.1373	--	--
99%	A/m	0.135	0.11	0.815	1.63

H-Field Strength at 16cm from the top surface of the EUT

Charging Battery Level	Unit	Frequency Range (MHz)	Measured H-Field Strength Values (A/m) Test Position E	FCC H-Field Strength 50% Limits (A/m)	FCC H-Field Strength Limits (A/m)
1%	uT	0.135	0.1332	--	--
1%	A/m	0.135	0.102	0.815	1.63
50%	uT	0.135	0.1221	--	--
50%	A/m	0.135	0.095	0.815	1.63
99%	uT	0.135	0.1371	--	--
99%	A/m	0.135	0.12	0.815	1.63

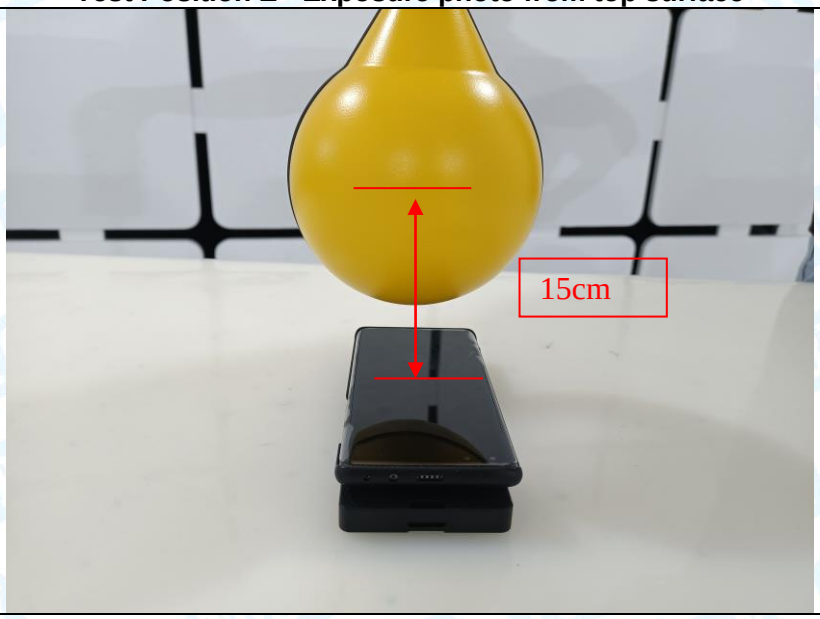
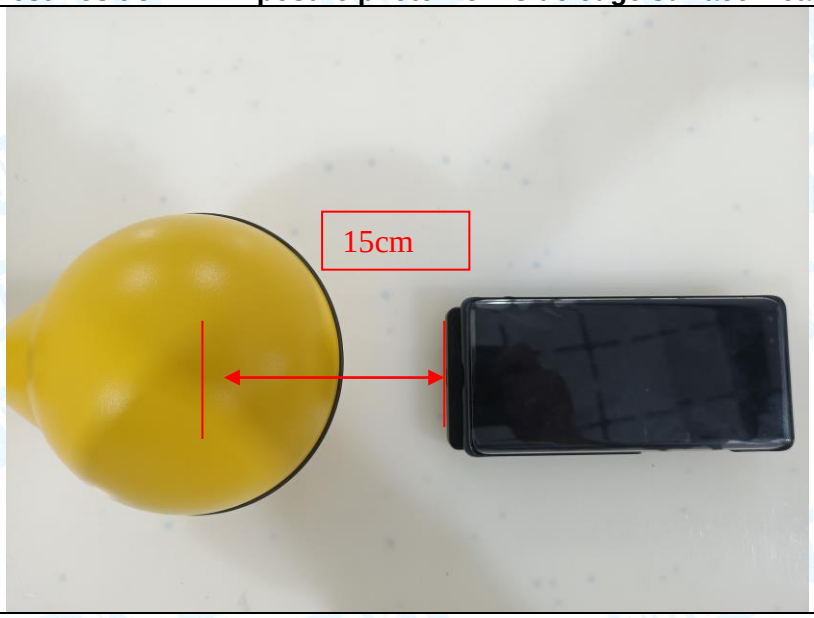
H-Field Strength at 18cm from the top surface of the EUT

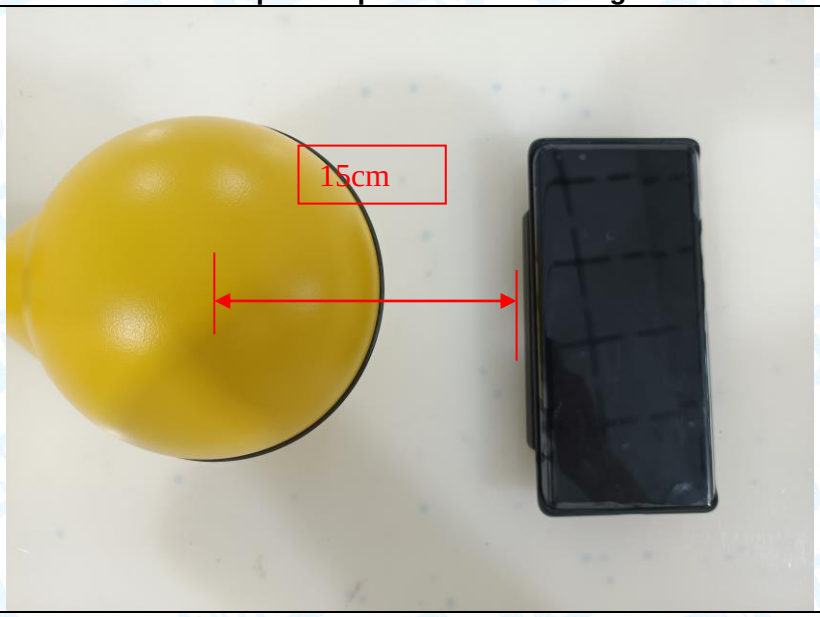
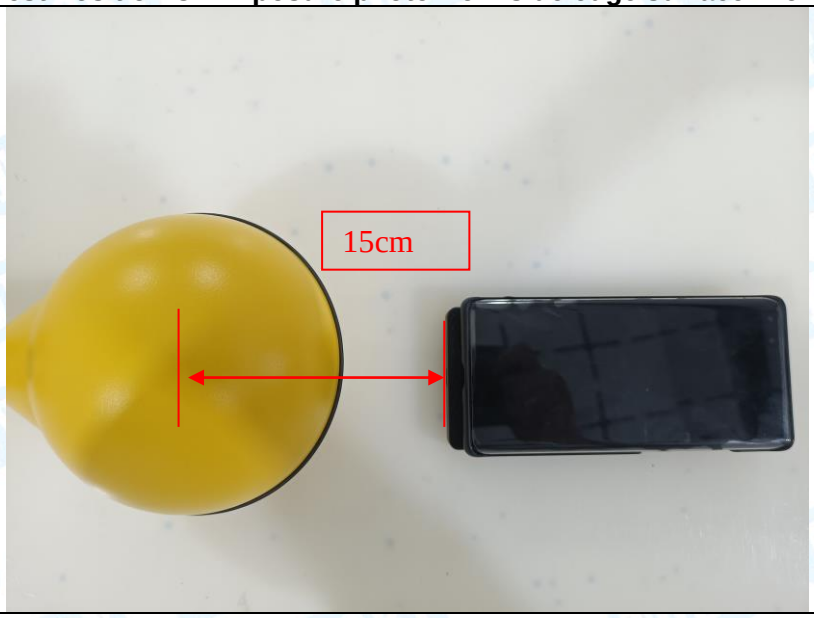
Charging Battery Level	Unit	Frequency Range (MHz)	Measured H-Field Strength Values (A/m) Test Position E	FCC H-Field Strength 50% Limits (A/m)	FCC H-Field Strength Limits (A/m)
1%	uT	0.135	0.1331	--	--
1%	A/m	0.135	0.104	0.815	1.63
50%	uT	0.135	0.1222	--	--
50%	A/m	0.135	0.097	0.815	1.63
99%	uT	0.135	0.1372	--	--
99%	A/m	0.135	0.12	0.815	1.63

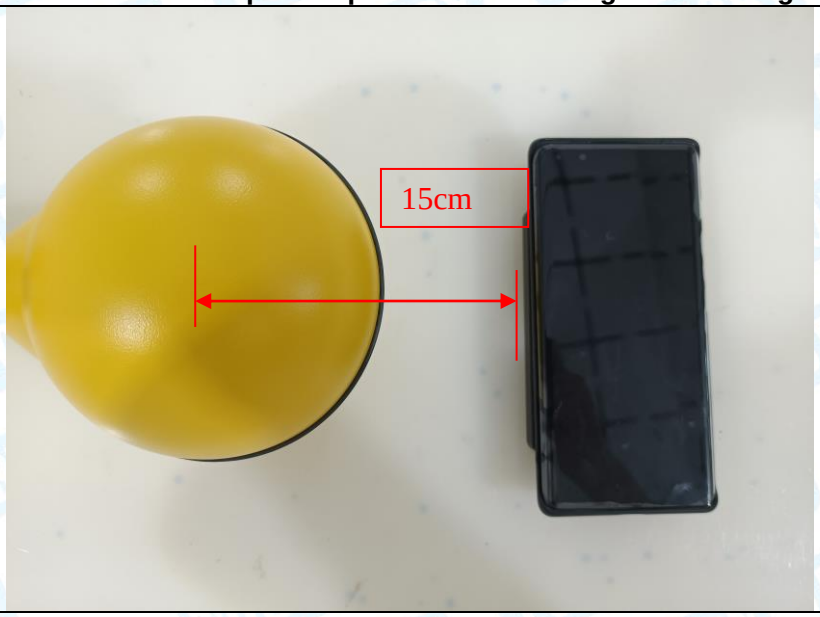
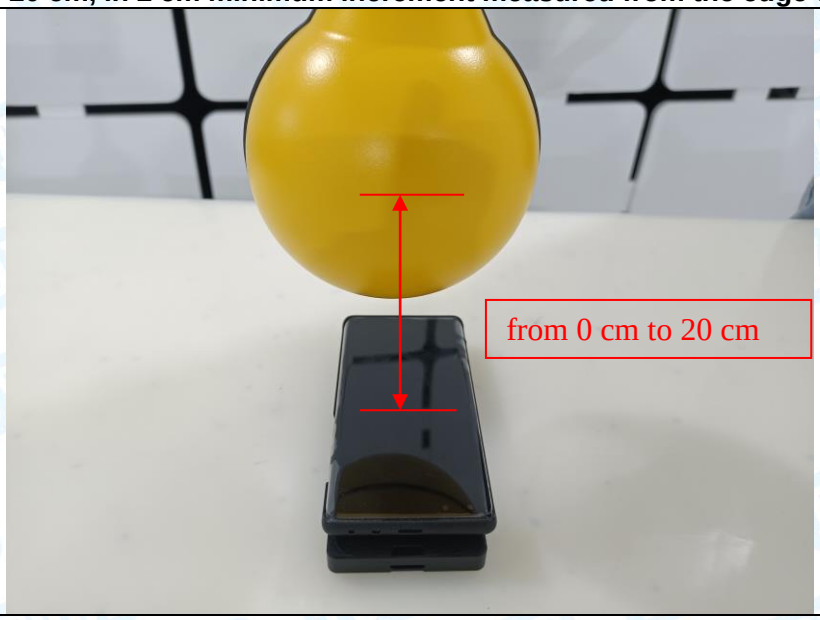
H-Field Strength at 20cm from the top surface of the EUT

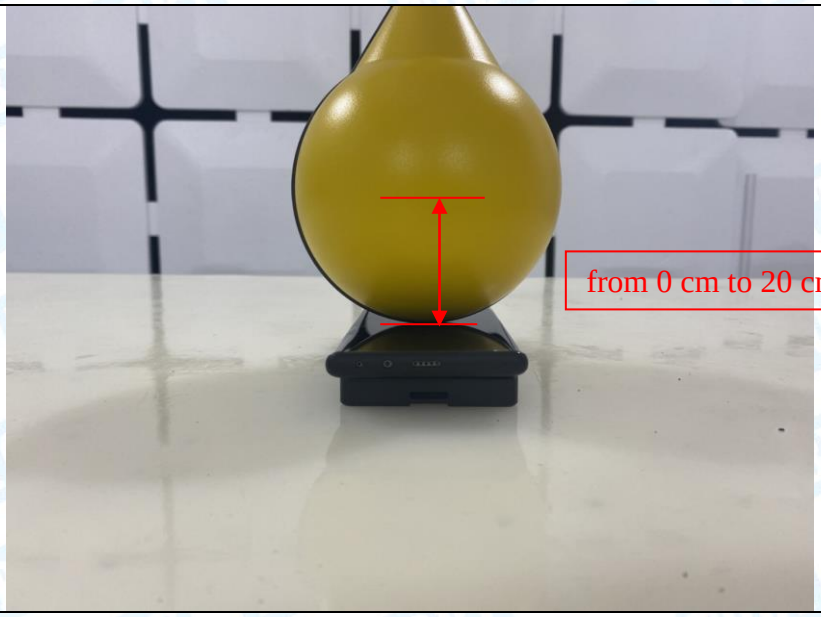
Charging Battery Level	Unit	Frequency Range (MHz)	Measured H-Field Strength Values (A/m) Test Position E	FCC H-Field Strength 50% Limits (A/m)	FCC H-Field Strength Limits (A/m)
1%	uT	0.135	0.1331	--	--
1%	A/m	0.135	0.104	0.815	1.63
50%	uT	0.135	0.1221	--	--
50%	A/m	0.135	0.095	0.815	1.63
99%	uT	0.135	0.1372	--	--
99%	A/m	0.135	0.13	0.815	1.63

10. Test Set-up Photo

H-Field Strength-15cm
Test Position E - Exposure photo from top surface

H-Field Strength-15cm
Test Position A - Exposure photo from side edge surface-Rear


H-Field Strength-15cm
Test Position B - Exposure photo from side edge surface-Left

H-Field Strength-15cm
Test Position C - Exposure photo from side edge surface-Front


H-Field Strength-15cm
Test Position D - Exposure photo from side edge surface-Right

H-Field Strength-0 cm to 20 cm
Test Position E - Exposure photo from top surface
from 0 cm to 20 cm, in 2 cm minimum increment measured from the edge of the device




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