

RF EXPOSURE TEST REPORT



Applicant	Shenzhen Topband Co., Ltd.
Address	Topband Industrial Park, Liyuan Industrial Zone, Tangtou, Shiyan, Bao'an, Shenzhen, 518108, Guangdong, China

Manufacturer or Supplier	Shenzhen Topband Co., Ltd.
Address	Topband Industrial Park, Liyuan Industrial Zone, Tangtou, Shiyan, Bao'an, Shenzhen, 518108, Guangdong, China
Product	Workflow Case Battery Pack
Brand Name	Urban Armor Gear, LLC.
Model	114013BW4040
Additional Model & Model Difference	114023BW4130, 114022BW4130, 114014BW4040, 114024BW4130, 114012BW4040; see items 1.1
Date of tests	Jul. 13, 2022

The submitted sample of the above equipment has been tested according to the requirements of the following standard:

- 47 CFR PART 1, Subpart I, Section 1.1310
- KDB 680106 D01

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

<p>Tested by Lucas Chen Project Engineer / EMC Department</p>	<p>Approved by Glyn He Assistant Manager / EMC Department</p>
	
	<p>Date: Aug. 09, 2022</p>

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**BUREAU
VERITAS**

Test Report No.: FM2206WDG0214

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FM2206WDG0214	Original release	Aug. 09, 2022



1. GENERAL INFORMATION

1.1. GENERAL DESCRIPTION OF EUT

FCC ID	2ADDW-114013BW
PRODUCT	Workflow Case Battery Pack
MODEL NO.	114013BW4040
ADDITIONAL MODELS	114023BW4130, 114022BW4130, 114014BW4040, 114024BW4130, 114012BW4040
POWER SUPPLY	Input: DC 5V from Base Support or DC 5V from Type-C; Wireless Output : 5W
MODULATION TECHNOLOGY	ASK
OPERATING FREQUENCY RANGE	111KHz ~ 205KHz
ANTENNA TYPE	Coil Antenna
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	N/A

NOTES:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. For the test results, the EUT had been tested with all conditions, but only the worst case was shown in test report.
3. Please refer to the EUT photo document (Reference No.: 2206WDG0214-1) for detailed product photo.
4. Additional models (see above table) are identical with the test model 114013BW4040 except the appearance, trade name and model number for trading purpose.
5. The EUT can be powered by adapter as list as attach:

ADAPTER	
BRAND:	N/A
MODEL:	XH-UL0540-A1
INPUT:	AC 100-240V, 50/60Hz, 0.5A Max
OUTPUT:	DC 5V/4A
DC CABLE:	Unshielded, detachable, 120cm



2. RF EXPOSURE MEASUREMENT

2.1 LIMITS

§ 1.1310 The criteria listed in table 1 shall be used to evaluate the environmental impact of human exposure to radiofrequency(RF) radiation as specified in § 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of § 2.1093 of this chapter.

TABLE 1—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

NOTE 1 TO TABLE 1: 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.

NOTE 2 TO TABLE 1: 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.

Reference KDB 680106 D01 RF Exposure Wireless Charging App v03

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.

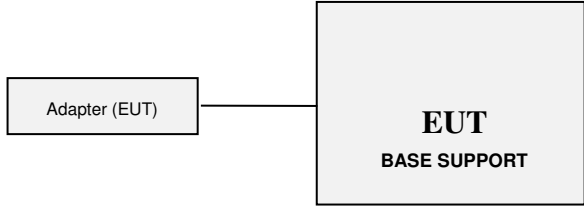
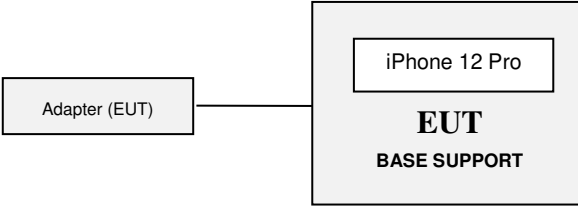
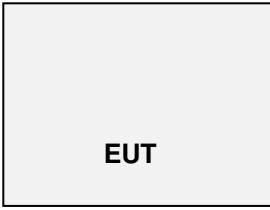
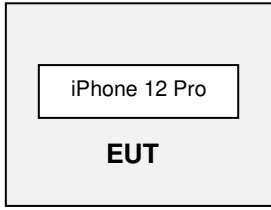
2.2 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested with associated equipment below

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	iPhone 12 Pro	Apple	A2408	N/A	N/A
2	Adapter	N/A	N/A	N/A	N/A

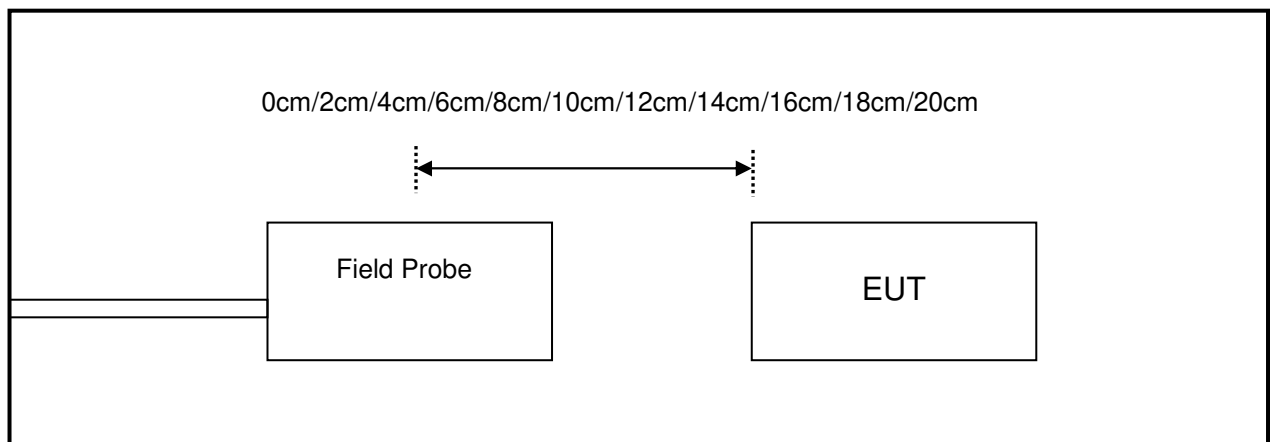


2.3 CONFIGURATION OF SYSTEM UNDER TEST

Standby (Base Support + Adapter input)	Charging Mode with iPhone 12 Pro (Base Support + Adapter input)
	
Standby (Full Battery)	Charging Mode with iPhone 12 Pro (Full Battery)
	

Note: The worst condition is when the phone is charged at 10%, so the test is performed when the phone is charged at 10%.

2.4 TEST SETUP FOR WPC



Note: Measurements should be made from all sides, with the 0 cm to 20 cm, in 2 cm minimum increment measured from the edge of the device, measured from the center of the probe(s) to the edge of the device.



2.5 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT:

Tabulated list of the error components and uncertainty values contributing to the total measurement uncertainty

Combined standard uncertainty and expanded uncertainty (for $k \geq 2$) of each measurement

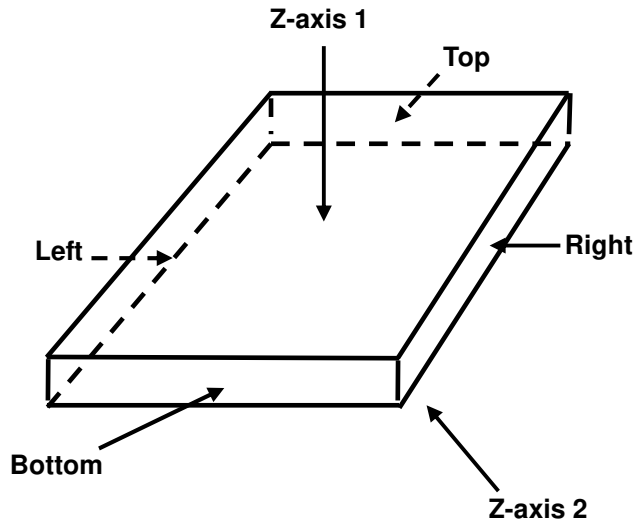
PARAMETER	UNCERTAINTY
E-Field Measurement	± 0.003 V/m
H-Field Measurement	± 0.001 μ T

2.1 EQUIPMENTS USED DURING TEST

Item	Test Equipment	Manufacturer	Model No.	S/No	Due date.
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	8m*4m*4m	NSEMC003	2023-03-19
2	Electric and Magnetic Field Probe-Analyzer	Narda	EHP-200A	180ZX10216	Mar. 17, 23
3	Test Software	Narda	EHP200-TS	V1.94	N/A

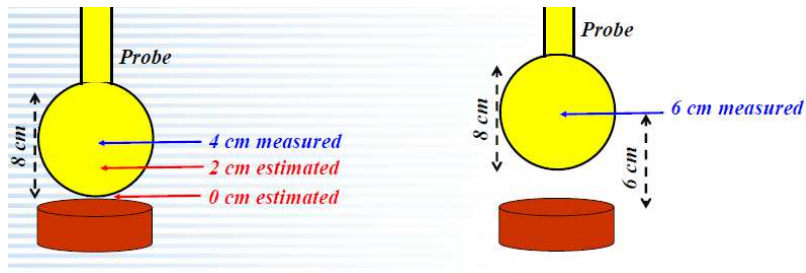
- NOTE:**
1. The test was performed in RS chamber. (Chenwu)
 2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
 3. The diameter of the probe is 8 cm.

2.2 TEST POINT DESCRIPTION



Notes:

1. Z-axis 1, It means the load surface.
2. Z-axis 2, It means the back of the load surface.





2.3 TEST RESULTS

Base Support + Adapter input Mode

Standby Mode 1: EUT Base support input + Standby

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	0.97	1.02	1.15	0.99	2.65	1.39
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-613.03	-612.98	-612.85	-613.01	-611.35	-612.61
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-306.03	-305.98	-305.85	-306.01	-304.35	-305.61

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.228	0.228	0.229	0.231	0.242	0.238
Max H-Field(A/m)	0.182	0.182	0.182	0.184	0.193	0.189
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.448	-1.448	-1.448	-1.446	-1.437	-1.441
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.633	-0.633	-0.633	-0.631	-0.622	-0.626

Measurements was made from all sides and the top of the primary/client pair, with the 0 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

Charging Mode 2: EUT Base support input + iPhone 12 Pro operating (10% electric quantity)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	1.27	1.41	1.31	1.73	1.26	1.62
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-612.73	-612.59	-612.69	-612.27	-612.74	-612.38
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-305.73	-305.59	-305.69	-305.27	-305.74	-305.38

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.23	0.228	0.231	0.228	0.229	0.234
Max H-Field(A/m)	0.183	0.182	0.184	0.182	0.182	0.186
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.447	-1.448	-1.446	-1.448	-1.448	-1.444
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.632	-0.633	-0.631	-0.633	-0.633	-0.629

Measurements was made from all sides and the top of the primary/client pair, with the 0/2/4 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.



Charging Mode 3: EUT Base support input + iPhone 12 Pro operating (10% electric quantity)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	2.03	1.53	2.01	2.13	2.36	1.69
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-611.97	-612.47	-611.99	-611.87	-611.64	-612.31
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-304.97	-305.47	-304.99	-304.87	-304.64	-305.31

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.338	0.332	0.345	0.334	0.352	0.348
Max H-Field(A/m)	0.269	0.264	0.275	0.266	0.280	0.277
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.361	-1.366	-1.355	-1.364	-1.350	-1.353
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.546	-0.551	-0.540	-0.549	-0.535	-0.538

Measurements was made from all sides and the top of the primary/client pair, with the 6 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

Charging Mode 4: EUT Base support input + iPhone 12 Pro operating (10% electric quantity)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	1.54	1.55	1.55	2.04	1.81	1.35
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-612.46	-612.45	-612.45	-611.96	-612.19	-612.65
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-305.46	-305.45	-305.45	-304.96	-305.19	-305.65

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.268	0.245	0.238	0.242	0.302	0.308
Max H-Field(A/m)	0.213	0.195	0.189	0.193	0.240	0.245
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.417	-1.435	-1.441	-1.437	-1.390	-1.385
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.602	-0.620	-0.626	-0.622	-0.575	-0.570

Measurements was made from all sides and the top of the primary/client pair, with the 8 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.



Charging Mode 5: EUT Base support input + iPhone 12 Pro operating (10% electric quantity)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	1.21	1.32	1.29	1.31	1.34	1.21
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-612.79	-612.68	-612.71	-612.69	-612.66	-612.79
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-305.79	-305.68	-305.71	-305.69	-305.66	-305.79

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.238	0.232	0.234	0.232	0.301	0.302
Max H-Field(A/m)	0.189	0.185	0.186	0.185	0.240	0.240
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.441	-1.445	-1.444	-1.445	-1.390	-1.390
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.626	-0.630	-0.629	-0.630	-0.575	-0.575

Measurements was made from all sides and the top of the primary/client pair, with the 10 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

Charging Mode 6: EUT Base support input + iPhone 12 Pro operating (10% electric quantity)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	1.00	0.96	1.12	1.26	1.21	0.94
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-613	-613.04	-612.88	-612.74	-612.79	-613.06
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-306	-306.04	-305.88	-305.74	-305.79	-306.06

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.228	0.23	0.229	0.228	0.229	0.228
Max H-Field(A/m)	0.182	0.183	0.182	0.182	0.182	0.182
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.448	-1.447	-1.448	-1.448	-1.448	-1.448
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.633	-0.632	-0.633	-0.633	-0.633	-0.633

Measurements was made from all sides and the top of the primary/client pair, with the 12 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.



Charging Mode 7: EUT Base support input + iPhone 12 Pro operating (10% electric quantity)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	0.92	0.9	1.02	1.1	1.02	0.96
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-613.08	-613.1	-612.98	-612.9	-612.98	-613.04
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-306.08	-306.1	-305.98	-305.9	-305.98	-306.04

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.229	0.228	0.229	0.228	0.228	0.228
Max H-Field(A/m)	0.182	0.182	0.182	0.182	0.182	0.182
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.448	-1.448	-1.448	-1.448	-1.448	-1.448
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.633	-0.633	-0.633	-0.633	-0.633	-0.633

Measurements was made from all sides and the top of the primary/client pair, with the 14 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

Standby Mode 8: EUT Base support input + iPhone 12 Pro operating (10% electric quantity)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	0.86	0.78	0.75	0.71	0.69	0.72
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-613.14	-613.22	-613.25	-613.29	-613.31	-613.28
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-306.14	-306.22	-306.25	-306.29	-306.31	-306.28

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.228	0.228	0.229	0.228	0.228	0.229
Max H-Field(A/m)	0.182	0.182	0.182	0.182	0.182	0.182
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.448	-1.448	-1.448	-1.448	-1.448	-1.448
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.633	-0.633	-0.633	-0.633	-0.633	-0.633

Measurements was made from all sides and the top of the primary/client pair, with the 16 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.



Charging Mode 9: EUT Base support input + iPhone 12 Pro operating (10% electric quantity)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	3.86	3.69	3.68	4.02	4.02	3.99
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-610.14	-610.31	-610.32	-609.98	-609.98	-610.01
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-303.14	-303.31	-303.32	-302.98	-302.98	-303.01

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.228	0.229	0.23	0.228	0.227	0.229
Max H-Field(A/m)	0.182	0.182	0.183	0.182	0.181	0.182
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.448	-1.448	-1.447	-1.448	-1.449	-1.448
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.633	-0.633	-0.632	-0.633	-0.634	-0.633

Measurements was made from all sides and the top of the primary/client pair, with the 18 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

Charging Mode 10: EUT Base support input + iPhone 12 Pro operating (10% electric quantity)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	0.62	0.58	0.55	0.62	0.49	0.71
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-613.38	-613.42	-613.45	-613.38	-613.51	-613.29
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-306.38	-306.42	-306.45	-306.38	-306.51	-306.29

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.228	0.229	0.23	0.228	0.227	0.229
Max H-Field(A/m)	0.182	0.182	0.183	0.182	0.181	0.182
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.448	-1.448	-1.447	-1.448	-1.449	-1.448
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.633	-0.633	-0.632	-0.633	-0.634	-0.633

Measurements was made from all sides and the top of the primary/client pair, with the 20 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.



Charging Mode 12: EUT Base support input + iPhone 12 Pro operating (50% electric quantity)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	3.26	2.98	2.68	3.06	2.45	3.22
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-610.74	-611.02	-611.32	-610.94	-611.55	-610.78
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-303.74	-304.02	-304.32	-303.94	-304.55	-303.78

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.236	0.238	0.206	0.356	0.239	0.269
Max H-Field(A/m)	0.188	0.189	0.164	0.283	0.190	0.214
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.442	-1.441	-1.466	-1.347	-1.440	-1.416
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.627	-0.626	-0.651	-0.532	-0.625	-0.601

Measurements was made from all sides and the top of the primary/client pair, with the 0 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

Charging Mode 13: EUT Base support input + iPhone 12 Pro operating (90% electric quantity)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	3.06	2.69	2.66	2.86	2.51	2.94
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-610.94	-611.31	-611.34	-611.14	-611.49	-611.06
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-303.94	-304.31	-304.34	-304.14	-304.49	-304.06

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.236	0.231	0.235	0.305	0.236	0.258
Max H-Field(A/m)	0.188	0.184	0.187	0.243	0.188	0.205
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.442	-1.446	-1.443	-1.387	-1.442	-1.425
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.627	-0.631	-0.628	-0.572	-0.627	-0.610

Measurements was made from all sides and the top of the primary/client pair, with the 0 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.



Battery Mode

Charging Mode 1: EUT(Full Battery) + Standby (distance 0 cm)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	0.69	0.79	0.82	0.86	3.24	2.69
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-613.31	-613.21	-613.18	-613.14	-610.76	-611.31
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-306.31	-306.21	-306.18	-306.14	-303.76	-304.31

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.228	0.228	0.228	0.229	0.229	0.232
Max H-Field(A/m)	0.182	0.182	0.182	0.182	0.182	0.185
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.448	-1.448	-1.448	-1.448	-1.448	-1.445
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.633	-0.633	-0.633	-0.633	-0.633	-0.630

Measurements was made from all sides and the top of the primary/client pair, with the 0/2/4 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

Charging Mode 2: EUT(Full Battery) + iPhone 12 Pro operating (10% electric quantity) (distance 0/2/4 cm)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	0.89	0.88	0.91	0.8	0.81	2.75
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-613.11	-613.12	-613.09	-613.2	-613.19	-611.25
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-306.11	-306.12	-306.09	-306.2	-306.19	-304.25

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.265	0.256	0.242	0.242	0.272	0.282
Max H-Field(A/m)	0.211	0.204	0.193	0.193	0.217	0.225
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.419	-1.426	-1.437	-1.437	-1.413	-1.405
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.604	-0.611	-0.622	-0.622	-0.598	-0.590

Measurements was made from all sides and the top of the primary/client pair, with the 0/2/4 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.



Charging Mode 3: EUT(Full Battery) + iPhone 12 Pro operating (10% electric quantity) (distance 6 cm)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	0.54	0.56	0.58	0.55	0.56	0.67
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-613.46	-613.44	-613.42	-613.45	-613.44	-613.33
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-306.46	-306.44	-306.42	-306.45	-306.44	-306.33

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.229	0.229	0.229	0.228	0.232	0.234
Max H-Field(A/m)	0.182	0.182	0.182	0.182	0.185	0.186
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.448	-1.448	-1.448	-1.448	-1.445	-1.444
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.633	-0.633	-0.633	-0.633	-0.630	-0.629

Measurements was made from all sides and the top of the primary/client pair, with the 6 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

Charging Mode 4: EUT(Full Battery) + iPhone 12 Pro operating (10% electric quantity) (distance 8 cm)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	0.7	0.69	0.64	0.72	0.69	1.17
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-613.3	-613.31	-613.36	-613.28	-613.31	-612.83
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-306.3	-306.31	-306.36	-306.28	-306.31	-305.83

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.246	0.239	0.238	0.236	0.264	0.253
Max H-Field(A/m)	0.196	0.190	0.189	0.188	0.210	0.201
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.434	-1.440	-1.441	-1.442	-1.420	-1.429
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.619	-0.625	-0.626	-0.627	-0.605	-0.614

Measurements was made from all sides and the top of the primary/client pair, with the 8 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.



Charging Mode 5: EUT(Full Battery) + iPhone 12 Pro operating (10% electric quantity) (distance 10 cm)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	0.64	0.67	0.68	0.62	0.66	0.67
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-613.36	-613.33	-613.32	-613.38	-613.34	-613.33
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-306.36	-306.33	-306.32	-306.38	-306.34	-306.33

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.233	0.231	0.23	0.229	0.231	0.24
Max H-Field(A/m)	0.186	0.184	0.183	0.182	0.184	0.191
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.444	-1.446	-1.447	-1.448	-1.446	-1.439
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.629	-0.631	-0.632	-0.633	-0.631	-0.624

Measurements was made from all sides and the top of the primary/client pair, with the 10 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

Charging Mode 6: EUT(Full Battery) + iPhone 12 Pro operating (10% electric quantity) (distance 12 cm)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	0.59	0.54	0.51	0.54	0.64	0.68
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-613.41	-613.46	-613.49	-613.46	-613.36	-613.32
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-306.41	-306.46	-306.49	-306.46	-306.36	-306.32

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.231	0.23	0.23	0.228	0.23	0.238
Max H-Field(A/m)	0.184	0.183	0.183	0.182	0.183	0.189
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.446	-1.447	-1.447	-1.448	-1.447	-1.441
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.631	-0.632	-0.632	-0.633	-0.632	-0.626

Measurements was made from all sides and the top of the primary/client pair, with the 12 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.



Charging Mode 7: EUT(Full Battery) + iPhone 12 Pro operating (10% electric quantity) (distance 14 cm)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	0.52	0.52	0.48	0.51	0.62	0.64
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-613.48	-613.48	-613.52	-613.49	-613.38	-613.36
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-306.48	-306.48	-306.52	-306.49	-306.38	-306.36

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.228	0.228	0.228	0.229	0.232	0.231
Max H-Field(A/m)	0.182	0.182	0.182	0.182	0.185	0.184
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.448	-1.448	-1.448	-1.448	-1.445	-1.446
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.633	-0.633	-0.633	-0.633	-0.630	-0.631

Measurements was made from all sides and the top of the primary/client pair, with the 14 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

Charging Mode 8: EUT(Full Battery) + iPhone 12 Pro operating (10% electric quantity) (distance 16 cm)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	0.5	0.5	0.47	0.5	0.52	0.5
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-613.5	-613.5	-613.53	-613.5	-613.48	-613.5
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-306.5	-306.5	-306.53	-306.5	-306.48	-306.5

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.228	0.228	0.228	0.229	0.231	0.23
Max H-Field(A/m)	0.182	0.182	0.182	0.182	0.184	0.183
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.448	-1.448	-1.448	-1.448	-1.446	-1.447
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.633	-0.633	-0.633	-0.633	-0.631	-0.632

Measurements was made from all sides and the top of the primary/client pair, with the 16 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.



Charging Mode 9: EUT(Full Battery) + iPhone 12 Pro operating (10% electric quantity) (distance 18 cm)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	0.48	0.47	0.45	0.47	0.48	0.46
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-613.52	-613.53	-613.55	-613.53	-613.52	-613.54
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-306.52	-306.53	-306.55	-306.53	-306.52	-306.54

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.228	0.229	0.228	0.228	0.228	0.229
Max H-Field(A/m)	0.182	0.182	0.182	0.182	0.182	0.182
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.448	-1.448	-1.448	-1.448	-1.448	-1.448
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.633	-0.633	-0.633	-0.633	-0.633	-0.633

Measurements was made from all sides and the top of the primary/client pair, with the 18 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

Charging Mode 10: EUT(Full Battery) + iPhone 12 Pro operating (10% electric quantity) (distance 20 cm)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	0.48	0.48	0.49	0.52	0.51	0.53
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-613.52	-613.52	-613.51	-613.48	-613.49	-613.47
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-306.52	-306.52	-306.51	-306.48	-306.49	-306.47

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.228	0.229	0.228	0.229	0.229	0.231
Max H-Field(A/m)	0.182	0.182	0.182	0.182	0.182	0.184
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.448	-1.448	-1.448	-1.448	-1.448	-1.446
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.633	-0.633	-0.633	-0.633	-0.633	-0.631

Measurements was made from all sides and the top of the primary/client pair, with the 20 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.



Charging Mode 11: EUT(Full Battery) + iPhone 12 Pro operating (50% electric quantity) (distance 0 cm)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	0.88	0.86	0.91	0.79	1.26	1.75
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-613.12	-613.14	-613.09	-613.21	-612.74	-612.25
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-306.12	-306.14	-306.09	-306.21	-305.74	-305.25

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.23	0.228	0.234	0.236	0.235	0.237
Max H-Field(A/m)	0.183	0.182	0.186	0.188	0.187	0.189
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.447	-1.448	-1.444	-1.442	-1.443	-1.441
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.632	-0.633	-0.629	-0.627	-0.628	-0.626

Measurements was made from all sides and the top of the primary/client pair, with the 0 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

Charging Mode 12: EUT(Full Battery) + iPhone 12 Pro operating (90% electric quantity) (distance 0 cm)

E-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max E-Field(V/m)	0.85	0.76	0.84	0.83	0.97	1.63
Limit(V/m)	614	614	614	614	614	614
Margin (V/m)	-613.15	-613.24	-613.16	-613.17	-613.03	-612.37
50% Limit (V/m)	307	307	307	307	307	307
50% Margin (V/m)	-306.15	-306.24	-306.16	-306.17	-306.03	-305.37

H-Field Measurement						
EUT Side	Left	Right	Top	Down	Z-axis 1	Z-axis 2
Max H-Field(uT)	0.231	0.23	0.229	0.231	0.234	0.236
Max H-Field(A/m)	0.184	0.183	0.182	0.184	0.186	0.188
Limit(A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.446	-1.447	-1.448	-1.446	-1.444	-1.442
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.631	-0.632	-0.633	-0.631	-0.629	-0.627

Measurements was made from all sides and the top of the primary/client pair, with the 0 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.



**BUREAU
VERITAS**

Test Report No.: FM2206WDG0214

3. PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (FCC MPE Test Photos, Reference No.: 2204WDG0403-1)

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