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# **FCC TEST REPORT**

Client Name : Sariana LLC

Address 7365 Mission Gorge Road Suite G, San Diego, CA 92120

U.S.A.

Product Name : USB-C 2-in-1 Wireless Charging Dock

Date : Mar. 03, 2020



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## **TEST REPORT**

**Applicant** Sariana LLC Manufacturer Sariana LLC

**Product Name** USB-C 2-in-1 Wireless Charging Dock

Model No. ST-UC2WCDM, ST-UC2WCDS

 $S \land T \in C \vdash H$ Trade Mark

Input: DC 5V, 1.5A

Apple Watch Magnetic Charger Output: 2.5W Rating(s)

AirPods Charger Output: 5W

Test Standard(s) FCC Part 1.1310, 1.1307(b)

Test Method(s) KDB680106 D01 RF Exposure Wireless Charging Apps v03

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Shenzhen Anbotek Compliance Laboratory Limited is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the FCC Part 1.1307 & KDB680106 D01 requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Date of Receipt Jan. 07, 2020 Date of Test Jan. 07~Feb. 21, 2020 Compliance (%) **Anbotek** Prepared By (Engineer / Dolly Mo) Reviewer (Supervisor / Bibo Zhang) Approved & Authorized Signer (Manager / Tom Chen)

Shenzhen Anbotek Compliance Laboratory Limited





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## 1. General Information

## 1.1. Client Information

- 02		r 20, 51, 26, 20, 77, 78, 70,
Applicant	:	Sariana LLC
Address	:	7365 Mission Gorge Road Suite G, San Diego, CA 92120 U.S.A.
Manufacturer	:	Sariana LLC
Address	:	7365 Mission Gorge Road Suite G, San Diego, CA 92120 U.S.A.
Factory	:	Sariana LLC
Address	:	7365 Mission Gorge Road Suite G, San Diego, CA 92120 U.S.A.

## 1.2. Description of Device (EUT)

VIII.		- NO.	the same and the s
Product Name		USB-C 2-in-1 Wireless C	harging Dock
Model No.	:	ST-UC2WCDM, ST-UC2 (Note: All samples are the we prepare "ST-UC2WCI	e same except the model number & appearance, so
Trade Mark	:	SATEC	H I'k Anbotek Anbotek Anbotek
Test Power Supply	:	AC 120V, 60Hz for adapte	er Anbotek Anbotek Anbotek Anbotek
Test Sample No.	:	1-2-1(Normal Sample), 1	-2-1(Engineering Sample)
C C		Operation Frequency:	Apple Watch Magnetic Charger: 110.1-205KHz AirPods Charger: 110.1-205KHz
Product		Modulation Type:	FSK Anborek Anborek Anborek
Description		Antenna Type:	Inductive loop coil Antenna
		Antenna Gain(Peak):	0 dBi Anbotek Anbotek Anbotek Anbotek
VI. VII.		10.	0.00

**Remark:** 1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.



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## 1.3. Auxiliary Equipment Used During Test

		Product: AppleMacBook
		M/N: A1708
		CMIIT ID:2016AJ5746
Notebook	1:	Input Rating: 20.3V/3A
		Adapter:
		Input: 100-240V, 50-60HZ, 1.5A
		Output: 20.3V/3A (USB PD) or 9V/3A(USB PD) or 5.2V/2.4A
Apple Watch		Manufacturer: Apple
Airpods	:	Manufacturer: Apple

## 1.4. Test Equipment List

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Auldole	Magnetic field meter	NARDA	ELT-400	423623	Dec. 23, 2019	1 Year
2,100	E-Field Probe	Narda	EF0391	Q15221	Nov.17, 2017	3 Year
3 🖹	H-Field Probe	Narda	HF3061	Q15835	Nov.17, 2017	3 Year

## 1.5. Measurement Uncertainty

Radiation Uncertainty	:	Ur = 3.9 dB (Horizontal)	Aupore. Au	-nbotek Anbotek
		Ur = 3.8 dB (Vertical)	Anbo.	Anbotek Anbote
		hek abotek Anbotek		
Conduction Uncertainty	:	Uc = 3.4 dB	yer And	k anbotek Ant



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#### 1.6. Description of Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

#### FCC-Registration No.: 184111

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registed and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No. 184111, September 27, 2019.

#### ISED-Registration No.: 8058A

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (ISED) Innovation, Science and Economic Development Canada. The acceptance letter from the ISED is maintained in our files. Registration 8058A, March 07, 2019.

#### Test Location

Shenzhen Anbotek Compliance Laboratory Limited.

1/F, Building D, Sogood Science and Technology Park, Sanwei community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China. 518102



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#### 2. Measurement and Result

#### 2.1. Requirements

According to the item 5.b) 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 that 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 inserted in or 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/cm²)	Averaging time (minutes)
	(A) Limits for Occ	cupational/Controlled Ex	posures	
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30-300	61.4	0.163	1.0	6
300-1500	/	1	f/300	6
1500-100,000	1	1	5	6
	(B) Limits for Genera	l Population/Uncontrolle	d Exposure	•
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30-300	27.5	0.073	0.2	30
300-1500	1	1	f/1500	30
1500-100,000	/	1	1.0	30

F=frequency in MHz

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).



Code:AB-RF-05-a

Hotline

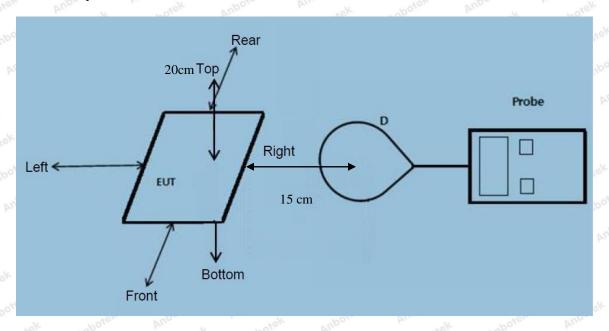


<sup>\*=</sup>Plane-wave equivalent power density



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#### 2.2. Test Setup



Note: Measurements should be made at 15 cm surrounding the EUT and 20cm above the top surface of the EUT.

#### 2.3. Test Procedure

- 1) The RF exposure test was performed in anechoic chamber.
- 2) The measurement probe was placed at required test distance 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. (A is the right, B is the back, C is the left, D is the front, and E is the top.)
- 4) The EUT was measured according to the dictates of KDB 680106 D01 v03.

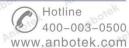
#### Remark

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

#### 2.4. Test Result

- 2.4.1. Equipment Approval Considerations item 5.b of KDB 680106 D01 v03.
- 1) Power transfer frequency is less that 1 MHz
  - The device operate in the frequency range 110.1~205KHz
- 2) Output power from each primary coil is less than 15 watts
  - The maximum output power of the primary coil of Apple Watch Magnetic Charger is 2.5W.







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- The maximum output power of the primary coil of AirPods Charger is 5W.
- 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
  - The transfer system including a charging system with only single primary coils is to detect and allow only between individual pairs of coils.
- 4) Client device is inserted in or placed directly in contact with the transmitter
  - Client device is placed directly in contact with the transmitter.
- 5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion)
  - The EUT is a Mobile Power Pack with Wireless Charger
- 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.
- Conducted the measurement with the required distance and the test results please refer to the section 2.4.2



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2.4.2. Environmental evaluation and exposure limit according to FCC CFR 47 part 1 1.1307(b), 1.1310

Temperature:	23.8°C	Relative Humidity:	54%
Pressure:	1012 hPa	Test Voltage:	AC 120V, 60Hz for adapter

#### Apple Watch Magnetic Charger:

E-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT

100		100		577	1	400	70×	3.0
Potton	Frequency	Test	Test	Test	Test	Test	Reference	Limits
Battery	Range	Position	Position	Position	Position	Position	Limit	Test
power	(KHz)	k A anb	otel B M	C	Dek	ATE OF EN	(V/m)	(V/m)
lek Yup,	Plen Muss	hotek p	nbotek	Aupor	a nbotek	Anbore	W PUD	ek A
1%	110.1~205	0.34	0.37	0.25	0.43	0.94	307	614
nbotek	Anbore	Anna	Anbotek	Anbo,	rek no	potek	inpose, by	hotek
Anbotek		Annabotel	Anbot	Sk Aup,	otek h	Anbotek	Anbore	Annabotek
50%	110.1~205	1.59	1.38	1.26	1.32	1.56	307	614
ek anbe		Anu Anu	notek	Anbotek	Anbo	A. abote	Anbore	Y VUI
stek h	ibotek Ani	pore P	hotek	Anbotek	Aupo	k vup	otek Anbor	DI.
99%	110.1~205	2.25	2.12	2.11	2.27	2.03	307	614
Anboro		Anboten	Anbo	k Anbo	ick Pul	or b	abotek	Anboten
Anbo. ctek	Anbotek	Anbore	ok bus	otek Ar	botek	Aupo.	Modek	Anboren
Stand-by	110.1~205	0.48	0.30	0.74	0.45	0.55	307	614
Anbo Anbo		otek Ar	poter.	YUR POLEK	Anbotek	Anbo	tek whote	k Pu



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## H-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT

Battery power	Frequency Range (KHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Reference Limit (A/m)	Limits Test (A/m)
iek Ant	Otek Pupe	atek A.	nbotek	Anbore	Amb	Anbote	Aupon	lek by
1%	110.1~205	0.049	0.053	0.048	0.042	0.068	0.815	1.63
Anna	Anborek	Aupor	k 2000	iek Ant	Of P.	hotek	Anbotek	Aupor
50%	110.1~205	0.24	0.57	0.30	0.45	0.46	0.815	1.63
K Aup	botek An	potek P	'upote	Ansabotek	Anbotel	Y Pupo	rek Anbot	S.F.
99%	110.1~205	0.41	0.55	0.57	0.36	0.52	0.815	1.63
Auporen	Ann	Anbotel	Aupo.	rek pr	obotek	Anboren	Ann	Anbore
Stand-by	110.1~205	0.28	0.16	0.33	0.37	0.31	0.815	1.63



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#### AirPods Charger:

F-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT

Battery power	Frequency Range (KHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Reference Limit (V/m)	Limits Test (V/m)
· ek	abotek Ar	botok	inbo work	anbotek	Anboro	ek All	ootek Anbo	YOU
1%	110.1~205	0.35	0.34	0.21	0.47	0.98	307	614
	All	Anboten	Anbo	ek ant	otek A	10010	All abotek	
Aupo,	k abotek	Anbore	PLUD.	notek	upotek	Yupo,	by opotek	Anbore
50%	110.1~205	1.50	1.32	1.22	1.36	1.59	307	614
	Die Die	potek p	nboter	Anbabatek	Anbotek	Anbor	rek who	
potek p	upo, tek	aborek	Anbore	And	L Anboi	SK VUL	or by	potek
99%	110.1~205	2.23	2.18	2.15	2.20	2.04	307	614
	Anboro	Air.	Anbot	Sr. Aug	notek	Anbotek	Auport	
Anbotel	Anbore	ek "apo	Hek An	pore P	Wotek.	Anbotek	Vupo.	Pr.
Stand-by	110.1~205	0.42	0.31	0.76	0.47	0.58	307	614
	ipotek Ani	o, b	hotek	Anboren	VUD.	ek anb	otek Pupo,	



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#### H-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT

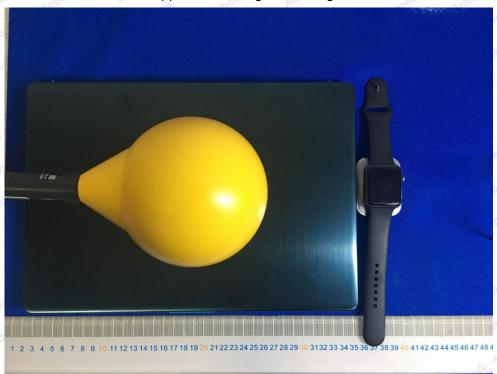
Battery power	Frequency Range (KHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Reference Limit (A/m)	Limits Test (A/m)
ek Ant	lotek Yupe	rek b	nbotek	Anbore	Ann	Anbote	Aupo.	rek P
1%	110.1~205	0.041	0.057	0.062	0.045	0.064	0.815	1.63
Lotek	Anbotek	Aupor	Air	Anbore	K And	work p	abotek Ar	por
Anna	Anborek	Aupo,	k 2000	lek Aug	Ole b	hotek	Anborek	Vupo.
50%	110.1~205	0.25	0.54	0.33	0.49	0.48	0.815	1.63
K Ano	otek Anbo	ek Aup	o, b	abotek	Aupoter-	Andhorek	Anbotek	An
Y View	hotek Ar	potek p	upo.	hotek	Anbore	Y Vun	rek Anbol	SIC
99%	110.1~205	0.38	0.53	0.59	0.34	0.50	0.815	1.63
	Anbachek	Anbotek	Anboy	ek vp.	otek Ar	poter A	no rotek	Anbotek
Anboren	And	Anbotel	Aupo	*8/r	botek	Anbores	Aug	Anboy
Stand-by	110.1~205	0.26	0.12	0.37	0.30	0.35	0.815	1.63
Anbo	yen Anbo	*ek	botek	Aupor	bu.	Anbotek	Vup.	K.



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## **APPENDIX I -- TEST SETUP PHOTOGRAPH**

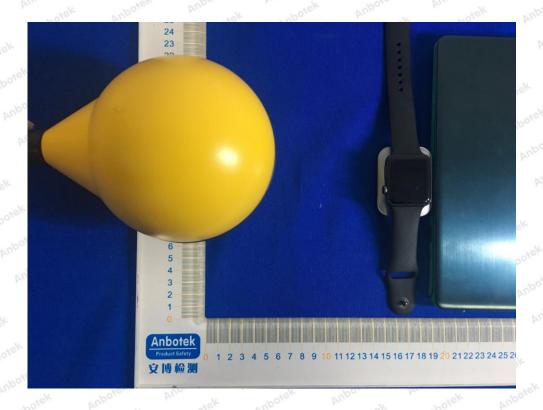
Photo of MPE Measurement Apple Watch Magnetic Charger







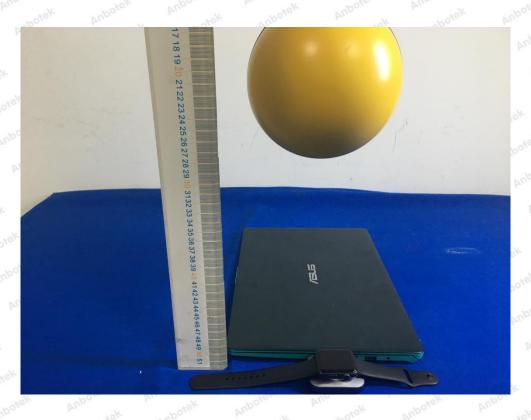
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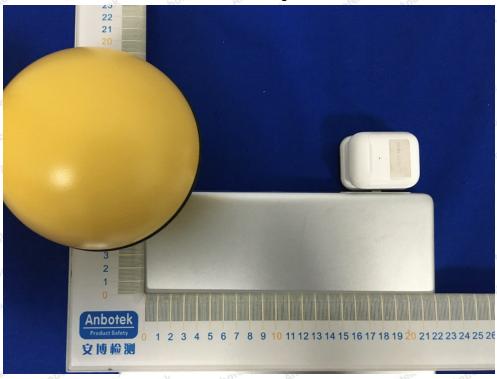




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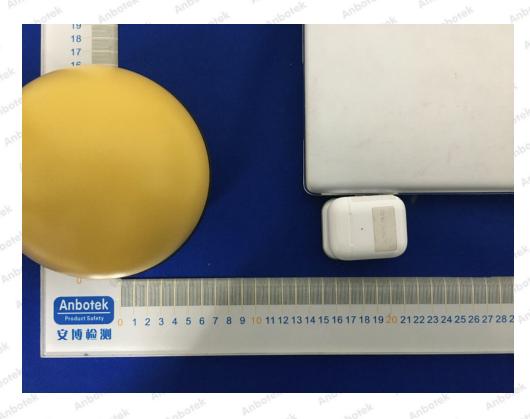
AirPods Charger





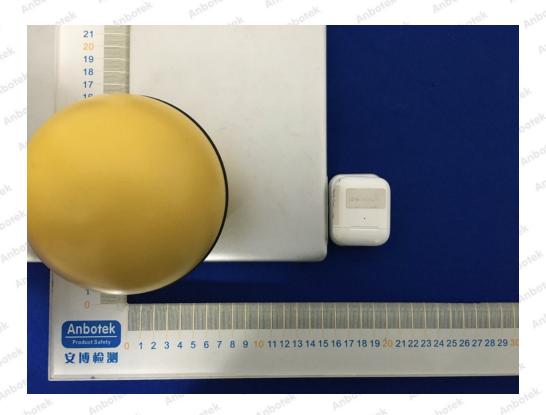
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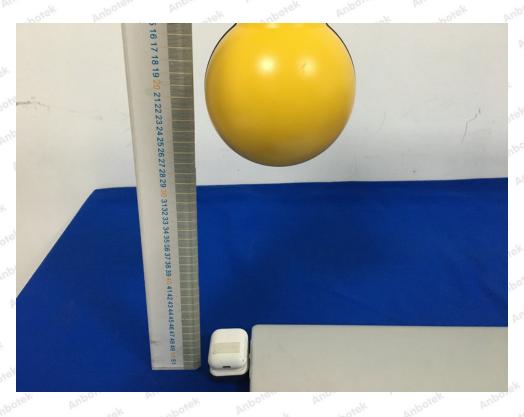






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----- End of Report -----

#### **Shenzhen Anbotek Compliance Laboratory Limited**