

# RF EXPOSURE REPORT

## FOR

<b>Applicant</b>	:	SOLAR BRIGHT INDUSTRIAL LIMITED
<b>Address</b>	:	FLAT/RM 4, 7F SHING YIP INDUSTRIAL BUILDING, 19-21 SHING YIP STREET, KWUN TONG, KL., HONG KONG
<b>Equipment under Test</b>	:	Studebaker Workstation Hi-Fi CD Clock Radio and Wireless Charging Station
<b>Model No.</b>	:	MET1520, SB5050, SB5050B, SB5050W, SB5050TE, SB5050RG, SB5050XXXXX(where XXXXX denote any printable characters in the ASCII Standard Character Table to represent variances in cosmetics or buyers), MD1520
<b>Trade Mark</b>	:	MET, Studebaker, MODERN
<b>FCC ID</b>	:	2AYB76965050
<b>Manufacturer</b>	:	SOLAR BRIGHT INDUSTRIAL LIMITED
<b>Address</b>	:	FLAT/RM 4, 7F SHING YIP INDUSTRIAL BUILDING, 19-21 SHING YIP STREET, KWUN TONG, KL., HONG KONG

**Issued By: Dongguan Dongdian Testing Service Co., Ltd.**

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# REPORT

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## Test Report Declare

<b>Applicant</b>	:	SOLAR BRIGHT INDUSTRIAL LIMITED
<b>Address</b>	:	FLAT/RM 4, 7F SHING YIP INDUSTRIAL BUILDING, 19-21 SHING YIP STREET, KWUN TONG, KL., HONG KONG
<b>Equipment under Test</b>	:	Studebaker Workstation Hi-Fi CD Clock Radio and Wireless Charging Station
<b>Model No.</b>	:	MET1520, SB5050, SB5050B, SB5050W, SB5050TE, SB5050RG, SB5050XXXXX(where XXXXX denote any printable characters in the ASCII Standard Character Table to represent variances in cosmetics or buyers), MD1520
<b>Trade Name</b>	:	MET, Studebaker, MODERN
<b>Manufacturer</b>	:	SOLAR BRIGHT INDUSTRIAL LIMITED
<b>Address</b>	:	FLAT/RM 4, 7F SHING YIP INDUSTRIAL BUILDING, 19-21 SHING YIP STREET, KWUN TONG, KL., HONG KONG

**Assess Standard Used:** FCC CFR 47 part1, 1.1307(b), 1.1310; KDB680106 DR03-44118

### We Declare:

The equipment described above is assessed by Dongguan Dongdian Testing Service Co., Ltd. and in the configuration assessed the equipment complied with the standards specified above. The assessed results are contained in this report and Dongguan Dongdian Testing Service Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these assess.

**After evaluation, our opinion is that the equipment In Accordance with above standard.**

<b>Report No.:</b>	DDT-R22061416-2E03		
<b>Date of Receipt:</b>	Jun. 15, 2022	<b>Date of Test:</b>	Jun. 15, 2022 ~ Aug. 15, 2022

**Prepared By:**

*Johnny Wang*

**Johnny Wang/Engineer**

**Approved By:**



**Damon Hu/EMC Manager**

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Dongguan Dongdian Testing Service Co., Ltd.

### Revision History

Rev.	Revisions	Issue Date	Revised By
---	Initial issue	Aug. 16, 2022	

## 1. General Information

### 1.1. Description of equipment

EUT* Name	: Studebaker Workstation Hi-Fi CD Clock Radio and Wireless Charging Station
Model Number	: MET1520, SB5050, SB5050B, SB5050W, SB5050TE, SB5050RG, SB5050XXXXX(where XXXXX denote any printable characters in the ASCII Standard Character Table to represent variances in cosmetics or buyers), MD1520
Difference of models	: Above models are identical in schematic and structure, only the name, colour and brand are different for all the models, therefore the test performed on the model MET1520.
EUT function description	: Please reference user manual of this device
Power Supply	: DC 12 V by external Adapter Clock backup batteries: DC 3V (AAA*2)
Wireless charging Operation frequency	: 110-205 kHz
Antenna Type	: Inductive loop coil antenna

Note: EUT is the abbreviation of equipment under test.

### 1.2. Assistant equipment used for test

Description of Accessories	Manufacturer	Model number	Serial No.	Other
Dummy Load	EESON	RX2S	N/A	N/A
Apple watch	Apple	SE	N/A	N/A

### 1.3. Assess laboratory

Dongguan Dongdian Testing Service Co., Ltd.

Add.: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808.

Tel.: +86-0769-38826678, <http://www.dgddt.com>, Email: ddt@dgddt.com.

CNAS Accreditation No. L6451; A2LA Accreditation Number: 3870.01

FCC Designation Number: CN1182, Test Firm Registration Number: 540522

Innovation, Science and Economic Development Canada Site Registration Number: 10288A

Conformity Assessment Body identifier: CN0048

VCCI facility registration number: C-20087, T-20088, R-20123, G-20118

### 1.4. Measurement uncertainty

Test Item	Uncertainty
Uncertainty for H-Filed Strength	1.2 dB
Uncertainty for E-Filed Strength	1.2 dB

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

## 2. Equipment used during test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Isotropic EM Field Probe	Wavecontrol	WP400	19SN0986	Apr. 07, 2022	1 Year



### 3. Method of Measurement

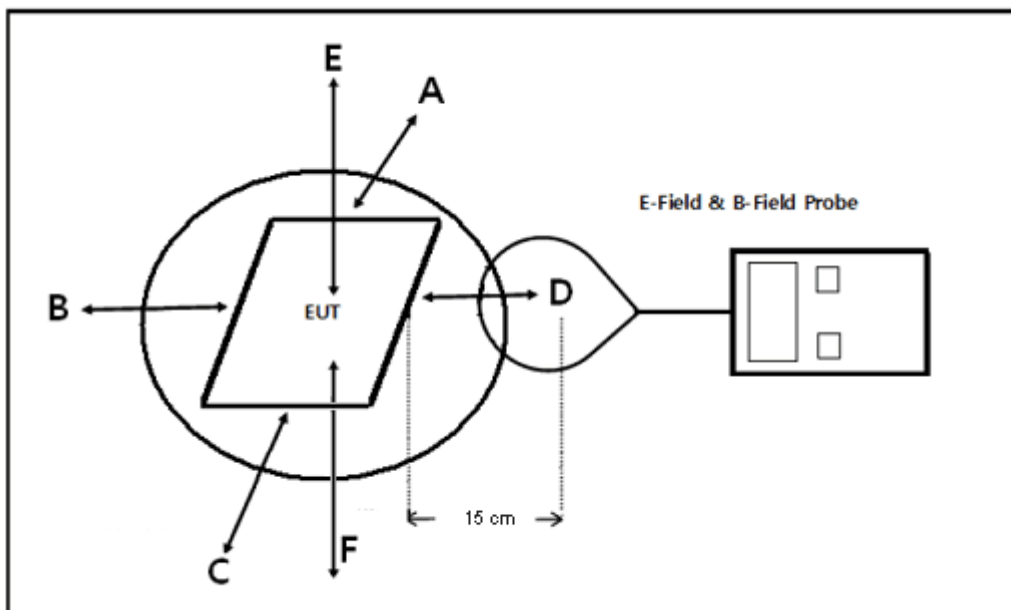
#### 3.1. Applicable standard

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

According to §1.1310 and §2.1091 RF exposure is calculated.

According KDB 680106 D01: RF Exposure Wireless Charging Apps v03r01.

#### 3.2. Block diagram of test setup



Note: Due to installation limitations no tests from the underside of the charging device (Test Position F) are required.

#### 3.3. Test procedure

- The RF exposure test was performed in shielded chamber.
- The measurement probe was placed at test distance (15 cm) which is between the edge of the charger and the geometric centre of probe.
- The measurement probe used to search of highest strength.
- The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.
- The EUT were measured according to the dictates of KDB680106 DR03-44118.

### 3.4. Equipment approval considerations:

The EUT does comply with section 5 b) of KDB 680106 D01 RF Exposure Wireless Charging Apps v03r01.

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

Yes, the device operates in the frequency range from 110-148kHz

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

Yes, the maximum output power of the primary coil is 15 W.

(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.

Yes, the transfer system includes one primary coils.

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

Yes. client device is placed directly in contact with the transmitter.

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

Yes.

(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.

Yes, the EUT H-field strengths levels are less than 50% of MPE limit.

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 <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposure</b>				
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
300-1,500			f/300	6
1,500-100,000			5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
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
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz \* = Plane-wave equivalent power density



### 3.5. E and H Field Strength

Test mode for wireless charger:

Dummy load: 5W, 7.5W, 10W and 15W load mode, All the multitudinous primary coils modes were tested; the data of the worst mode are described in the following table.

E-Filed Strength at 15 cm from the edges surrounding the EUT and 20 cm above the top surface of the EUT (V/m)

Wireless charger 1:

Test Position	Probe Measure Result(V/m)			Limits Test (V/m)
	5W	10W	15W	
A	0.8995	1.0640	1.4137	614
B	0.4542	0.6961	0.9151	614
C	1.2700	1.4448	1.7097	614
D	2.4878	2.6595	3.1628	614
E	2.9130	3.1210	3.5557	614

Wireless charger 2:

Test Position	Probe Measure Result(V/m)			Limits Test (V/m)
	5W	10W	15W	
A	0.9883	1.1919	1.5691	614
B	0.9690	1.1850	1.4962	614
C	1.3892	1.6765	2.1696	614
D	0.4854	0.5694	0.7141	614
E	3.3150	3.6633	3.9568	614

Wireless charger 3:

Test Position	Probe Measure Result(V/m)			Limits Test (V/m)
	5W	10W	15W	
A	0.7075	0.7610	0.9503	614
B	1.1357	1.3021	1.4535	614
C	0.7773	0.8204	1.0774	614
D	0.4344	0.5147	0.6638	614
E	2.1924	2.2352	2.4277	614

Wireless charger 1+2+3:

Test Position	Probe Measure Result(V/m)			Limits Test (V/m)
	5W	10W	15W	
A	1.4794	1.5896	2.0236	614
B	1.9780	2.1500	2.6234	614
C	1.2337	2.5144	3.0368	614
D	1.7510	2.0678	2.4236	614
E	3.9458	4.1046	4.6133	614

H-Filed Strength at 15 cm from the edges surrounding the EUT and 20 cm above the top surface of the EUT (A/m)

Wireless charger 1:

Test Position	Probe Measure Result(A/m)			Limits Test (A/m)
	5W	10W	15W	
A	0.0598	0.0742	0.1000	1.63
B	0.0570	0.0847	0.0784	1.63
C	0.1209	0.1039	0.1518	1.63
D	0.1056	0.1697	0.1672	1.63
E	0.0936	0.0957	0.1175	1.63

Wireless charger 2:

Test Position	Probe Measure Result(A/m)			Limits Test (A/m)
	5W	10W	15W	
A	0.0666	0.1606	0.1114	1.63
B	0.1657	0.0738	0.3156	1.63
C	0.1074	0.1635	0.1508	1.63
D	0.0703	0.0698	0.0973	1.63
E	0.1614	0.1948	0.2974	1.63

Wireless charger 3:

Test Position	Probe Measure Result(A/m)			Limits Test (A/m)
	5W	10W	15W	
A	0.0632	0.1024	0.1000	1.63
B	0.1000	0.0983	0.0722	1.63
C	0.1000	0.1024	0.1000	1.63
D	0.1172	0.0806	0.0806	1.63
E	0.0662	0.0705	0.0799	1.63

Wireless charger 1+2+3:

Test Position	Probe Measure Result(A/m)			Limits Test (A/m)
	5W	10W	15W	
A	0.1232	0.0792	0.1056	1.63
B	0.1344	0.0959	0.0995	1.63
C	0.1485	0.1634	0.2133	1.63
D	0.1046	0.1056	0.2133	1.63
E	0.1169	0.2151	0.2268	1.63