

RF Exposure Evaluation Report

Product : Wireless Car Charger
Trade mark : UGREEN
Model/Type reference : W778
Serial Number : N/A
Report Number : EED32S80192201
FCC ID : 2AQI5-W778
Date of Issue : Mar. 24, 2026
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
47 CFR Part 2.1091(mobile devices)
47 CFR Part 2.1093(portable devices)
KDB 447498 D04 Interim General RF Exposure Guidance v01
KDB 680106 D01 Wireless Power Transfer v04
Test result : PASS

Prepared for:

Ugreen Group Limited

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ShenZhen, China**

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Check No.: 5921230126



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2 General Information

2.1 Client Information

Applicant:	Ugreen Group Limited
Address of Applicant:	Ugreen Building, Longcheng Industrial Park, Longguanxi Road, Longhua, ShenZhen, China
Manufacturer:	Ugreen Group Limited
Address of Manufacturer:	Ugreen Building, Longcheng Industrial Park, Longguanxi Road, Longhua, ShenZhen, China

2.2 Product Specification subjective to this standard

Sample Type:	☐ Mobile ☐ Portable ☒ Fix Location			
Frequency Range:	111-148.5kHz & 360kHz			
Modulation Type:	ASK			
Antenna Type:	Coil antenna			
Power Supply:	Input: DC 9V/3A, DC 12V/3A, DC 15V/3A Output: 25W (Max)			
Test Voltage:	DC 15V			
Sample Received Date:	Jan. 23, 2026			
Sample tested Date:	Jan. 23, 2026 to Feb. 28, 2026			
Remark:				
- P/N code in the below table, for marketing purpose, will be marked on the marking plate.				
75250	75250P	75250X	75250A	75250B
75250U	75250JP	75250ZD	75250T	/

Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.

2.3 Test Environment and Mode

Operating Environment:	
Temperature:	22~25.0 °C
Humidity:	50~55 % RH
Atmospheric Pressure:	1010mbar
Test mode:Transmitting mode	
Mode a:	Wireless charging mode(Unloaded)(Connect to adapter)
Mode b:	Wireless charging mode(Loaded 5W)(Connect to adapter)
Mode c:	Wireless charging mode(Loaded 7.5W)(Connect to adapter)
Mode d:	Wireless charging mode(Loaded 10W)(Connect to adapter)
Mode e:	Wireless charging mode(Loaded 15W)(Connect to adapter)
Mode f:	Wireless charging mode(Loaded 25W)(Connect to adapter)
Note:	
1.Wireless output:5W,7.5W,15W,25W(maximum wireless output 25W during charging)	

2.4 Description of Support Units

The EUT has been tested with associated equipment below.

1) Support equipment

Description	Manufacturer	Model No.	Certification	Supplied by
Intelligent wireless charging full function test kit	YBZ	/	FCC SDOC	Client

2.5 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

3 Equipment List

RF test system					
Equipment	Manufacturer	Mode No.	Serial Number	Cal. Date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)
3M Chamber & Accessory Equipment	TDK	SAC-3	---	01-13-2024	01-12-2027
Electric and Magnetic field analyzer	Narda	EHP-200AC	180ZX11020	09-17-2025	09-16-2026
PC-1	HP	ZHAN200	--	--	--
Test software	Narda S.T.S./PMM	EHP200-TS	--	--	--

4 Equipment approval considerations

The EUT does comply with section 5.2 of KDB 680106 D01 Wireless Power Transfer v04.

Requirements of KDB 680106 D01	Yes/No	Description
The power transfer frequency is below 1 MHz.	Yes	The device operate in the frequency range 111-148.5kHz & 360kHz
The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts.	No	The maximum output power of the primary coil is 25W.
A client device providing the maximum permitted load is placed in physical contact with the transmitter (i.e., the surfaces of the transmitter and client device enclosures need to be in physical contact)	Yes	Yes, the surfaces of the transmitter and client device enclosures need to be in physical contact.
Only § 2.1091-Mobile exposure conditions apply (i.e., this provision does not cover § 2.1093-Portable exposure conditions).	Yes	Yes. The client device is placed directly in contact with the transmitter.
The E-field and H-field strengths, at and beyond 20 cm surrounding the device surface, are demonstrated to be less than 50% of the applicable MPE limit, per KDB 447498, Table 1. These measurements shall be taken along the principal axes of the device, with one axis oriented along the direction of the estimated maximum field strength, and for three points per axis or until a 1/d (inverse distance from the emitter structure) field strength decay is observed. Symmetry considerations may be used for test reduction purposes. The device shall be operated in documented worst-case compliance scenarios (i.e., the ones that lead to the maximum field components), and while all the radiating structures (e.g., coils or antennas) that by design can simultaneously transmit are energized at their nominal maximum power.	Yes	Yes, the EUT H-field strengths levels are less than 50% of MPE limit.
For systems with more than one radiating structure, the conditions specified in (5) must be met when the system is fully loaded (i.e., clients absorbing maximum power available), and with all the radiating structures operating at maximum power at the same time, as per design conditions. If the design allows one or more radiating structures to be powered at a higher level while other radiating structures are not powered, then those cases must be tested as well. For instance, a device may use three RF coils powered at 5 W, or one coil powered at 15 W: in this case, both scenarios shall be tested.	Yes	Only one radiated Coil.

5 SAR Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Limits

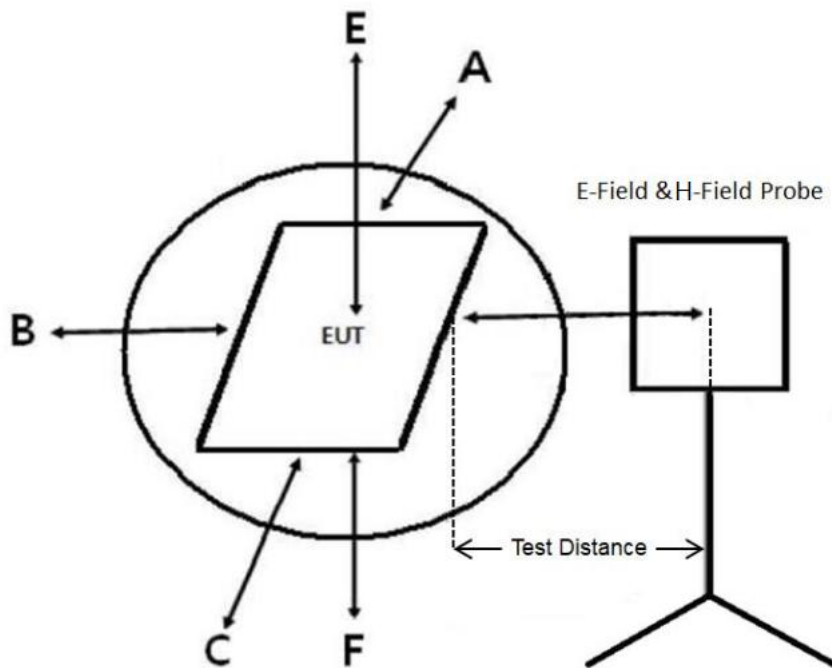
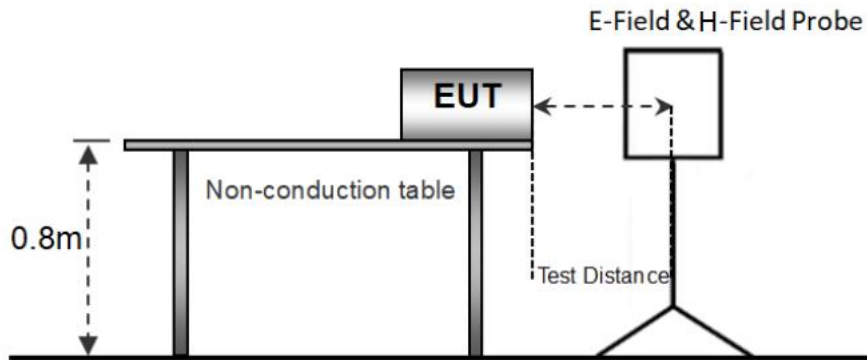
§ 1.1310 The criteria listed in table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency(RF) radiation as specified in § 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of § 2.1093 of this chapter.

Table 1 to § 1.1310(e)(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)
(i) Limits for Occupational/Controlled Exposure				
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
300–1,500			f/300	<6
1,500–100,000			5	<6
(ii) 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
300–1,500			f/1500	<30
1,500–100,000			1.0	<30

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

5.1.2 Test Procedure

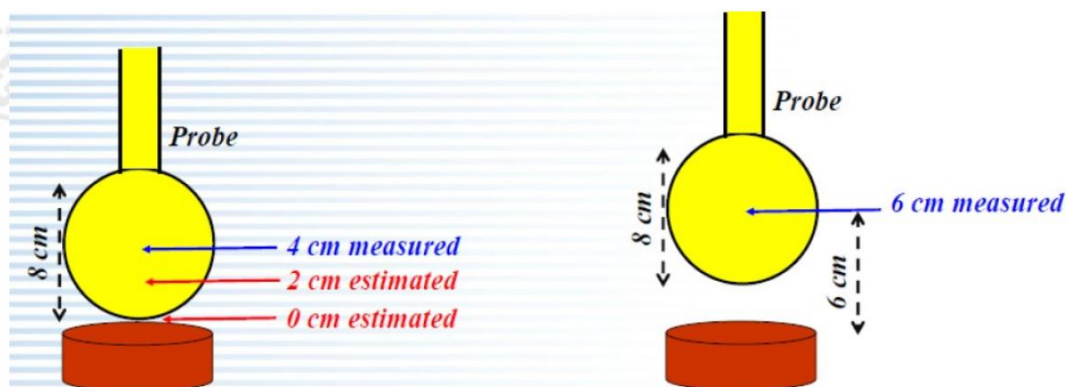


For mobile exposure conditions:

- The RF exposure test was performed in anechoic chamber.
- Perform E-field and H-field measurements for each edge/top surface of the host/client pair at every 2cm, starting from as close as possible out to 20cm.
- The highest emission level was recorded and compared with limit.
- The EUT was measured according to the dictates of KDB 680106 D01 Wireless Power Transfer v04.

Note:

- (1)The portable test modes have covered the considerations of the mobile test, only record the test data of the portable conditions in this report.
- (2)2cm to 20cm is the actual test value, and 0cm is the estimated value.
- (3)Perform H-field/E-field measurements are taken along all three axes the device from 0cm>20cm in 2cm minimum increment for each edge surface of the host/client pair. If the center of the probe sensing element is more than 5mm from the probe outer edge, the field strengths need to be estimated for the positions that are not reachable.



Example of probe measurements in points close to the device surface: estimates compared with measurements at 4 and 6 cm provide validation

- (4)According to Calibration information and specification about EHP-200AC, The Probe EHP-200AC's Sensitive elements center are 8mm below the external surface, and the dimensions is 92x92x109mm, so the actual field strengths need to be estimated for the positions that are not reachable. The Extrapolated Value Calculation Method please below). And the result of test distance 2cm to 20cm was measured value.



Probe	Length	Width	Height
	109mm	92mm	92mm

Note: EUT is a loop/coil emitting structure, so E-field not required.
Just recorded the H-field value

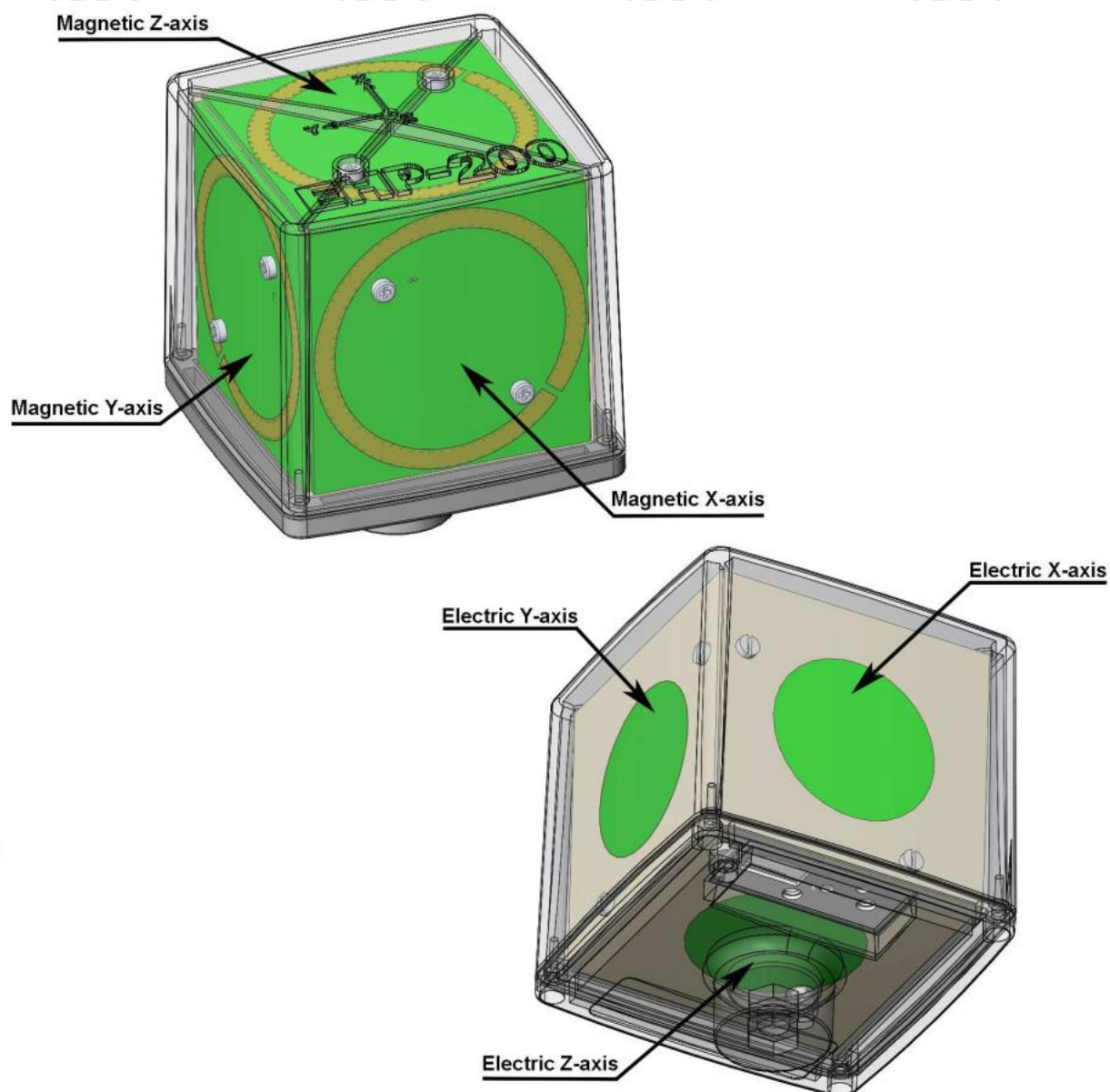
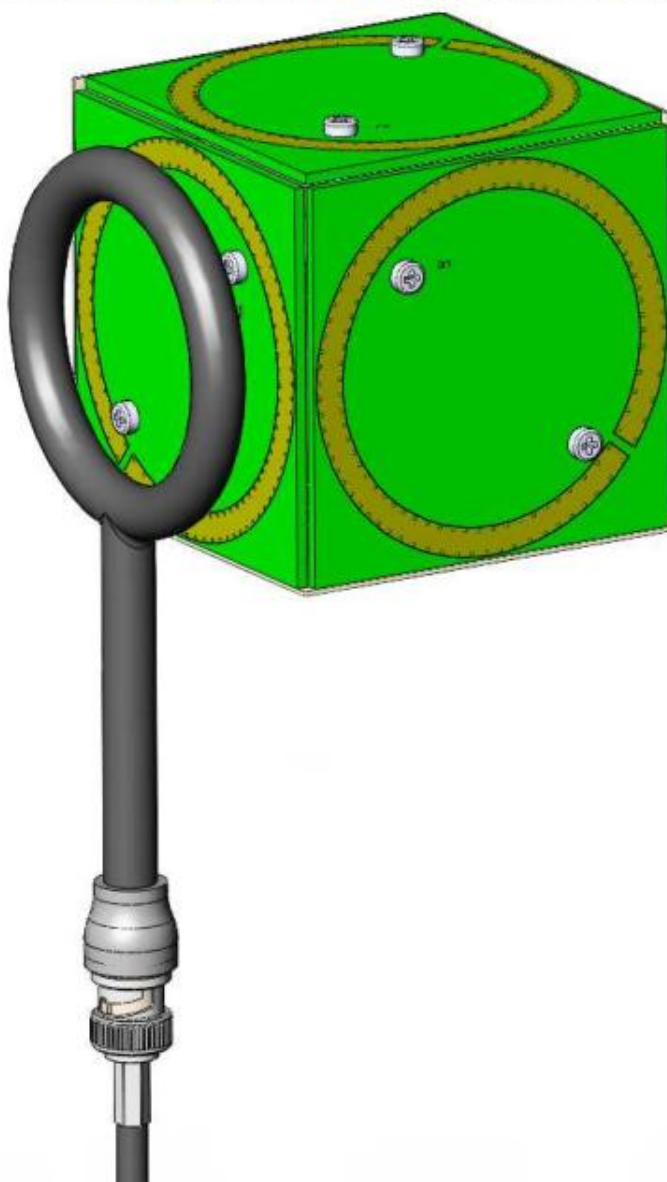


Fig. 1-4 EHP-200A/EHP-200AC axes

The sensitive elements are located approximately 8 mm below the external surface

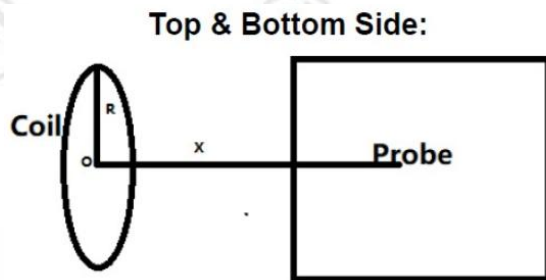
As depicted above, the three magnetic sensor are magnetic loops positioned orthogonal each other and the electric sensor includes three orthogonal parallel plates capacitors installed on the opposite side of the magnetic ones.

The geometric structure of the Narda probes, with sensors placed on the peripheral faces of the cube, shows the same behavior as one with the sensors accumulated in the center, when measuring far fields. Moreover, this provides the opportunity to evaluate also very nearby fields, albeit with all the limitations that this entails, knowing exactly where the single sensor is, and allowing to minimize the contribution of the others.



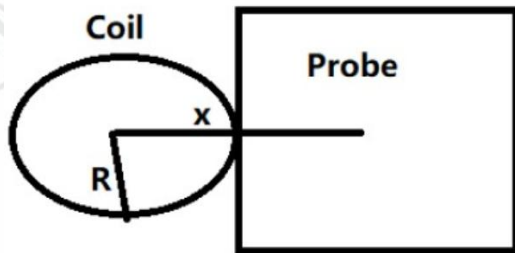
Estimated method for portable RF Exposure condition:

We use Biot-Savart formula theory to estimate the strength of the magnetic field that the measuring instrument can not measure. According to Biot-Savart formula:



$$B = \frac{\mu_0 * I * N * R^2}{2 * (R^2 + x^2)^{3/2}}$$

Front, left, right & rear Side:



$$B = \frac{\mu_0 * I * N}{2 * x}$$

B: means H-field value.

μ_0 : is space permeability; $\mu_0 = 4 \pi * 10^{-7}$:

I: A current element passing through a coil:

R: means the Radius of coil (According to provided Antenna specification: We can get the minimum $R = 43.4/2\text{mm} = 0.0217\text{m}$);

Test Distance: The distance from the sensing element of the probe to the edge of the device surface

x: means the center of the coil to the sensing elements of the probe. (For top & bottom side: $x = \text{test distance}$. For other side: $x = \text{test distance} + R$)

N: Number of turns, according to providing "Antenna specification" files: $N = 11$

(5) For validation purposes: If the value to show a 30% agreement between the mode and the (E-field and/or H-field) probe measurements for the two closest points to the device surface, and with 2cm increments. Then this extrapolation method is reasonable.

Note:

The percent ratio of agreement is the difference between the estimated and measured values divided by the average of the estimated and measured values.

5.1.3 Test Result

Magnetic Field emissions							
Test Distance (cm)	Top	Left	Right	Front	Rear	Bottom	Conclusion
	Unit: Agreement(%); H-field(A/m)						
Agreement-2cm	14.28	12.50	7.04	9.68	22.66	10.53	Compliance (Within 30%)
2cm(Estimated)	0.3806	0.1736	0.1736	0.1736	0.1736	0.0818	
2cm(Measured)	0.3299	0.1532	0.1863	0.1576	0.2180	0.0736	

Magnetic Field emissions							
Test Distance (cm)	Top	Left	Right	Front	Rear	Bottom	Conclusion
	Unit: Agreement(%); H-field(A/m)						
Agreement-4cm	11.44	28.34	15.09	20.43	27.19	24.53	Compliance (Within 30%)
4cm(Estimated)	0.2249	0.1320	0.1320	0.1320	0.1320	0.0712	
4cm(Measured)	0.2006	0.0992	0.1535	0.1075	0.1735	0.0911	

For portable exposure conditions:

Mode	Measuring distance (cm)	Measured H-field Strength Values (A/m)						FCC H-field Strength Limit (A/m)	Max. Percentage (%)
		Test Position A: Top	Test Position B: Left	Test Position C: Right	Test Position D: Front	Test Position E: Rear	Test Position F: Bottom		
f	0	0.3806	0.3458	0.3210	0.5030	0.3941	0.1066	1.63	30.86
f	2	0.3299	0.1532	0.1863	0.1576	0.2180	0.0736	1.63	20.24
f	4	0.2006	0.0992	0.1535	0.1075	0.1735	0.0911	1.63	12.31
f	6	0.1310	0.0502	0.0933	0.0369	0.0359	0.0389	1.63	8.04
f	8	0.0854	0.0452	0.0538	0.0245	0.0227	0.0283	1.63	5.24
f	10	0.0578	0.0300	0.0329	0.0205	0.0242	0.0217	1.63	3.55
f	12	0.0409	0.0207	0.0238	0.0156	0.0153	0.0176	1.63	2.51
f	14	0.0298	0.0147	0.0167	0.0117	0.0119	0.0134	1.63	1.83
f	16	0.0219	0.0112	0.0123	0.0105	0.0097	0.0114	1.63	1.34
f	18	0.0177	0.0096	0.0103	0.0098	0.0081	0.0102	1.63	1.09
f	20	0.0154	0.0083	0.0082	0.0074	0.0069	0.0089	1.63	0.94

Note: Pretest all the modes, and the report will only display the data of the worst case mode.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32S80192201 for EUT external and internal photos.

Statement

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. The result(s) shown in this report refer(s) only to the sample(s) tested;
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