

CYGNETT PTY LTD

TEST REPORT

SCOPE OF WORK

SAR Assessment– CY3912PBCHE

REPORT NUMBER

211102007SZN-003

ISSUE DATE

06 December 2021

[REVISED DATE]

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PAGES

9

DOCUMENT CONTROL NUMBER

RF Exposure

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Test Report

Applicant : CYGNETT PTY LTD
Level 1, 858 Lorimer Street, Port Melbourne VIC 3207
Australia

Sample Description

Product : Exo 3 In 1
Model No. : CY3912PBCHE
Brand Name : Cygnett
Electrical Rating : Wall Charger: Input: AC 100-240V, 50-60Hz, 0.5A Max, USB-A Output: 5.0V=3.0A(15.0W Max), USB-C Output:5.0V=3.0A(15.0W Max), Wireless Output:5.0W Max, Total Output: 15.0W Max, Power Bank: Battery Capacity: 10000mAh/37Wh, USB-C Input: 5.0V=3.0A(15.0W), 9.0V=2.0A(18.0W), USB-C Output:5.0V=3.0A(15.0W), 9.0V=2.22A(20.0W), 12.0V=1.67A(20.0W), USB-A Output: 5.0V=3.0A(15.0W), 9.0V=2.0A(18.0W), 12.0V=1.5A(18.0W), Wireless Output: 5.0W/7.5W/10.0W/15.0W Max, Total Output: 20.0W Max

Date Received : 02 November 2021
Date Test Conducted : 02 November 2021 to 29 November 2021

Test Requested : Test for compliance with CFR 47 part 1
Test Method : Environmental evaluation and exposure limit according to FCC CFR 47 part 1, 1.1307(c) and (d), 1.1310, KDB 680106 D01

Test Result : Pass
Conclusion : When determining of test conclusion, measurement uncertainty of tests have been considered.

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Approved By:

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Date: 06 December 2021

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Intertek Testing Services Shenzhen Ltd. Longhua Branch

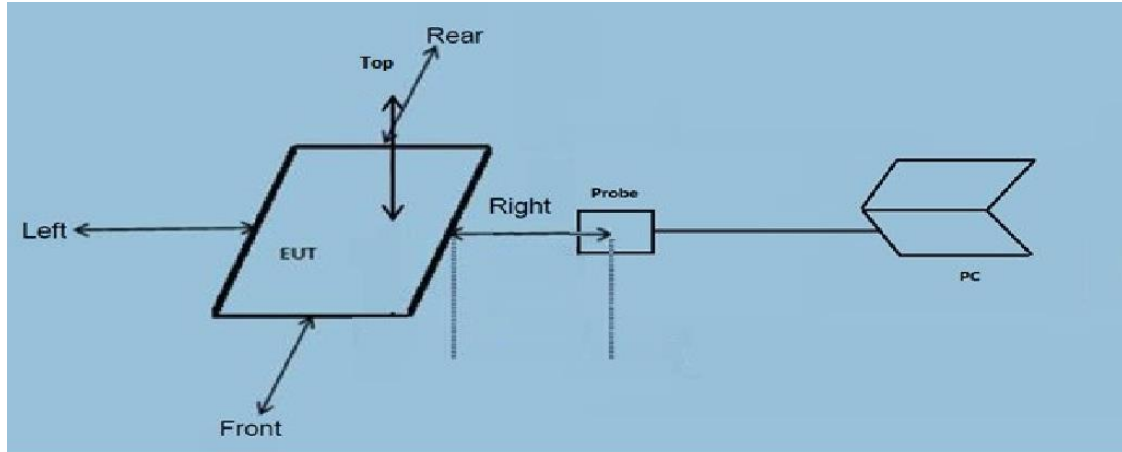
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Test Report

Test Setup Configuration



Note

- The RF exposure test is performed in the shield room.
- The test distance is at or beyond 0, 2, 4, 6, 8, 10, 15 cm surrounding the device, and 0, 2, 4, 6, 8, 10, 20 cm away from the surface from all coils.

Test Equipment List

Name of instrument	Model	Manufacturer	Cal. Date	Due Date
Electric and Magnetic Field Analyzer	EHP-50F	Narda	2021-07-20	2022-07-20

Test Mode

Pertest mode	Description
Mode 1	Standby mode
Mode 2	Mobile phone is charging at 1% battery power
Mode 3	Mobile phone is charging at 50% battery power
Mode 4	Mobile phone is charging at 99% battery power

The EUT was powered by an adapter with 120V/60Hz or DC3.7V input during the test. The test system was pre-scanning tested based on the consideration of following EUT operation mode. Only the worst-case data(DC 3.7V condition) was shown in this report.

Support Equipment List and Description

This product was tested in the following configuration:

Description	Manufacturer	Detail
mobile phone (Provided by Intertek)	Samsung	S7
Cement resistor (Provided by Intertek)	N/A	1.6 Ω *2; 4.5 Ω ; 8 Ω
USB Cable*2 (Provided by Intertek)	N/A	unshielded, 20cm

Reference Limit:

Environmental evaluation and exposure limit according to FCC CFR 47 part 1, 1.1307(c) and (d), 1.1310

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation.

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3 – 1.34	614	1.63	(100) *	30

Note: * = Plane wave equivalent power density

Model: CY3912PBCHE

Test Result: Worst Case Operating Mode: Mode 2

H-Field Strength at 0 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (A/m)	Probe Position Rear (A/m)	Probe Position Left (A/m)	Probe Position Right (A/m)	Probe Position Top (A/m)	Probe Position Bottom (A/m)	Limits (A/m)
0.112-0.205	1% Battery Level	1.2108	1.2156	1.2203	1.2213	1.2221	1.1807	1.63
0.112-0.205	50% Battery Level	1.1987	1.1907	1.1978	1.1937	1.1993	1.1876	1.63
0.112-0.205	99% Battery Level	0.9563	0.9456	0.8896	0.7967	0.9997	0.9787	1.63
0.112-0.205	Stand-by	0.7374	0.7546	0.7564	0.7839	0.8887	0.6658	1.63

E-Field Strength at 0 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (V/m)	Probe Position Rear (V/m)	Probe Position Left (V/m)	Probe Position Right (V/m)	Probe Position Top (V/m)	Probe Position Bottom (V/m)	Limits (V/m)
0.112-0.205	1% Battery Level	1.4460	1.4563	1.4478	1.4483	1.5109	1.3274	614
0.112-0.205	50% Battery Level	1.4297	1.4493	1.4382	1.4409	1.5083	1.3329	614
0.112-0.205	99% Battery Level	1.2349	1.2981	1.2471	1.2879	1.3294	1.1932	614
0.112-0.205	Stand-by	0.8673	0.9038	0.8739	0.9748	0.9432	0.9874	614

H-Field Strength at 2 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (A/m)	Probe Position Rear (A/m)	Probe Position Left (A/m)	Probe Position Right (A/m)	Probe Position Top (A/m)	Probe Position Bottom (A/m)	Limits (A/m)
0.112-0.205	1% Battery Level	1.2084	1.2126	1.2248	1.2149	1.2187	1.1739	1.63
0.112-0.205	50% Battery Level	1.1939	1.1939	1.1917	1.1976	1.1897	1.1673	1.63
0.112-0.205	99% Battery Level	0.6807	0.6910	0.6903	0.6989	0.7949	0.6748	1.63
0.112-0.205	Stand-by	0.6749	0.6704	0.6492	0.6873	0.7807	0.6702	1.63

E-Field Strength at 2 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (V/m)	Probe Position Rear (V/m)	Probe Position Left (V/m)	Probe Position Right (V/m)	Probe Position Top (V/m)	Probe Position Bottom (V/m)	Limits (V/m)
0.112-0.205	1% Battery Level	1.4239	1.4482	1.4319	1.4318	1.5018	1.3274	614
0.112-0.205	50% Battery Level	1.4103	1.4193	1.4093	1.4293	1.4823	1.3031	614
0.112-0.205	99% Battery Level	1.2290	1.2783	1.2291	1.2673	1.3813	1.1739	614
0.112-0.205	Stand-by	0.8472	0.8743	0.8673	0.9527	0.9138	0.9681	614

H-Field Strength at 4 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (A/m)	Probe Position Rear (A/m)	Probe Position Left (A/m)	Probe Position Right (A/m)	Probe Position Top (A/m)	Probe Position Bottom (A/m)	Limits (A/m)
0.112-0.205	1% Battery Level	1.0391	1.0293	1.0973	1.0846	1.0998	1.0382	1.63
0.112-0.205	50% Battery Level	1.0293	1.0281	1.0783	1.0657	1.0903	1.0213	1.63
0.112-0.205	99% Battery Level	0.4829	0.4904	0.4843	0.4773	0.5883	0.3683	1.63
0.112-0.205	Stand-by	0.4803	0.4810	0.4638	0.4739	0.5793	0.3665	1.63

E-Field Strength at 4 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (V/m)	Probe Position Rear (V/m)	Probe Position Left (V/m)	Probe Position Right (V/m)	Probe Position Top (V/m)	Probe Position Bottom (V/m)	Limits (V/m)
0.112-0.205	1% Battery Level	1.2831	1.2013	1.2764	1.2893	1.3202	1.0932	614
0.112-0.205	50% Battery Level	1.2193	1.2049	1.2394	1.2274	1.2940	1.0837	614
0.112-0.205	99% Battery Level	1.0129	1.1039	1.0484	1.0092	1.1209	1.0382	614
0.112-0.205	Stand-by	0.8732	0.9032	0.8574	0.9193	0.8893	0.9193	614

H-Field Strength at 6 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (A/m)	Probe Position Rear (A/m)	Probe Position Left (A/m)	Probe Position Right (A/m)	Probe Position Top (A/m)	Probe Position Bottom (A/m)	Limits (A/m)
0.112-0.205	1% Battery Level	0.9654	0.8784	0.8533	0.8732	1.0384	0.4823	1.63
0.112-0.205	50% Battery Level	0.7833	0.7943	0.7374	0.7657	0.8974	0.4293	1.63
0.112-0.205	99% Battery Level	0.1804	0.1764	0.1454	0.1434	0.2475	0.0930	1.63
0.112-0.205	Stand-by	0.1799	0.1776	0.1645	0.1398	0.2435	0.0873	1.63

E-Field Strength at 6 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (V/m)	Probe Position Rear (V/m)	Probe Position Left (V/m)	Probe Position Right (V/m)	Probe Position Top (V/m)	Probe Position Bottom (V/m)	Limits (V/m)
0.112-0.205	1% Battery Level	0.7844	0.8044	0.8393	0.7536	0.8642	0.9832	614
0.112-0.205	50% Battery Level	0.7139	0.8013	0.8030	0.7382	0.8392	0.7783	614
0.112-0.205	99% Battery Level	0.7053	0.7483	0.7483	0.6801	0.8043	0.7482	614
0.112-0.205	Stand-by	0.7083	0.7940	0.7394	0.6832	0.7949	0.7032	614

H-Field Strength at 8 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (A/m)	Probe Position Rear (A/m)	Probe Position Left (A/m)	Probe Position Right (A/m)	Probe Position Top (A/m)	Probe Position Bottom (A/m)	Limits (A/m)
0.112-0.205	1% Battery Level	0.3403	0.3892	0.4982	0.3029	0.4382	0.1033	1.63
0.112-0.205	50% Battery Level	0.3982	0.4102	0.3827	0.2839	0.3024	0.1029	1.63
0.112-0.205	99% Battery Level	0.1039	0.0998	0.1033	0.0949	0.0849	0.0739	1.63
0.112-0.205	Stand-by	0.0983	0.0782	0.0688	0.0783	0.0774	0.0697	1.63

E-Field Strength at 8 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (V/m)	Probe Position Rear (V/m)	Probe Position Left (V/m)	Probe Position Right (V/m)	Probe Position Top (V/m)	Probe Position Bottom (V/m)	Limits (V/m)
0.112-0.205	1% Battery Level	0.7645	0.7948	0.8193	0.7738	0.8532	0.7522	614
0.112-0.205	50% Battery Level	0.7290	0.7783	0.7984	0.7303	0.8049	0.7403	614
0.112-0.205	99% Battery Level	0.7203	0.7230	0.7394	0.6372	0.7632	0.7304	614
0.112-0.205	Stand-by	0.6983	0.7038	0.7103	0.7039	0.7384	0.7193	614

H-Field Strength at 10 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (A/m)	Probe Position Rear (A/m)	Probe Position Left (A/m)	Probe Position Right (A/m)	Probe Position Top (A/m)	Probe Position Bottom (A/m)	Limits (A/m)
0.112-0.205	1% Battery Level	0.0537	0.0773	0.0739	0.0476	0.0719	0.0423	1.63
0.112-0.205	50% Battery Level	0.0523	0.0694	0.0718	0.0457	0.0699	0.0398	1.63
0.112-0.205	99% Battery Level	0.0302	0.0605	0.0709	0.0412	0.0612	0.0354	1.63
0.112-0.205	Stand-by	0.0233	0.0784	0.0632	0.0383	0.0583	0.0333	1.63

E-Field Strength at 10 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (V/m)	Probe Position Rear (V/m)	Probe Position Left (V/m)	Probe Position Right (V/m)	Probe Position Top (V/m)	Probe Position Bottom (V/m)	Limits (V/m)
0.112-0.205	1% Battery Level	0.7203	0.7334	0.7201	0.7048	0.7735	0.5835	614
0.112-0.205	50% Battery Level	0.6902	0.7049	0.6999	0.7038	0.7593	0.5587	614
0.112-0.205	99% Battery Level	0.6833	0.7003	0.6983	0.6873	0.6023	0.5938	614
0.112-0.205	Stand-by	0.6938	0.6831	0.6684	0.6523	0.6485	0.4938	614

H-Field Strength at 15 cm surrounding the EUT and 20cm away from the surface from the coil of the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (A/m)	Probe Position Rear (A/m)	Probe Position Left (A/m)	Probe Position Right (A/m)	Probe Position Top (A/m)	Limits (A/m)
0.112-0.205	1% Battery Level	0.0314	0.0715	0.0676	0.0476	0.0735	1.63
0.112-0.205	50% Battery Level	0.0376	0.0708	0.0632	0.0457	0.0712	1.63
0.112-0.205	99% Battery Level	0.0325	0.0705	0.0612	0.0412	0.0705	1.63
0.112-0.205	Stand-by	0.0294	0.0695	0.0600	0.0425	0.0701	1.63

E-Field Strength at 15 cm surrounding the EUT and 20cm away from the surface from the coil of the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (V/m)	Probe Position Rear (V/m)	Probe Position Left (V/m)	Probe Position Right (V/m)	Probe Position Top (V/m)	Limits (V/m)
0.112-0.205	1% Battery Level	0.4711	0.7258	0.6371	0.7001	0.7705	614
0.112-0.205	50% Battery Level	0.4312	0.7276	0.6276	0.6822	0.7643	614
0.112-0.205	99% Battery Level	0.4726	0.7388	0.6178	0.6974	0.7381	614
0.112-0.205	Stand-by	0.4215	0.7005	0.6012	0.6372	0.7101	614

Configuration photo of the test:

For electronic filing, the worst case radiated emission configuration photographs are saved with filename: RF exposure photos.pdf.

***** End of Report*****