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R&TTE AND AUTOMOTIVE COMPONENTS LABORATORY

FCC RF Exposure Report

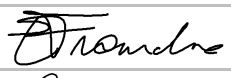
No. ARSO00118/2

performed in accordance with

FCC Rules: Code of Federal Regulations (CFR) no. 47
Part 2.1091

PRODUCT	WIRELESS CHARGING TRANSMITTER
MODEL(s) TESTED	Qi1001
FCC ID	2AD9NQI1001
TRADE MARK(s)	QINSIDE

APPLICANT	NITZ ENGINEERING S.r.l. – Via Alfred Ammon, 16 – 39042 Bressanone (BZ) - ITALY

Tested by	Emanuela Franchina	
Approved by	Roberto Colombo *[Laboratory manager]*	

Revision Sheet

Release No.	Date	Revision Description
Rev. 0	2015-01-09	First edition
Rev. 1	2015-02-17	Grantee Code modified

The results of tests and checks reported in this Test Report refer exclusively to the samples tested and described in the Report itself.
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1. REFERENCE DOCUMENT

	DOCUMENT	DATE	TITLE
☒	47 CFR Part 2.1091	2014	Radiofrequency radiation exposure evaluation: mobile devices
☒	47 CFR Part 1.1307(b)(1)	2014	Radiofrequency radiation exposure evaluation: mobile devicesActions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared
☒	47 CFR Part 1.1310	2014	Radiofrequency radiation exposure limits
☒	680106 D01	2013	RF Exposure Wireless Charging Apps v02

3. REQUIREMENTS

POSSIBLE TEST CASE VERDICTS	
Test object does meet the requirement	PASS
Test object does not meet the requirement	FAIL
Test case does not apply to the test object	N.A.

4. TEST METHOD AND RESULTS

4.1 RF EXPOSURE

KDB 680106 D01(3)(3):

For devices designed for typical desktop applications, such a wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 10 cm. E and H field strength measurements or numerical modeling may be used to demonstrate compliance. Measurements should be 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. Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m.

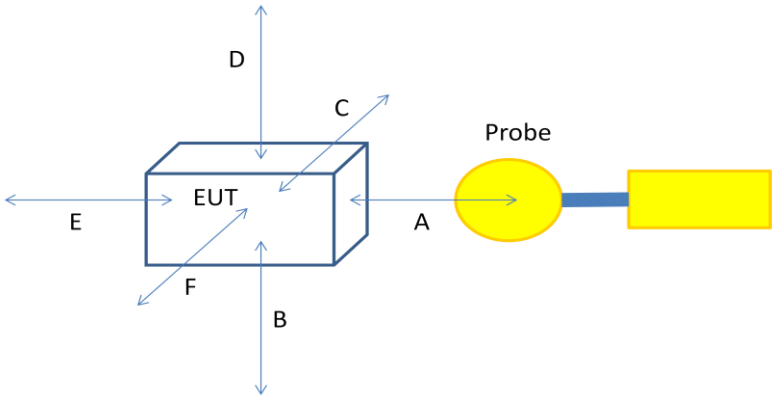
4.2 LIMITS

Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $|E|^2$, $|H|^2$ or S (minutes)
0.3 ~ 3.0	614	1.63	(100)*	30
3.0 ~ 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 ~ 100000	-	-	1.0	30

Note: f is the frequency in MHz. *Plane-wave equipment power density.

4.3 TEST SETUP



4.4 MEASUREMENT CONDITION

During the test the EUT was placed on a non-conductive table top inside a 3m semi anechoic chamber. Maximun E-field and B-field were measured at 10cm from each side of the EUT. The EUT was setup on the charging mode with the maximum load connected and then tested.

4.5 TEST RESULTS

Electric field strength measurement

Measured position	Distance (cm)	Measured value (V/m)	Limit (V/m)
A	10	0.23	614
B	10	0.22	614
C	10	0.22	614
D	10	0.21	614
E	10	0.23	614
F	10	0.22	614

Magnetic field strength measurement

Measured position	Distance (cm)	Measured value (A/m)	Limit (A/m)
A	10	0.012	1.63
B	10	0.013	1.63
C	10	0.011	1.63
D	10	0.012	1.63
E	10	0.013	1.63
F	10	0.012	1.63

4.6 EQUIPMENT LIST

Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
3m Semi-Anechoic Chambre	SIDT EUROPE	---	IMQ No. P-01709	---	---
B-Field probe E-Field probe	Narda Safety Test Solution	EHP200	IMQ No. S-04953	12-2013	12-2015
Caliper	Mitutoyo	CD-15CPX	IMQ No. S-	---	---

4.6 PHOTOGRAPHIC DOCUMENTATION

TEST SETUP