



TEST REPORT

No.I18N01345-MPE

For

DAIMLER AG

CTPDIN

Model Name: CTP2019DTNA

With

Hardware Version: A66-13933-001

Software Version: 127.011.800

FCC ID: 2AKC8CTP13933001

Issued Date: 2019-02-25

Designation Number: CN1210

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of SAICT.

Test Laboratory:

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REPORT HISTORY

Report Number	Revision	Issue Date	Description
I18N01345-MPE	Rev.0	2019-02-25	1st edition

TABLE OF CONTENT

1 TEST LABORATORY	4
1.1 TESTING LOCATION	4
1.2 TESTING ENVIRONMENT.....	4
1.3 PROJECT DATA	4
1.4 SIGNATURE.....	4
2 CLIENT INFORMATION	5
2.1 APPLICANT INFORMATION	5
2.2 MANUFACTURER INFORMATION	5
3 EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE).....	6
3.1 ABOUT EUT	6
3.2 INTERNAL IDENTIFICATION OF EUT USED DURING THE TEST	6
3.3 INTERNAL IDENTIFICATION OF AE USED DURING THE TEST	6
4 TEST METHODOLOGY.....	7
5 GENERAL DESCRIPTION	7
5.1 EVALUATION DISTANCE.....	7
5.2 EVALUATION METHOD	7
6 ASSESSMENT RESULT	7
6.1 REFERENCE LEVELS LIMITS	7
6.2 REFERENCE LEVELS EVALUATION	7

1 Test Laboratory

1.1 Testing Location

Company Name:	Shenzhen Academy of Information and Communications Technology
Address:	Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, P. R. China
Postal Code:	518026
Telephone:	+86-755-33322000
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1.2 Testing Environment

Temperature:	18°C~25 °C
Relative humidity:	30%~ 70%
Ground system resistance:	<4Ω
Ambient noise & Reflection:	< 0.012 W/kg

1.3 Project Data

Testing Start Date:	Feb 18, 2019
Testing End Date:	Feb 18, 2019

1.4 Signature



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(Prepared this test report)



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(Reviewed this test report)



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(Approved this test report)

2 Client Information

2.1 Applicant Information

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2.2 Manufacturer Information

Company Name:	Bosch Car Multimedia Portugal, S.A.
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3 Equipment under Test (EUT) and Ancillary Equipment (AE)

3.1 About EUT

Description:	CTPDIN
Model name:	CTP2019DTNA
Condition of EUT as received	No obvious damage in appearance
Operating mode(s):	GSM850/1900, WCDMA850/1700/1900, LTE Band2/4/5/7/17, WIFI2.4G, Bluetooth
GPRS/EDGE Multislot Class:	12
GPRS capability Class:	B
Test device Production information:	Production unit
Tx Frequency:	825 – 848.8MHz (GSM 850)
	1850.2 – 1910MHz (GSM 1900)
	826.4 – 846.6MHz (WCDMA850 Band V)
	1712.4 – 1752.6MHz (WCDMA1700 Band IV)
	1852.4 – 1907.6MHz (WCDMA1900 Band II)
	1850.7 – 1909.3MHz (LTE_FDD Band 2)
	1710.7 – 1754.3MHz (LTE_FDD Band 4)
	824.7 – 848.3MHz (LTE_FDD Band 5)
	2502.5 – 2567.5MHz (LTE_FDD Band 7)
	704 – 716MHz (LTE Band 17)
	2412 – 2462MHz (Wi-Fi 2.4G)
	2402 – 2480MHz (BT 2.4G)

3.2 Internal Identification of EUT used during the test

EUT ID*	IMEI	HW Version	SW Version
EUT1	/	A66-13933-001	127.011.800

*EUT ID: is used to identify the test sample in the lab internally.

3.3 Internal Identification of AE used during the test

AE ID*	Description	Type	Manufacturer
/	/	/	/

*AE ID: is used to identify the test sample in the lab internally.

4 Test Methodology

- FCC Part 2 (Section 2.1091 and 1.1310)
- 447498 D03 Supplement C Cross-Reference v01
- IEEE C95.1-1992

5 General Description

5.1 Evaluation Distance

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user.

5.2 Evaluation Method

Evaluation Method

$$P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

6 Assessment Result

6.1 Reference Levels Limits

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
30–300	27.5	0.073	0.2	30
300–1500			$f/1500$	30
1500–100,000			1.0	30

f = frequency in MHz

P_d = Plane-wave equivalent power density

6.2 Reference Levels Evaluation

Antenna band	Average gain (dBm)	Max Conducted Power (dBm)
GSM 850	0	33.25
GSM 1900	0	30.20
WCDMA 850	0	24.50
WCDMA 1700	0	24.50
WCDMA 1900	0	24.50
LTE Band 2	0	24.00

LTE Band 4	0	24.00
LTE Band 5	0	24.00
LTE Band 7	0	24.00
LTE Band 17	0	24.00
WIFI 2.4G	0	12.89
Bluetooth	0	9.65

Power Density Calculations				
Evaluation Mode	Maximum E.I.R.P. (dBm)	Power Density (W/m ²)	Limit (W/m ²)	Conclusion
GSM 850	2113.49	0.42	0.56	Pass
GSM 1900	1047.13	0.21	1.00	Pass
WCDMA 850	281.84	0.06	0.56	Pass
WCDMA 1700	281.84	0.06	1.00	Pass
WCDMA 1900	281.84	0.06	1.00	Pass
LTE Band 2	251.19	0.05	1.00	Pass
LTE Band 4	251.19	0.05	1.00	Pass
LTE Band 5	251.19	0.05	0.56	Pass
LTE Band 7	251.19	0.05	1.00	Pass
LTE Band 17	251.19	0.05	0.50	Pass
WIFI 2.4G	19.45	0.004	1.00	Pass
Bluetooth	9.23	0.002	1.00	Pass

Simultaneous transmission of WLAN and GSM as worst case

$0.42 \text{ W/M}^2 \text{ (GSM 850)} + 0.004 \text{ W/M}^2 \text{ (WIFI 2.4G)} = 0.0424 \text{ W/M}^2$

0.0424 W/M² is below limit of 0.56 W/M²

*****END OF REPORT*****