



TEST REPORT

No.I19N00406-MPE

For

DAIMLER AG

CTPDIN

Model Name: CTP2019

With

Hardware Version: A 000 446 5960

Software Version: 126.200.800

FCC ID: 2AMIOCTP4465960

Issued Date: 2019-09-30

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:

Shenzhen Academy of Information and Communications Technology

Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, P. R. China 518026.

Tel: +86(0)755-33322000, Fax: +86(0)755-33322001

Email: yewu@caict.ac.cn, website: www.cszit.com

REPORT HISTORY

Report Number	Revision	Issue Date	Description
I19N00406-MPE	Rev.0	2019-09-30	1st edition

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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
Fax:	+86-755-33322001

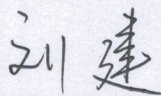
1.2 Testing Environment

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

1.3 Project Data

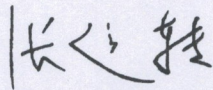
Testing Start Date:	Sep 30, 2019
Testing End Date:	Sep 30, 2019

1.4 Signature



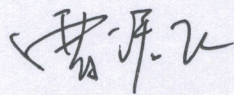
Liu Jian

(Prepared this test report)



Zhang Yunzhuan

(Reviewed this test report)



Cao Junfei

Deputy Director of the laboratory

(Approved this test report)

2 Client Information

2.1 Applicant Information

Company Name:	DAIMLER AG
Address /Post:	Mercedesstraße 137, 70327 Stuttgart, Germany
Contact:	Jan Waldmann
Email:	jan.waldmann@daimler.com
Telephone:	+49-711-17-40099
Fax:	+49-711-3052-148458

2.2 Manufacturer Information

Company Name:	Bosch Car Multimedia Portugal, S.A.
Address /Post:	Rua Max Grundig, 35 – Lomar, 4705-820 Braga, Portugal
Contact:	Eliseu Vieira
Email:	Eliseu.Vieira@pt.bosch.com
Telephone:	+351(253)30-6307
Fax:	/

3 Equipment under Test (EUT) and Ancillary Equipment (AE)

3.1 About EUT

Description:	CTPDIN
Model name:	CTP2019
Condition of EUT as received	No obvious damage in appearance
Operating mode(s):	GSM850/1900, WCDMA850/1900, 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)
	1852.4 – 1907.6MHz (WCDMA1900 Band II)
	824.7 – 848.3MHz (LTE_FDD Band 5)
	2502.5 – 2567.5MHz (LTE_FDD Band 7)
	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	/	A 000 446 5960	126.200.800

*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 1900	0	24.50
LTE Band 5	0	24.00
LTE Band 7	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 1900	281.84	0.06	1.00	Pass
LTE Band 5	251.19	0.05	0.56	Pass
LTE Band 7	251.19	0.05	1.00	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/M^2 is below limit of 0.56 W/M^2

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