RF – TEST REPORT

- Human Exposure -

Type / Model Name	:	BCM37WBL
Product Description	:	Body Control Module
Applicant	:	Continental Automotive GmbH
Address	:	Siemensstrasse 12
		93055 REGENSBURG, GERMANY
Manufacturer	:	Continental Automotive GmbH
Address	:	Siemensstrasse 12
		93055 REGENSBURG, GERMANY

Test Result according to the standards listed in clause 1 test standards:	**POSITIVE**

Test Report No. : 80211112-01 Rev_1	11. June 2024 Date of issue

Deutsche Akkreditierungsstelle
D-PL-12030-01-03
D-PL-12030-01-04

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FCC ID: KR5BCM37WBL

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1 TEST STANDARDS

The tests were performed according to following standards:

FCC Rules and Regulations Part 1, Subpart I - Procedures Implementing the National Environmental Policy Act of 1969	
Part 1, Subpart I, Section 1.1310	Radiofrequency radiation exposure limits
Part 1, Subpart 2, Section 2.1091	Radiofrequency radiation exposure evaluation: **mobile devices**.
Part 1, Subpart 2, Section 2.1093	Radiofrequency radiation exposure evaluation: **portable devices**.
KDB 447498 D04 v01	RF Exposure procedures and equipment authorisation policies for mobile and portable devices, November 29, 2021.
ANSI C95.1: 2005	IEEE Standard for Safety Levels with respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
ETSI TR 100 028 V1.3.1: 2001-03,	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); Uncertainties in the Measurement of Mobile Radio Equipment Characteristics—Part 1 and Part 2

2 EQUIPMENT UNDER TEST

2.1 Information provided by the Client

Please note, we do not take any responsibility for information provided by the client or his representative which may have an influence on the validity of the test results.

2.2 Sampling

The customer is responsible for the choice of sample. Sample configuration, start-up and operation is carried out by the customer or according his/her instructions.

2.3 Photo documentation of the EUT

Detailed photos see ATTACHMENT A and ATTACHMENT B

Attachment A: External views
Attachment B: Internal views

2.4 Equipment type, category

Vehicular use, mobile equipment.

2.5 Short description of the equipment under test (EUT)

The VW BCM37WBL BCM is a Body Control Module with integrated UHF transceiver which handles KESSY (Keyless Entry Start SYstem), Service Key and FZV (central door locking) wireless functions. The VW BCM37WBL integrated TRX is the wireless gateway between vehicle keys (handheld TRX) and BCM. The BCM is only transmitting in KESSY and Service key mode. FZV is a receiving only function. The KESSY and Service key modes have different power settings.

Number of tested samples:	2
Serial number:	SME-RBG12.04.2400420498 (Kessy) SME-RGB12.04.2400420499 (Service Key)
Firmware version:	H26
Hardware version:	0322(VW VR18 PV4)

2.6 EUT operation mode

The equipment under test was operated during the measurement under the following conditions:

- Continuous unmodulated TX mode at 433.90 MHz and 434.34 MHz (-20 kHz frequency deviation)

2.7 Antennas

The antenna is a PCB monopole antenna with a gain of -1.1 dBi.

2.8 Power supply system utilised

Power supply voltage, V_{nom} : 12 V DC

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3 TEST RESULT SUMMARY

Operating in the 260 MHz – 470 MHz band:

FCC Rule Part	RSS Rule Part	Description	Result
KDB 447498, 2.1.2	-	1-mW Test Exemption	passed

3.1 Revision history of test report

Test report No	Rev.	Issue Date	Changes
80211112-01	0	07 June 2024	Initial test report
80211112-01	1	11. June 2024	Change of type designation.

The test report with the highest revision number replaces the previous test reports.

3.2 Final assessment

The equipment under test fulfills the requirements cited in clause 1 test standards.

Date of receipt of test sample : acc. to storage records

Testing commenced on : 06 May 2024

Testing concluded on : 08 May 2024

Checked by:

Klaus Gegenfurtner
I confirm the correctness and integrity of this document
2024.06.11 11:33:50 +02'00'

Klaus Gegenfurtner
Teamleader Radio

Tested by:

Josef Knab
I'm the autor of this document.
2024.06.11 09:06:50 +02'00'

Josef Knab
Radio Team

4 TEST ENVIRONMENT

4.1 Address of the test laboratory

CSA Group Bayern GmbH
Ohmstrasse 1-4
94342 STRASSKIRCHEN
GERMANY

4.2 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15 - 35 °C
Humidity:	30 - 60 %
Atmospheric pressure:	86 - 106 kPa

4.3 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. It is noted that the expanded measurement uncertainty corresponds to the measurement results from the standard measurement uncertainty multiplied by the coverage factor k = 2. The true value is located in the corresponding interval with a probability of 95 %. The measurement uncertainty was calculated for all measurements listed in this test report on basis of the ETSI Technical Report TR 100 028 Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 1 and Part 2. The results are documented in the quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

4.4 Conformity Decision Rule

The applied conformity decision rule is based on ILAC G8:09/2019 clause 4.2.1 Binary Statement for Simple Acceptance Rule (w = 0).
Details can be found in the procedure CSA_B_V50_29.

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5 HUMAN EXPOSURE

5.1 RF Exposure Test Exemptions for Single Source

5.1.1 Applicable standard

RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices

5.1.2 1-mW Test Exemption

Per § 1.1307(b)(3)(i)(A), a single RF source is exempt RF device (from the requirement to show data demonstrating compliance to RF exposure limits, as previously mentioned) if the available maximum time-averaged power is no more than 1 mW, regardless of separation distance.
This exemption applies to all operating configurations and exposure conditions, for the frequency range 100 kHz to 100 GHz, regardless of fixed, mobile, or portable device exposure conditions. This is a standalone exemption, and it cannot be applied in conjunction with any other test exemption.

EIRP[dBm] = E[dBµV/m] + 20 log (d[m]) − 104.77

where:
- E is the field strength in dBµV/m;
- d is the measurement distance in m;
- EIRP is the equivalent isotropically radiated power in dBm.

Protocol	Frequency [MHz]	Measured Field Strength [dBµV/m @ 3m]	Calculated EIRP [dBm]	Calculated EIRP [mw]	RF Exposure Limit [mW]	Result
KESSY	433.90	80.2	-15.0	0.032	1	passed
KESSY	434.34	80.2	-15.0	0.032	1	passed
Service key	433.90	80.4	-14.8	0.033	1	passed
Service key	434.34	80.1	-15.1	0.031	1	passed

The requirements are **FULFILLED.**

Remarks: The result was taken from the test report of CSA Group Bayern GmbH “80211112-00 Rev_1”.

Conclusion: SAR evaluation is not needed.

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