

Test Report

of the accredited Testing Laboratory
0274 – TÜV AUSTRIA GMBH – Location Vienna - EMC Radio
ISED Laboratory Company Number: 2932K, CAB identifier: AT0001

Order Confirmation Number: 2025-AT-TC-EE-ET-EX-0-000031

About

the Radio - test listed below

Applicant: Kapsch TrafficCom AG
Am Europlatz 2
A – 1120 Wien

Tested product: C-V2X Radiocommunications equipment

Product Name: C-V2X Road Side Unit

Model: RIS-9360-Q000

Accredited regulation: FCC: 47 CFR Part 2 (eCFR 16.05.2025)
Not-accredited regulation: KDB 447498

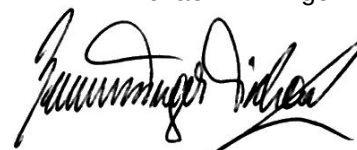
Andreas Malek



Examined by / Testing Laboratory
TÜV AUSTRIA GMBH



Michael Emminger



Approved by / Testing Laboratory
TÜV AUSTRIA GMBH

The results of this test report only refer to the provided equipment.

Issued on 27.11.2025 in Vienna / TIC

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1. Applicant

Company: Kapsch TrafficCom AG

Department: Solution Center Traffic

Address: A - 1120 Wien; Am Europlatz 2

Contact person: Mr. Dipl.Ing. Christoph Bichl, MSc

EUT received on: /

Tests were performed on: Mai 16th 2025 and November 27th 2025

2. Description of EUT

EUT: C-V2X Radiocommunications equipment
RIS-9360-Q000

Serial Number: /

Manufacturer: Kapsch TrafficCom AG
A - 1120 Wien; Am Europlatz 2

Description: C-V2X Roadside Unit

Operating mode: /

Technical data EUT: Rated voltage: 48V (PoE)
Rated current: 0,5A
Rated frequency: DC

Mains voltage during the tests: 48V DC via PoE Adapter

FCC-ID: XZU9360-3001
Frequency: 5895 – 5925 MHz
Output power: +32 dBm eirp (23 dBm conducted into two antennas,
not transmitting simultaneously)
Maximum allowed antenna gain: max. 9 dBi
Planned antenna gain 7,6 dBi (antenna data sheet
ANT_Datasheet_GTT-Wireless-OA-59-07-CN.pdf)

Climatic conditions in the emc laboratory: /

3. Standards / Final result

Name	Title	Deviation	Result
FCC: 47 CFR Part 2 (eCFR 16.05.2025)	FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS	none	OK
KDB 447498	447498 D04 Interim General RF Exposure Guidance v01	none	OK
Result: OK: NOK: Opinions and interpretation of testing laboratory EUT passed EUT failed			

4. Test results

4.1 TEST OBJECT DATA

General EUT Description

This fixed transceiver is a Road Side Unit operating in the ITS Service using C-V2X technology.

2.1033 (c) Technical description

2.1033 (7) Type of emission: OFDM with 10 or 20 MHz Bandwidth – ITU emission designator: 9M0W7D or 18M0W7D

2.1033 (8) Frequency range: two center operating frequencies: 5900 MHz with 9M0W7D and 5915 MHz with 18M0W7D modulation.

2.1033 (9) Power range and Controls: The maximum declared output power is 200 Milliwatts into two antennas, that are operating in diversity mode, so no simultaneous transmissions. There is no power control or regulation accessible to the user.

2.1033 (10) Maximum output power rating: 200 Milliwatts conducted power

2.1033 (11) DC Voltage and Current to the final stages: 48 VDC
maximum current consumption: 0,5 A

RF exposure evaluations were performed on: Mai 16th 2025 and November 27th 2025.

4.2. RF Exposure

KDB 447498 D04
§2.1091
§1.1307(b)(3)(i)(B)

according to KDB 447498 D04 Interim General RF Exposure Guidance v01 "RF EXPOSURE PROCEDURES AND EQUIPMENT AUTHORIZATION POLICIES FOR MOBILE AND PORTABLE DEVICES".

The evaluation followed the flowchart in Figure A.1.

Title 47 §1.1307(b)(3)(i)(B):

(3) Determination of exemption.

(i) For single RF sources (i.e., any single fixed RF source, mobile device, or portable device, as defined in paragraph (b)(2) of this section): A single RF source is exempt if:

(B) Or the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold P_{th} (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by:

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

Where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right) \text{ and } f \text{ is in GHz;}$$

and

$$ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases}$$

d = the separation distance (cm);

The device uses two antennas for diversity, simultaneous transmission is not possible, see test report 2025-AT-TC-EE-ET-EX-0-000031-FG-001-E2, 4.1.

EIRP power values in test report 2025-AT-TC-EE-ET-EX-0-000031-FG-001-E2 are derived according to ANSI C63.26 5.2.4.4, with maximum antenna gain of 9 dBi added to the conducted measurement result.

The manufacturer has declared a maximum conducted output power including production variance and tune-up tolerance of 23 dBm. The value is given in operational description exhibit, "Operational Description Roadside ITS Station RIS-9360," Doc No. 47000002204, Version 1.0, 2025-09-04.

The manufacturer plans to certify the device with an antenna with maximum gain of 7,6 dBi, see antenna data sheet ANT_Datasheet_GTT-Wireless-OA-59-07-CN.pdf. Nonetheless, calculations here are performed for antennas with max. gain of 9 dBi, resulting in a max. EIRP of 23 dBm + 9 dBi = 32 dBm.

SAR exemption calculations are done for mobile exposure with a minimum separation distance of $d = 20$ cm.

Duty cycle measurements are not available, a worst case duty cycle of 1 is assumed.

	f [MHz]	Pth [mW]	max cond. [mW]	max gain [dBi]	EIRP [mW]	ERP [mW]	max(max. TAP, ERP)	maxP/Pth [1]
Antenna 1	5900	3060	200	9	1588,66	968,69	968,69	0,32
Antenna 1	5915	3060	200	9	1588,66	968,69	968,69	0,32
Antenna 2	5900	3060	200	9	1588,66	968,69	968,69	0,32
Antenna 2	5915	3060	200	9	1588,66	968,69	968,69	0,32

The available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold Pth (mW) for all emissions.

The device is a SAR exempt RF device as per Title 47 §1.1307(b)(3)(i)(B).

--- END OF TEST REPORT ---

Unterzeichner <i>Signer</i>	Andreas Malek	 
Datum, Zeit <i>Date, time</i>	2025.11.27 12:05:30 MEZ	
Aussteller-Zertifikat <i>Issuer's certificate</i>	TÜV AUSTRIA Group	
Seriennummer <i>Serial number</i>	149890241659918425371750949	
Prüfinformation <i>Check information</i>	Informationen zur Prüfung der elektronischen Signatur finden Sie unter: https://www.signaturpruefung.gv.at	
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Unterzeichner <i>Signer</i>	Michael Emminger	 
Datum, Zeit <i>Date, time</i>	2025.11.27 12:06:47 MEZ	
Aussteller-Zertifikat <i>Issuer's certificate</i>	TÜV AUSTRIA Group	
Seriennummer <i>Serial number</i>	106628606033754500607105552	
Prüfinformation <i>Check information</i>	Informationen zur Prüfung der elektronischen Signatur finden Sie unter: https://www.signaturpruefung.gv.at	
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