

Technical Report No.: 260065 – 18 – TAC
Regulation: ECE No. 010.05
Manufacturer: Advantech B+B SmartWorx s.r.o., Czech Republic
Type: ICR-3200

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UN/ECE Technical Service No. E8/C and E27/J
Testing Laboratory No. 1107 accredited by ČIA according to ČSN EN ISO/IEC 17025:2005

TECHNICAL REPORT
No. 260065 – 18 – TAC

Test according to Regulation ECE No. 010.05

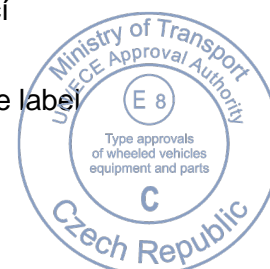
Uniform provisions concerning the approval of vehicles
with regard to electromagnetic compatibility

ECE No. 010.00 – date of entry into force: 1969-04-01
including all amendments up to and including:
ECE No. 010.05, supplement 01 – date of entry into force: 2016-10-08

Objectives: Document for issue of approval certificate

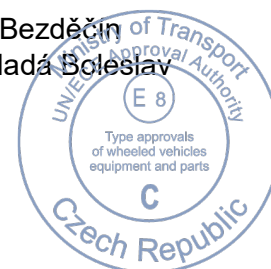
I. Technical data

- 0.1. Make (trade name of manufacturer): Advantech B+B SmartWorx s.r.o.
- 0.2. Type: ICR-3200
mobile unit and accessories
- 0.2.1. Variants: ICR-3231-XYZ
ICR-3231W-XYZ
ICR-3232-XYZ
ICR-3232W-XYZ
ICR-3241-XYZ
ICR-3241W-XYZ
- 0.3. Means of identification of type: Variant number on the label
- 0.3.1. Location of that marking: On the bottom of unit box
- 0.5. Name and address of manufacturer: Advantech B+B SmartWorx s.r.o.
Sokolská 71
562 04 Ústí nad Orlicí
Czech Republic
- 0.8. Address of assembly plant: Advantech B+B SmartWorx s.r.o.
Sokolská 71
562 04 Ústí nad Orlicí
Czech Republic
- 0.9. Location of the approval mark: E-mark symbol on the label



II. Test report**1. Test conditions**

- 1.1. Test sample: Mobile unit type ICR-3200 (Industrial Cellular Router) variant ICR-3231W, sample No.1 with 5 antennas (2x WiFi, 2x LTE, GPS) and wired harness with connector 9 – 36V DC, negative ground
- 1.2. Test procedures used: Acc. to ECE Regulation no. 10.05 para. no. 6.5. - 6.9. and annexes no. 7 - 10
- 1.3. Measuring and test equipment: Radiated interference measuring set:
Test receiver ROHDE & SCHWARZ ESR 7, ID:1316.300K07-101275xW, PM-2935
Log. periodical antenna SUNOL SCIENCES JB 3, s.n. A012006, PM-1936
LISN NARDA L1-150M, s.n. 000WT70703, ZZ 446
LISN NARDA L1-150M, s.n. 000WX20101, ZZ 284
LISN NARDA L1-150M, s.n. 000WT70701, ZZ-443
LISN NARDA L1-150M, s.n. 000WT70702, ZZ-444
Anechoic chamber: ETS-Lindgren FACT 25, ZZ 458
EMC test software ROHDE & SCHWARZ EMC 32 (radiation measurement & immunity testing).
Transient simulator for automotive electronics EM TEST AG, type UCS 200 M, s.n. V0817103673, PM-1937
Power supply MCPOWER, MRGN-900, Art.-Nr.1542493
Scopemeter FLUKE199C, s.n. DM 8140090, PM-669
Digital oscilloscope LeCroy 610Zi, model WAVERUNNER 610Zi
Termohygrobarometr Comet D4141, s.n. 16910106, PM-3232
- 1.4. Worst case evaluation: Variant with most functions and accessories
- 1.5. Testing conditions: Indoor test, 23°C, 27V DC power supply
- 1.6. Test track or site: EMC Laboratories of TÜV SÜD Czech s.r.o.
Novodvorská 994/138, 142 21 Praha 4
Czech Republic
UNO TECHNOLOGY PARK Bezděčín
Hala H1a č.p. 108, 293 01 Mladá Boleslav
Czech Republic



2. Test results

- 2.1. Broadband radiated emissions
(Regulation 010.05, par. 6.5.) **Pass**, see graphs (red line)
- 2.2. Narrowband radiated emissions
(Regulation 010.05, par. 6.6.) **Pass**, see graphs (blue line)
- 2.3. Emission of conducted disturbances
(Regulation 010.05, par. 6.7.) **Pass**, +27,6V and -5,6V
- 2.4. Immunity to electromagnetic radiation
(Regulation 010.05, par. 6.8.) **N/A**, ESA is not immunity related device
- 2.5. Immunity to transient disturbances
conducted along supply lines
(Regulation 010.05, par. 6.9.) **Pass**, see results below

Impulse type	Test level	Required status (at least)	Result status (equal to or better)
1	III	D	C
2a	III	D	A
2b	III	D	C
3a/3b	III	D/D	A/A
4	III	D	A

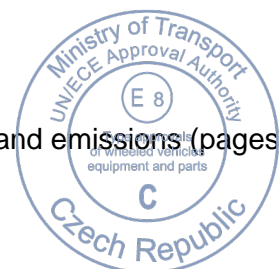
3. Specimen submitted to test on: 2018-08-28

4. Date of test: 2018-08-28 to 2018-08-29

III. Manufacturer's information folder No. 010 – ICR-3200 – 00
 6 pages total of 2018-08-03

IV. Other documentation

Graphs: Broadband and narrowband emissions (pages 5)



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V. **Attachments**

No attachments

Measuring and test equipment and test site meet the requirements of the applicable legislation. This report must never be reproduced incomplete and without a written permission of the testing laboratory. TÜV SÜD Czech confidentiality degree: confidential.

The final assessment exceeds the accreditation scope.

VI. **Final assessment**

The described sample

complies

with the requirements of ECE Regulation No. 010.05
for issue of approval certificate.

This technical report consists of pages No. 1 to 5 and has no attachments.

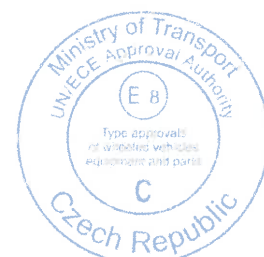
Karel Tajovský

Test executive

Lukáš Sedláček

Officially recognized expert

Prague, 2018-08-30



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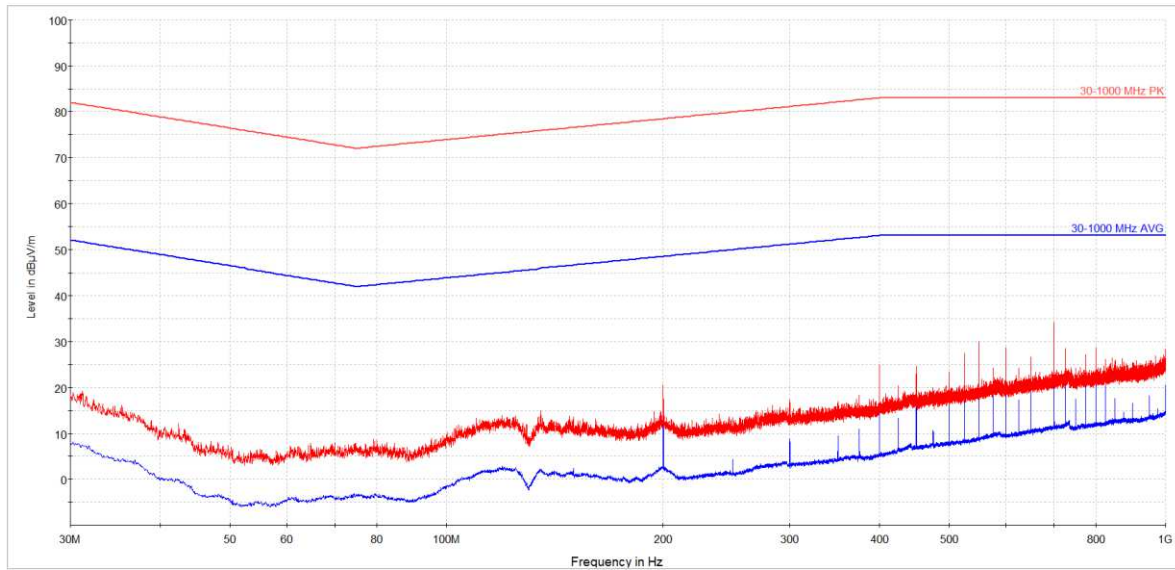
TÜV SÜD Czech s.r.o.
260065 – 18 – TAC
ECE No. 010.05
Advantech B+B SmartWorx s.r.o., Czech Republic
ICR-3200



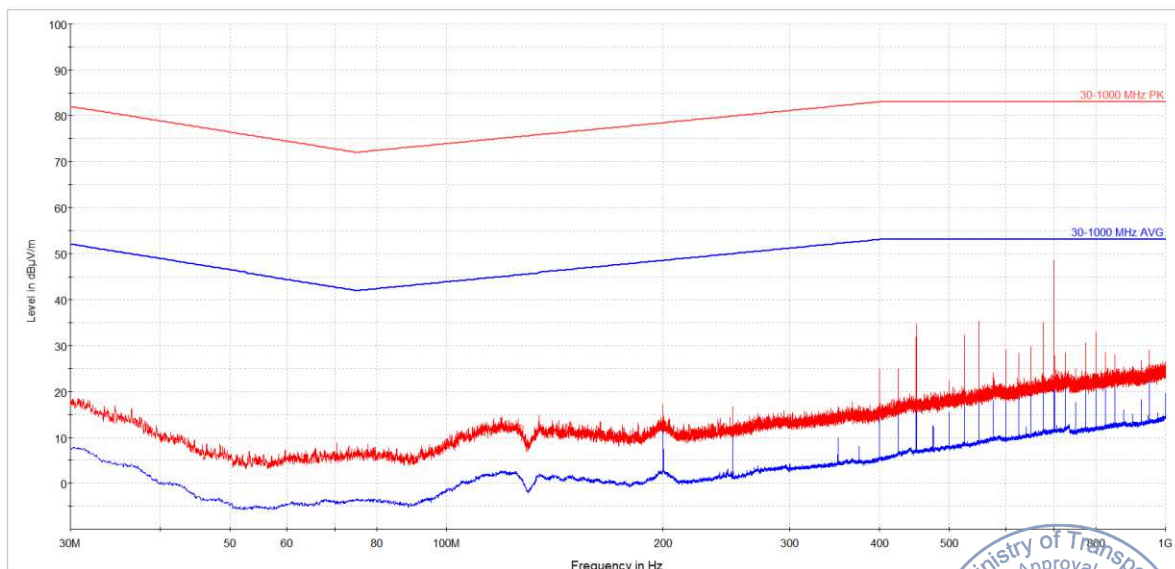
Graphs

**Measured and limit values of broadband (red line)
and narrowband radiated emissions (blue line)**

Horizontal antenna polarization



Vertical antenna polarization



End of the technical report

