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Replace GB 34660-2017

**Road Vehicles—Requirements and Test Methods of
Electromagnetic Compatibility**
道路车辆 电磁兼容性要求和试验方法

(English Translation)

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FOREWORD

This document is drafted in accordance with the rules given in GB/T 1.1-2020 “*Directives for standardization - Part 1: Rules for the structure and drafting of standardizing documents*”.

This document replaces GB 34660-2017 “*Road vehicles—Requirements and test methods of electromagnetic compatibility*”. In addition to structural adjustments and editorial modifications, the following significant technical changes have been made with respect to GB 34660-2017:

- a) Modified the definition of term “immunity related functions” (See 3.3 vs. 3.3 of GB 34660-2017);
- b) Modified the emission limits for narrowband electromagnetic radiation from vehicles (10m) and (3m) (See 4.3 vs. 4.3 of GB 34660-2017);
- c) Deleted the method of replacing the measurement of narrowband radiated emissions from vehicles with the measurement of vehicle broadcast band (See 4.3.3 of GB 34660-2017);
- d) Modified the requirements for immunity of vehicles to radiation, and added the immunity requirements for the frequency band of 2,000 MHz to 6,000 MHz and the alternative test method for the vehicle in a reverberation chamber (See 4.4 vs. 4.4 of GB 34660-2017);
- e) Modified the requirements for immunity of ESAs to radiation, added the immunity requirements for the frequency band of 2,000 MHz to 6,000 MHz and the alternative test method for the ESA in a reverberation chamber, and deleted the 800 mm stripline method (See 4.7 vs. 4.7 of GB 34660-2017);
- f) Modified the test conditions for immunity of ESAs to transient disturbances conducted along supply lines and the functional performance status requirements, deleted the test pulse 4, and added the test pulse parameters (See 4.8 vs. 4.8 of GB 34660-2017);
- g) Deleted the BCI alternative test method for vehicles (See 5.4.1.4 of GB 34660-2017);
- h) Added the administrative provisions on vehicle type test (See 6.1);
- i) Added the technical conditions for determination of the same type and test items (See 6.2);
- j) Modified the test for emissions of broadband electromagnetic radiation from vehicles (See Annex B vs. 5.2 of GB 34660-2017);
- k) Modified the test for emissions of narrowband electromagnetic radiation from vehicles (See Annex C vs. 5.3 of GB 34660-2017);
- l) Modified the test for immunity of vehicles to electromagnetic radiation (See Annex D vs. 5.4 of GB 34660-2017);
- m) Modified the test for emissions of broadband electromagnetic radiation from ESAs (See Annex E vs. 5.5 of GB 34660-2017);
- n) Modified the test for emissions of narrowband electromagnetic radiation from ESAs (See Annex F vs. 5.6 of GB 34660-2017);
- o) Modified the test for immunity of ESAs to electromagnetic radiation (See Annex G vs. 5.7 of GB 34660-2017);
- p) Modified the test for immunity of ESAs to transient disturbances conducted along supply lines (See Annex H vs. 5.8 of GB 34660-2017);
- q) Modified the test for transient conducted emission from ESAs (See Annex I vs. 5.9 of GB 34660-2017);

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This document was proposed by and is under the jurisdiction of the Ministry of Industry and Information

Technology of the People's Republic of China.

This document was firstly issued in 2017; this is the first revision.

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Road Vehicles—Requirements and Test Methods of Electromagnetic Compatibility

1 SCOPE

This document specifies the limits for and immunity to electromagnetic emissions from vehicles and their electrical/electronic sub-assemblies, and describes their respective test methods.

This document applies to the Categories M, N and L vehicles and their electrical/electronic sub-assemblies.

2 NORMATIVE REFERENCES

The following normative documents contain provisions which, through normative reference in this text, constitute essential provision of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendment) applies.

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|--------------------|---|
| GB/T 6113.104-2021 | Specification for radio disturbance and immunity measuring apparatus and methods—Part 1-4: Radio disturbance and immunity measuring apparatus—Antennas and test sites for radiated disturbance measurements |
| GB/T 21437.2-2021 | Road vehicles—Test method of electrical disturbances from conduction and coupling—Part 2: Electrical transient conduction along supply lines only |
| GB/T 29259-2012 | Road vehicle - Electromagnetic compatibility terminology |
| GB/T 33012.1-2016 | Road vehicles—Vehicle test methods for electrical disturbances from narrowband radiated electromagnetic energy—Part 1: General |
| GB/T 33012.2-2016 | Road vehicles—Vehicle test methods for electrical disturbances from narrowband radiated electromagnetic energy—Part 2: Off-vehicle radiation sources |
| GB/T 33014.1-2016 | Road vehicles—Component test methods for electrical/electronic disturbances from narrowband radiated electromagnetic energy—Part 1: General |
| GB/T 33014.2-2025 | Road vehicles—Component test methods for electrical/electronic disturbances from narrowband radiated electromagnetic energy—Part 2: Absorber-lined shielded enclosure |
| GB/T 33014.3-2016 | Road vehicles—Component test methods for electrical/electronic disturbances from narrowband radiated electromagnetic energy—Part 3: Transverse electromagnetic (TEM) cell |
| GB/T 33014.4-2025 | Road vehicles—Component test methods for electrical/electronic disturbances from narrowband radiated electromagnetic energy—Part 4: Harness excitation methods |
| GB/T 33014.5-2016 | Road vehicles—Component test methods for electrical/electronic disturbances from narrowband radiated electromagnetic energy—Part 5: Stripline |
| GB/T 33014.11-2023 | Road vehicles—Component test methods for electrical/electronic disturbances from narrowband radiated electromagnetic energy—Part 11: Reverberation chamber |
| ISO 11451-2:2025 | Road vehicles — Vehicle test methods for electrical disturbances from |

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