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Road vehicles - Functional safety - Part 10: Guideline

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Foreword

This document was drafted in accordance with the rules provided in GB/T 1.1-2020 Directives

for Standardization - Part 1.Rules for the Structure and Drafting of Standardizing Documents.

This document is Part 10 of GB/T 34590 Road Vehicles - Functional Safety. GB/T 34590 has

issued the following parts.

- Part 1.Vocabulary;
- Part 2.Management of Functional Safety;
- Part 3.Concept Phase;
- Part 4.Product Development at the System Level;
- Part 5.Product Development at the Hardware Level;

- Part 6.Product Development at the Software Level;
- Part 7.Production, Operation, Service and Decommissioning;
- Part 8.Supporting Processes;
- Part 9.Automotive Safety Integrity Level (ASIL)-oriented and Safety-oriented Analyses;
- Part 10.Guideline;
- Part 11.Guidelines on Applications to Semiconductors;
- Part 12.Adaptation for Motorcycles.

This Document replaced GB/T 34590.10-2017 Road vehicles - Functional safety - Part 10. Guideline. Compared with GB/T 34590.10-2017, the major technical changes of this Document

are as follows besides the structural adjustment and editorial modifications.

- Change the scope of application of the standard from "mass-produced passenger cars" into "mass-produced road vehicles other than mopeds"; and modify the description of the scope (see Clause 1 of this Edition; Clause 1 of 2017 Edition);
- Add "FTTI and emergency operation fault tolerance time interval" (see 4.4 of this Edition);
- Change the description of the general provisions of the accreditation measures (see 5.2.1 of this Edition; 5.2.1 of 2017 Edition);
- Change the description of functional safety assessment (see 5.2.2 of this Edition; 5.2.2 of 2017 Edition);
- Change the description of the understanding of the safety profile (see 5.3 of this Edition;

5.3 of 2017 Edition);

- Change the description in Figure 8 (see Figure 8 of this Edition; Figure 7 of 2017 Edition);
- Change the description in Figure 9 (see Figure 9 of this Edition; Figure 8 of 2017 Edition);
- Change the description of the consideration of exposure duration in the calculation of the probability measure of random hardware failure (PMHF) (see 8.3.2.2 of this Edition;

8.3.3 of 2017 Edition);

--- Add "typical dual-point failure mode (intended function and safety mechanism)" (see

8.3.2.3 of this Edition);

--- Add "calculation formula" (see 8.3.2.4 of this Edition);

--- Add "PMHF unit --- average probability per hour (see 8.4 of this Edition);

--- Add "Guidelines for the development of systems with safety-related availability requirements" (see Clause 12 of this Edition);

--- Delete Annex A of 2017 edition.

This Document modifies and adopts ISO 26262-10:2018 Road Vehicles - Functional Safety -

Part 10. Guidelines on ISO 26262.

The technical differences and causes between this Document and ISO 26262-10:2018 are as follows.

--- Change the subclause structure of 13.3 (see 13.3) [Translator Note. here it shall be 12.3];

so that the subclause structure is more rational.

This Document made the following editorial modifications.

--- Change the paragraph sequence of the Scope;

--- Delete the title of 4.3.1.

Please note some contents of this Document may involve patents. The issuing agency of this

Document shall not assume the responsibility to identify these patents.

This Document was proposed by the Ministry of Industry and Information Technology of PRC.

This Document shall be under the jurisdiction of National Technical Committee on Auto of Standardization Administration of China (SAC/TC 114).

The historical editions replaced by this Document are as follows.

--- GB/T 34590.10-2017 was first-time published in 2017;