

ICS 43.040.10

CCS T 36



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 33014.5-2016

**Road vehicles -- Component test methods for
electrical/electronic disturbances from narrowband radiated
electromagnetic energy -- Part 5: Strip line**

道路车辆 电气电子部件对窄带辐射电磁能的抗扰性试验方法 第5部分：带状线法

(English Translation)

Issued on: October 13, 2016

Implemented on: November 1, 2017

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China**

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Foreword

GB/T 33014 "Road vehicles - Component test methods for electrical/electronic disturbances from narrowband radiated electromagnetic energy" consists of the following parts.

- Part 1.General;
- Part 2.Absorber-lined shielded enclosure;
- Part 3.Transverse electromagnetic (TEM) cell;
- Part 4.Bulk current injection (BCI);
- Part 5.Stripline;
- Part 7.Direct radio frequency (RF) power injection;
- Part 8.Magnetic field immunity;
- Part 9.Portable transmitter simulation;
- Part 10.Conduction immunity method for extended audio range;
- Part 11.Reverberation chamber.

This Part is Part 5 of GB/T 33014.

This Part is drafted in accordance with the rules given in GB/T 1.1-2009.

This Part uses the re-drafting method to modify and adopt ISO 11452-5:2002 "Road

vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 5.Stripline".

The technical differences between this Part and ISO 11452-5:2002 are as follows.

- PREPARE Clause 1 according to the provisions of GB/T 1.1-2009, and MOVE the contents that are not suitable for Clause 1 to Clause 4;
- REPLACE the reference standard ISO 11452-1 WITH GB/T 33014.1 modifying and adopting ISO 11452-1;
- ADD a supplementary instruction ($\epsilon \leq 1.4$) to insulating base and insulating support in 5.3.1 with reference to the relevant contents in other standards, to facilitate the standard operation;
- The artificial network in 5.3.1 of the original international standard references Annex C, which is modified to the equivalent Annex A of GB/T 33014.2-2016, to avoid duplication of the same content and the inconsistency of the original international standard
- ADD GB/T 33014.2-2016 in the normative references;
- For consistency in understanding and presentation with Part 1, I, II, III, IV, V of Table B.1 are changed to L1, L2, etc., and I, II, III, etc. are understood as status I, II, III, etc.

The following editorial changes have been made in this Part.

- DELETE the foreword and introduction of the original international standard;
- DELETE Annex C of the original international standard.

This Part is proposed by Ministry of Industry and Information Technology of the People's Republic of China.

This Part is under the jurisdiction of National Technical Committee of Auto Standardization (SAC/TC 114).

Drafting organizations of this Part. China Automotive Technology & Research Center, Suzhou Tai Site Electronic Technology Co., Ltd., Centre Testing International Group Co., Ltd., China Electronics Standardization Institute, Shenzhen Hsac Electronics Co.,

Ltd., Shanghai Volkswagen Automobile Co., Ltd., Changchun Automobile Testing Center, Passenger Car Company of Shanghai SAIC Motor Corporation Limited, Shenzhen BYD Automobile Co., Ltd., Huizhou Desay SV Automotive Co., Ltd., Mercedes-Benz (China) Automotive Sales Co., Ltd.

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Road vehicles - Component test methods for
electrical/electronic disturbances from narrowband
radiated electromagnetic energy - Part 5.Stripline

1 Scope

This Part of GB/T 33014 specifies the immunity test for electrical/electronic components to continuous electrical disturbances from narrowband radiated electromagnetic energy - stripline.

2 Normative reference

The following referenced documents are indispensable for the application of this document. For dated references, only the dated edition cited applies. For undated references, the latest edition of the referenced document (including all amendments) applies.

GB/T 33014.1 Road vehicles - Component test methods for electrical/electronic disturbances from narrowband radiated electromagnetic energy - Part 1.General (GB/T 33014.1-2016, ISO 11452-1.2005, MOD)

3 Terms and definitions

For the purposes of this document, the terms and definitions given in GB/T 33014.1 apply.

4 Test conditions

The useful frequency range of stripline is from 0.01 MHz to 400 MHz. The users shall specify the test severity level or levels over the frequency range. See annex B for suggested severity levels.

5 Test apparatus and instrumentation

A stripline (see annex A) shall set up a region of uniform electromagnetic fields. The stripline is to expose at least 1 m of the wiring harness under the test region (see Figure 1).

6 Test

Alternatively, the relation between field strength and net power may be determined by placing a calibrated field probe as close as possible to the centre of the stripline, with respect to the longitudinal and transverse axes under the active conductor.

Annex A

(informative)

Stripline design

A 50 ohm stripline construction is shown in Figures A.1 to A.4. Dimension l shall be at least 2 m. The ratio of b to h determines the characteristic impedance. If dimension b is greater than h , the characteristic impedance is calculated as Equation (A.1).

Annex B

(informative)

Function performance status classification (FPSC)

Suggested test severity levels and the frequency bands of this Part are given in Table A.1 and Table A.2, respectively.

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