Particular Criteria Governing Designated Testing Laboratories for Electromagnetic Compatibility

[Chronicle of Promulgation and Amendments]
Adopted and promulgated by the Bureau of Standards, Metrology and Inspection, Ministry of Economic Affairs on 1 May 2000.
Amended by the Bureau of Standards, Metrology and Inspection, Ministry of Economic Affairs on 10 July 2000.
Amended by the Bureau of Standards, Metrology and Inspection, Ministry of Economic Affairs on 17 May 2002.
Amended by the Bureau of Standards, Metrology and Inspection, Ministry of Economic Affairs on 16 June 2021.

1. In order to recognize and manage designated testing laboratories that conduct electromagnetic compatibility tests, these Criteria are established to ensure the competence of designated testing laboratories.

2. These Criteria apply to designated testing laboratories that conduct electromagnetic compatibility tests of commodities subject to inspection.

3. The assessment of designated testing laboratories shall be performed in accordance with the requirements of CNS 17025 or ISO/IEC 17025. Where these Criteria set out special requirements, the assessment shall also be performed in accordance with these Criteria.

4. A designated testing laboratory shall designate a senior technical staff or personnel responsible for ensuring technical effectiveness or higher to act as the report signatory.
   The report signatory shall have the right and responsibility for supervision of the test reports that he approves and other related operations.

5. A designated testing laboratory shall have appropriate protection facilities to ensure the safety of the testing personnel.

6. A designated testing laboratory shall have the required testing equipment to conduct tests according to the inspection standards or technical criteria for the specific testing category. (see Attachment)

7. Test records shall be retained for at least 8 years. The original test records shall be recorded in a manner that the content is not easy to be altered. Any changes or modifications made to the test records shall be conformed through an appropriate procedure.

8. A test report shall completely reflect the requirements of the inspection standards or technical criteria against which the test is performed. The contents of the test report and its attachments shall further include the following items:
   (1) Names and numbers that identify the testing equipment used in the tests;
   (2) List of emission sources and suppression EMC components;
   (3) Block circuit diagram;
   (4) Photographs of product appearance and important internal construction or components;
   (5) User instructions in Chinese; and
   (6) Product catalogue.

9. A designated testing laboratory shall be capable of performing the complete testing work by itself. Without a written approval by the BSMI, it may not perform testing at other sites or subcontract the whole or a part of the testing work to other testing laboratories.

Attachment:

Basic Requirements for Designated Testing Laboratories for EMC Testing Categories

Testing Category	Standard	Basic Requirements	Reference
I.Industrial, Scientific and Medical Instruments	CNS 13803 (2003) (CISPR 11) CNS 13804 (CISPR 19)	1A. Class A equipment: A 10-meter open area test site or semi-anechoic chamber is required. 1B. Class B equipment: A 10-meter open area test site or semi-anechoic chamber is required. 2. Conducted emission test site. 3. Documentation requirements: a. Introduction to the testing laboratory; b. Description of the test site; c. Geographic location and photographs; d. Equipment list; e. Data of test site attenuation characteristics; f. Shielding room layout and photographs; and g. Measurement data of the background noise. 4. Basic equipment: a. Test receiver; b. Line impedance simulating network (LISN); c. Antenna; and d. Signal generator (for ERP test).	CNS 13306-1 (CISPR 16-1) CNS 13306-2 (CISPR 16-2) ANSI 63.4
	CNS 13803 (2018) (CISPR 11)	1A. Class A equipment: A 3-meter or 10-meter open area test site or semi-anechoic chamber is required. 1B. Class B equipment: A 3-meter or 10-meter open area	

		test site or semi-anechoic chamber is required. 2. Conducted emission test site. 3. Documentation requirements: a. Introduction to the testing laboratory; b. Description of the test site; c. Geographic location and photographs; d. Equipment list; e. Data of test site attenuation characteristics; f. Shielding room layout and photographs; and g. Measurement data of the background noise. 4. Basic equipment: a. Test receiver; b. Line impedance simulating network (LISN); c. Current probe (CP) and capacitive voltage probe (CVP); d. Antenna; and e. Loop antenna.	
II. Information Technology Equipment	CNS 13438 (2006) (CISPR 22) / CNS 15936 (2016) (CISPR 32)	1A. Class A equipment: A 10-meter open area test site or semi-anechoic chamber is required. 1B. Class B equipment: A 10-meter open area test site or semi-anechoic chamber is required. 2. Conducted emission test site. 3. Documentation requirements: a. Introduction to the testing laboratory; b. Description of the test site; c. Geographic location and	CNS 13306-1 (CISPR 16-1) CNS 13306-2 (CISPR 16-2) ANSI 63.4

		photographs; d. Equipment list; e. Data of test site attenuation characteristics; f. Shielding room layout and photographs; and g. Measurement data of the background noise. 4. Basic equipment: a. Test receiver; b. Line impedance simulating network (LISN), asymmetric artificial network (ISN/AAN), current probe (CP) and capacitive voltage probe (CVP); and c. Antenna.	
III. Broadcast Receiver and Associated Equipment	CNS 13439 (2004) (CISPR 13) (TV set, Video recording or reproducing apparatus)	1. A 3-meter open area test site or semi-anechoic chamber is required. 2. Conducted emission test site. 3. Documentation requirements: a. Introduction to the testing laboratory; b. Description of the test site; c. Geographic location and photographs; d. Equipment list; e. Data of test site attenuation characteristics; f. Shielding room layout and photographs; and g. Measurement data of the background noise. 4. Basic equipment: a. Test receiver (150KHz – 1.75GHz); b. Spectrum analyzer (30MHz –	CNS 13306-1 (CISPR 16-1) CNS 13306-2 (CISPR 16-2) ANSI 63.4

		1.75GHz); c. Line impedance simulating network (LISN), asymmetric artificial network (ISN/AAN), current probe (CP) and capacitive voltage probe (CVP); d. Antenna; e. TV pattern generator; and f. Matching network (50Ω/75Ω)	
	CNS 13439 (2004) (CISPR 13) (Radio receiver)	1. A 3-meter open area test site or semi-anechoic chamber is required. 2. Conducted emission test site. 3. Documentation requirements: a. Introduction to the testing laboratory; b. Description of the test site; c. Geographic location and photographs; d. Equipment list; e. Data of test site attenuation characteristics; f. Shielding room layout and photographs; and g. Measurement data of the background noise. 4. Basic equipment: a. Test receiver (150KHz – 1GHz); b. Spectrum analyzer (30MHz – 1GHz); c. Line impedance simulating network (LISN), asymmetric artificial network (ISN/AAN), current probe (CP) and capacitive voltage probe (CVP); d. Antenna; e. Signal generator with function	

		for AM/FM modulation; f. CW signal generator; and g. Matching network (50Ω/75Ω).	
	CNS 15936 (2016) (CISPR 32) (FM receiver)	1. A 10-meter or 3-meter open area test site or semi-anechoic chamber is required. 2. Conducted emission test site. 3. Documentation requirements: a. Introduction to the testing laboratory; b. Description of the test site; c. Geographic location and photographs; d. Equipment list; e. Data of test site attenuation characteristics; f. Shielding room layout and photographs; and g. Measurement data of the background noise. 4. Basic equipment: a. Test receiver and/or spectrum analyzer; b. Line impedance simulating network (LISN), asymmetric artificial network (ISN/AAN), current probe (CP) and capacitive voltage probe (CVP); c. Antenna; d. TV pattern generator; e. Signal generator with function for AM/FM modulation; f. CW signal generator; and g. Matching network (50Ω/75Ω).	
	CNS 15936 (2016)	1A. Class A equipment: A 10-meter open area test site or	

	(CISPR 32) (exclude FM receiver)	semi-anechoic chamber is required. 1B. Class B equipment: A 10-meter open area test site or semi-anechoic chamber is required. 2. Conducted emission test site. 3. Documentation requirements: a. Introduction to the testing laboratory; b. Description of the test site; c. Geographic location and photographs; d. Equipment list; e. Data of test site attenuation characteristics; f. Shielding room layout and photographs; and g. Measurement data of the background noise. 4. Basic equipment: a. Test receiver and/or spectrum analyzer; b. Line impedance simulating network (LISN), asymmetric artificial network (ISN/AAN), current probe (CP) and capacitive voltage probe (CVP); c. Antenna; d. TV pattern generator; e. Signal generator with function for AM/FM modulation; f. CW signal generator; and g. Matching network (50Ω/75Ω).	
IV. Household Electrical Appliances	CNS 13783-1 (2004) (CISPR 14-1)	1. Absorbing clamp test site. 2. Conducted emission test site. 3. Documentation requirements:	CNS 13306-1 (CISPR 16-1) CNS 13306-2

		a. Introduction to the testing laboratory; b. Description of the test site; c. Geographic location and photographs; d. Equipment list; and e. Shielding room layout and photographs; 4. Basic equipment: a. Test receiver and spectrum analyzer; b. Line impedance simulating network; c. Discontinuous disturbance analyzer (optional); and d. Absorbing clamp.	(CISPR 16-2) ANSI C63.4
	CNS 13783-1 (2013) (CISPR 14-1)	1. Absorbing clamp test site. 2. A 10-meter open area test site or semi-anechoic chamber, or a 3-meter fully-anechoic chamber is required. 3. Conducted emission test site. 4. Documentation requirements: a. Introduction to the testing laboratory; b. Description of the test site; c. Geographic location and photographs; d. Equipment list; e. Data of test site attenuation characteristics; f. Shielding room layout and photographs; and g. Measurement data of the background noise. 5. Basic equipment: a. Test receiver; b. Line impedance simulating	

		network; c. Discontinuous disturbance analyzer; d. Absorbing clamp; e. Voltage probe; and f. Loop antenna system (LAS) or loop antenna. (apply to electromagnetic cooking appliances)	
V. Luminaries	CNS 14115 (2009) (CISPR 15)	1. Magnetic field test site. 2. Conducted emission test site. 3. Documentation requirements: a. Introduction to the testing laboratory; b. Description of the test site; c. Geographic location and photographs; d. Equipment list; and e. Shielding room layout and photographs; 4. Basic equipment: a. Test receiver and spectrum analyzer; b. Line impedance simulating network; and c. Triple-loop antenna.	CNS 13306-1 (CISPR 16-1) CNS 13306-2 (CISPR 16-2) ANSI C63.4
	CNS 14115 (2016) (CISPR 15)	1. A 10-meter open area test site or semi-anechoic chamber, or a CDN/CDNE test site is required. 2. Magnetic field test site. 3. Conducted emission test site. 4. Documentation requirements: a. Introduction to the testing laboratory; b. Description of the test site; c. Geographic location and photographs; d. Equipment list;	

		e. Data of test site attenuation characteristics; f. Shielding room layout and photographs; and g. Measurement data of the background noise. 5. Basic equipment: a. Test receiver; b. Line impedance simulating network; c. Loop antenna system (LAS); d. Antenna; e. Voltage probe (optional); and f. Asymmetric artificial network (ISN/AAN).	