

ICS 33.100.20



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

GB/T 17626.3-2023

**Electromagnetic compatibility - Testing and measurement
techniques - Part 3: Radiated, radio-frequency, electromagnetic
field immunity test
(English Translation)**

Issued on: December 28, 2023

Implemented on: July 1, 2024

Issued by: State Administration for Market Regulation

Table of Contents

Foreword...	5
Introduction...	10
1 Scope...	15
2 Normative references...	16
3 Terms, definitions and abbreviated terms...	16
3.1 Terms and definitions...	16
3.2 Abbreviated terms...	22
4 General...	23
5 Test levels and frequency ranges...	23
5.1 Selection of test level...	23
5.2 Test frequency ranges...	25
6 Test equipment...	26
6.1 Test instrumentation...	26
6.2 Description of the test facility...	27
6.3 Uniform field area (UFA)...	28
6.3.1 Characteristics of the UFA...	28
6.3.2 Constant field strength level setting method...	32
6.3.3 Constant power level setting method...	34
7 Test setup...	35
7.1 General...	35
7.2 Arrangement of table-top equipment...	36
7.3 Arrangement of floor-standing equipment...	39
7.4 Arrangement of wiring...	40
7.5 Arrangement of human body-mounted equipment...	41
8 Test procedure...	41
8.1 General...	41
8.2 Laboratory reference conditions...	42
8.2.1 General...	42
8.2.2 Climatic conditions...	42
8.2.3 Electromagnetic conditions...	42
8.3 Execution of the test...	42
8.4 Step sizes...	44

9 Evaluation of test results...	44
10 Test report...	45

Foreword

This document was 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 is Part 3 of GB/T(Z) 17626 "Electromagnetic compatibility - Testing and measurement techniques". The following parts of GB/T(Z) 17626 have been issued.

- GB/T 17626.1-2006, Electromagnetic compatibility -- Testing and measurement techniques -- Overview of immunity tests
- GB/T 17626.2-2018, Electromagnetic compatibility -- Testing and measurement techniques -- Electrostatic discharge immunity test
- GB/T 17626.3-2023, Electromagnetic compatibility -- Testing and measurement techniques -- Part 3.Radiated, radio-frequency, electromagnetic field immunity test
- GB/T 17626.4-2018, Electromagnetic compatibility -- Testing and measurement techniques -- Electrical fast transient/burst immunity test
- GB/T 17626.5-2019, Electromagnetic compatibility -- Testing and measurement techniques -- Surge immunity test
- GB/T 17626.6-2017, Electromagnetic compatibility -- Testing and measurement techniques -- Immunity to conducted disturbances, induced by radio-frequency fields
- GB/T 17626.7-2017, Electromagnetic compatibility -- Testing and measurement techniques -- General guide on harmonics and inter-harmonics measurements and instrumentation, for power supply systems and equipment connected thereto
- GB/T 17626.8-2006, Electromagnetic compatibility (EMC) -- Part 4-8.Testing and measurement techniques -- Power frequency magnetic field immunity test

- GB/T 17626.9-2011, Electromagnetic compatibility -- Testing and measurement techniques -- Pulse magnetic field immunity test
- GB/T 17626.10-2017, Electromagnetic compatibility -- Testing and measurement techniques -- Damped oscillatory magnetic field immunity test
- GB/T 17626.11-2023, Electromagnetic compatibility -- Testing and measurement techniques -- Part 11.Voltage dips, short interruptions and voltage variations immunity tests for equipment with input current up to 16 A per phase
- GB/T 17626.12-2023, Electromagnetic compatibility -- Testing and measurement techniques -- Part 12.Ring wave immunity test
- GB/T 17626.13-2006, Electromagnetic compatibility (EMC) -- Testing and measurement techniques -- Harmonics and inter-harmonics including mains signaling at a.c. power port low frequency immunity test
- GB/T 17626.14-2005, Electromagnetic compatibility -- Testing and measurement techniques -- Voltage fluctuation immunity test
- GB/T 17626.15-2011, Electromagnetic compatibility -- Testing and measurement techniques -- Flicker meter -- Functional and design specifications
- GB/T 17626.16-2007, Electromagnetic compatibility -- Testing and measurement techniques -- Test for immunity to conducted, common mode disturbances in the frequency range 0 Hz to 150 kHz
- GB/T 17626.17-2005, Electromagnetic compatibility -- Testing and measurement techniques -- Ripple on d.c. input power port immunity test
- GB/T 17626.18-2016, Electromagnetic compatibility -- Testing and measurement techniques -- Damped oscillatory wave immunity test
- GB/T 17626.19-2022, Electromagnetic compatibility -- Testing and measurement techniques -- Part 19.Test for immunity to conducted, differential mode disturbances and signaling in the frequency range 2 kHz to 150 kHz at a. c. power ports
- GB/T 17626.20-2014, Electromagnetic compatibility -- Testing and measurement

techniques -- Emission and immunity testing in transverse electromagnetic (TEM) waveguide

- GB/T 17626.21-2014, Electromagnetic compatibility -- Testing and measurement techniques -- Reverberation chamber test methods

- GB/T 17626.22-2017, Electromagnetic compatibility (EMC) -- Testing and measurement techniques -- Radiated emissions and immunity measurements in fully anechoic rooms (FARs)

- GB/T 17626.24-2012, Electromagnetic compatibility -- Testing and measurement techniques -- Test methods for protective devices for HEMP conducted disturbance

- GB/T 17626.27-2006, Electromagnetic compatibility (EMC) -- Testing and measurement techniques -- Unbalance immunity test

- GB/T 17626.28-2006, Electromagnetic compatibility (EMC) -- Testing and measurement techniques -- Variation of power frequency immunity test

- GB/T 17626.29-2006, Electromagnetic compatibility (EMC) -- Testing and measurement techniques -- Voltage dips short interruptions and voltage variations on d.c. input power port immunity tests

- GB/T 17626.30-2023, Electromagnetic compatibility -- Testing and measurement techniques -- Part 30.Power quality measurement methods

- GB/T 17626.31-2021, Electromagnetic compatibility -- Testing and measurement techniques -- Part 31.AC mains ports broadband conducted disturbance immunity test

- GB/Z 17626.33-2023, Electromagnetic compatibility -- Testing and measurement techniques -- Part 33.Measurement methods for high-power transient parameters

- GB/T 17626.34-2012, Electromagnetic compatibility -- Testing and measurement techniques -- Voltage dips, short interruptions and voltage variations immunity tests for equipment with mains current more than 16 A per phase

- GB/T 17626.39-2023, Electromagnetic compatibility -- Testing and measurement