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

GB/T 34579-2017

**Methods of measurement and limits for radiated disturbances
from plasma display panel equipment in the frequency range
150 kHz to 30 MHz
(English Translation)**

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Foreword

This Standard was drafted in accordance with the rules in GB/T 1.1-2009.

This Standard adopts the re-drafting law in the modification and adoption of IEC/PAS 62825:2013 Methods of Measurement and Limits for Radiated Disturbances from Plasma Display Panel TVs in the Frequency Range 150 kHz to 30 MHz.

In comparison with IEC/PAS 62825:2013, the technical differences and the causes for these differences are as follows:

---In terms of Normative References, this Standard adjusts the technical differences, so as to adapt to the technical conditions of our country. The adjustments are intensively reflected in Chapter 2 "Normative References". See the specific adjustments below:

lambda CISPR 32 is modified into reference without year number (see Chapter 1);

lambda The reference of GB 3174 is added (see 5.5);

lambda The reference of GB 4824-2013 is added (see Table 1).

---The scope of application is expanded from plasma TVs to plasma display panel equipment;

---The NOTE in Table 1 is modified into the main text;

---5.5 "EUT Working Status" is rewritten.

This Standard was proposed by and shall be under the jurisdiction of National Technical Committee 79 on Radio Jamming of Standardization Administration of China (SAC/TC 79).

The drafting organizations of this Standard: The 3rd Research Institute of China Electronics Technology Group Corporation; Xiamen GOPRO Guangpu Electronics Co., Ltd.

1 Scope

This Standard specifies the methods of measurement and limits for radiated disturbances from plasma display panel equipment 150 kHz ~ 30 MHz.

This Standard is applicable to plasma display panel equipment with a visible display area of 1 m or a larger diagonal intended for use in residential or commercial environments within the scope of GB/T 13837-2012 or CISPR 32.

The corresponding frequency range of the radiofrequency radiated disturbances described in this Standard is 150 kHz ~ 30 MHz. This Standard specifies corresponding limits and measurement methods for the evaluation of radiofrequency radiated disturbances.

The limit requirements specified in this Standard are the basic requirements of EMC.

The requirements aim at avoiding affecting the radio reception in the 150 kHz ~ 30 MHz frequency range of the area when the display panel equipment are working.

While adopting this Standard, other regulations on EMC radiated emission shall be implemented in accordance with GB/T 13837-2012 and CISPR 32. This Standard is a supplement to the requirements of other related standards on electromagnetic compatibility.

The purposes of this Standard are as follows:

a) Establish supplementary requirements to properly protect the frequency spectrum in the frequency range of 150 kHz ~ 30 MHz, so that the expected radio reception in this frequency range can be normally used;

b) In order to ensure the reproducibility of measurement and the repeatability of measurement results, specific measurement procedures are specified.

2 Normative References

The following documents are indispensable to the application of this document. In terms of references with a specified date, only versions with a specified date are applicable to this document. In terms of references without a specified date, the latest version (including all the modifications) is applicable to this document.

GB 3174 Characteristics of PAL-D Television Broadcasting System

GB/T 4365 Electrotechnical Terminology - Electromagnetic Compatibility (GB/T 4365-2003, IEC 60050 (161): 1990 + AMD 1: 1997, IDT)

GB 4824-2013 Industrial, Scientific and Medical Equipment - Radio-frequency Disturbance Characteristics - Limits and Methods of Measurement (CISPR 11: 2010, IDT)

GB/T 6113.101-2016 Specification for Radio Disturbance and Immunity Measuring Apparatus and Methods of Measurement - Part 1-1: Radio Disturbance and Immunity Measuring Apparatus - Measuring Equipment (CISPR 16-1-1: 2010, IDT)

GB/T 6113.104-2016 Radio Disturbance and Immunity Measuring Apparatus and Methods - Part 1-4: Radio Disturbance and Immunity Measuring Apparatus - Radiated Disturbance Measuring Antenna and Test Site (CISPR 16-1-4: 2010, IDT)

GB/T 13837-2012 Sound and Television Broadcast Receivers and Associated Equipment - Radio Disturbance Characteristics - Limits and Methods of Measurement (IEC/CISPR 13:2009, MOD)

CISPR 32 Electromagnetic Compatibility of Multimedia Equipment - Emission Requirements

3 Terms and Definitions

What is defined in GB/T 4365 and GB/T 13837-2012, and the following terms and definitions are applicable to this Standard.

3.1 Boundary of the EUT

Boundary of the EUT refers to the smallest imaginary circle surrounding the equipment under test (including all connecting cables).

4.1 Overview

The equipment specified in the scope of this Standard shall be measured at a standardized radiation test site. Open fields or semi-anechoic chambers are preferred (although these sites are verified in the frequency range of 30 MHz ~ 1 GHz in accordance with GB/T 6113.104-2016).

The measuring equipment and methods of measurement are specified in Chapter 5

6.1 Measurement Layout

The EUT shall be placed on a non-metallic test bench that is 80 cm above the grounding plane. The distance between the center of the loop antenna and the boundary of the equipment under test shall be 3 m, as it is shown in Figure 1.

When the EUT is equipped with a dedicated grounding terminal, use the shortest possible grounding wire to ground this grounding terminal. When the EUT is not equipped with a dedicated grounding terminal, it shall be tested under normal conditions of connection, for example, grounding through a power line or a coaxial signal line.

6.2 Measurement Procedures

In the axial and parallel directions of the two antennas, respectively measure the radiated emission. The loop of the antenna defines a plane, and a horizontal line shall simultaneously pass through the center line of the antenna and the EUT. When the line connecting the horizontal line and the EUT is in the plane of the antenna loop, the antenna direction at this moment is defined as the parallel direction. When the line connecting the horizontal line and the EUT is perpendicular to the plane of the antenna loop, the antenna direction at this moment is defined as the axial direction. The two antenna directions are shown in Figure 2.