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

GB/T 16828-2021

Replacing GB/T 16828-2007

**Bar code for commodity - Global location numbering and bar
code marking**

商品条码 参与方位置编码与条码表示

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Foreword

This Document was drafted as per the rules specified in GB/T 1.1-2020 Directives for Standardization - Part 1: Rules for the Structure and Drafting of Standardizing Documents. This Document replaced GB/T 16828-2007 Bar Code for Commodity - Global Location Number and Symbol Marking. Compared with GB/T 16828-2007, the major technical changes of this Document are as follows, besides the structural adjustments and editorial modifications:

- Change the definition of "Global location number" (see 3.1.1 of this Edition; 3.1 of 2007 Edition);
 - Add the abbreviations (see 3.2 of this Edition);
 - Add two situations for the code structure; add the compiling rules (see 4.2 of this Edition);
 - Change the management mode instruction for the global location number (see 4.2 of this Edition; Clause 5 of 2007 Edition);
 - Add the content of application identifier (see Clause 5 of this Edition);
 - Add the relevant content for the expressed by QR code (see Clause 5 of this Edition);
 - Add the application example of the global location number (see Appendixes B and C).
- This Document refers to the relevant contents of GS

1 Application Specification Edition 18. 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 and shall be under the jurisdiction of National Technical Committee for Standardization of Logistics Information Management (SAC/TC 267). Drafting organizations of this Document: GS

1 Scope

GB/T 16828-2021 is the Chinese national standard on bar code for commodity - global location numbering and bar code marking, in the field of information technology. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 21 May 2021 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 December 2021. Classification: ICS 35.040, CCS A24. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This Document specifies the encoding, bar code representation and application of the global location number. This Document is applicable to the identification of the global location, automatic identification and data capture, and electronic data sharing, etc.

2 Normative References

The following documents are essential to the application of this Document. For the dated documents, only the versions with the dates indicated are applicable to this Document; for the undated documents, only the latest version (including all the amendments) is applicable to this Document.

GB 12904 Bar Code for Commodity - Retail Commodity Numbering and Bar Code Marking

GB/T 12905 Bar Code Terminology

GB/T 15425 Bar Code for Commodity - 128 Bar Code

GB/T 16986 Bar Code for Commodity - Application Identifier

3 Terms, Definitions and Abbreviations

3.1 Terms and definitions For the purposes of this Document, the terms and definitions given in GB/T 12905 and the following apply.

3.1.1 Global location number A code that uniquely identifies the participants and locations involved in supply chain activities. NOTE 1: Participant's location code is also called global location number.

Appendix A

(Normative) Calculation Method of the Check Code A.1 Calculation method The check code uses 10 as the modulus, 3 and 1 as the weighting factors, and is calculated according to the following steps:

- Step 1: Number the 13 digits (including the check code) sequentially from right to left, starting from 1;
- Step 2: Add up the values at all positions with even numbers;
- Step 3: multiply the result of the Step-2 by the value 3;
- Step 4: Starting from the sequence number 3, add up the values at all positions with odd sequence numbers;
- Step 5: Add up the result of the Step-3 to the result of the Step-4;