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**Information technology - Radio frequency identification for item
management - Implementation guidelines - Part 1: Passive UHF
RFID labels**

信息技术 用于物品管理的射频识别 实现指南 第1部分：无源超高频RFID标签

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Foreword

GB /Z 36442 "Guidelines for the Implementation of Radio Frequency Identification for Information Technology for Article Management" is intended to be divided into the following sections.

--- Part 1. Passive UHF RFID tags;

--- Part 3. Implementation and operation of UHF RFID reader system in logistics applications. This part is the first part of GB /Z 36442. This part is drafted in accordance with the rules given in GB/T 1.1-2009. Please note that some of the contents of this document may involve patents. The issuing organization of this document is not responsible for identifying these patents. This part is proposed and managed by the National Information Technology Standardization Technical Committee (SAC/TC28). This section drafted by: China Electronics Technology Standardization Institute, Shenzhen Yuanwang Valley Information Technology Co., Ltd., China Articles Code Center, Institute of Telecommunications Science, Ministry of Industry and Information Technology, Shanghai Baoxin Software Co., Ltd. The main drafters of this section. Jin Qian, Li Li, Feng Jing, Wang Wenfeng, Wu Yueshan, Yang Jun.

RFID devices, especially RFID devices operating in the UHF band (800/900MHz), whose performance is subject to RFID tag junctions The structure, the position on the item, and

the radio frequency characteristics of the attached item are strongly influenced. Therefore, compared to traditional barcode labels, RFID The selection and placement of labels should be more careful. This part of GB /Z 36442 provides transport units and pallets for the transport and distribution of commercially packaged goods (see Figure 2, Layer 2 and Background, references and practical knowledge related to the selection and application of passive UHF RFID tags in Layer 3). Passive RFID tags or embedded or embedded inlays on traditional labels, tickets and signs to enable the use of RFID tags on transport units and pallets. The main points of this section are as follows:

- a) Passive UHF RFID tags can be separated from video-ready tags and machine-readable tags or other identification information on the transport unit or pallet Placement. However, in application, it is very important to have both of the above on the transport unit or tray.
- b) Enhance the reliability of passive UHF RFID tags to reduce missed reading rates. Figure 1 RFID logistics application level description Information technology for radio frequency identification of item management Implementation Guide Part 1. Passive UHF RFID tag

1 Scope

GB/Z 36442.1-2018 is the Chinese national standard on information technology - radio frequency identification for item management - implementation guidelines - part 1:passive uhf rfid labels, in the field of information technology. The /Z suffix marks it as a guiding technical document: it does not prescribe requirements that can be certified against, but sets out the technique, the method or the state of the art that the standards bodies recommend following. It was issued on 7 June 2018 by the State Administration for Market Regulation; Standardization Administration of China. As a guiding technical document it carries no separate date of entry into force: it applies from publication. Classification: ICS 35.040, CCS L64. 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 part of GB /Z 36442 gives the choice of passive UHF RFID tags (hereinafter referred to as "RFID tags") as well as media and stickiness. Guidelines for Mixtures, Surface Layers, and Ink Selection; Techniques for mitigating electrostatic discharge to mitigate damage to RFID tags. This section gives the transport of boxes and containers, pallet/unit cargo and non-removable items and cannot be shipped in pallets. A guide to placing and attaching RFID tags to items. This section provides guidance for RFID tags and their packaging for use in logistics applications.

2 Normative references

The following documents are indispensable for the application of this document. For dated

references, only dated versions apply to this article. Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 17626.2-2006 Electromagnetic compatibility test and measurement technology
Electrostatic discharge immunity test (IEC 61000-4-2.2001, IDT)

GB/T 19946-2005 1D barcode and 2D barcode for packaging, shipping and receiving labels
(ISO 15394.2000, IDT)

GB/T 29768-2013 Information Technology Radio Frequency Identification 800/900MHz Air
Interface Protocol GB /Z 36442.3 Information technology - Radio frequency identification
implementation guide for item management - Part 3. UHF RFID reading and writing
Implementation and operation of the system in logistics applications ISO /

IEC 15434 Information Technology Automatic Identification and Data Acquisition
Technology Large-capacity Automatic Identification Data Acquisition Media (Informa-
tion technology-Automatic identification and data capture techniques-Syntax for high-capacity AD
C Media) ISO / IEC 15459-

5 Information technology - Unique identifiers - Part 5. s.

[Information technology-Unique identifiers-Part 5. Unique identifier for returnable transport items
(RTIs)]

ISO 17364 RFID Supply Chain Application Recyclable Transportation Goods (RTI)

[Supply chain applications of RFID-Re- Turnable transport items (RTIs)] ISO /

IEC 18046 (all parts) Information technology Radio frequency identification equipment
performance test method (Information technology-
Radio frequency identification device performance test methods) 3 terms and definitions,
abbreviations

3.1 Terms and definitions The following terms and definitions apply to this document.