

ICS 25.040

CCS N 10



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

GB/T 29618.5231-2018

**Field device tool (FDT) interface specification -- Part 5231:
Communication implementation for common language
infrastructure -- IEC 61784 CP 3/1 and CP 3/2**

Issued on: September 17, 2018

Implemented on: April 1, 2019

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

Foreword

Introduction

1 Scope

2 Normative references

3 Terms, definitions, symbols, abbreviations and conventions

3.1 Terms and definitions

Foreword

GB/T 29618 "Field Device Tool (FDT) Interface Specification" is temporarily divided into the following parts.

- Part 1. Overview and guidelines;
- Part 2. Concepts and detailed descriptions;
- Part 301. Communication profile integration FF fieldbus specification;
- Part 302. Communication Profile Integration General Industrial Agreement;
- Part 306. Communication profile integration INTERBUS fieldbus specification;
- Part 309. Communication profile integration of addressable remote sensor high-speed channel;
- Part 315. Communication profile integration MODBUS fieldbus specification;
- Part 41. Object model profile integration common object model;
- Part 42. Object model profile integration common language infrastructure;
- Part 515. General object model communication implementation MODBUS fieldbus specification;
- Part 511. Communication of the general object model to implement the FF fieldbus specification;
- Part 512. Common object model communication implementation of general industrial protocols;
- Part 516. Communication of the universal object model to implement the INTERBUS fieldbus specification;
- Part 519. Communication implementation of the generic object model IEC 61784CPF9;

- Part 5115. Communication implementation of the general object model IEC 61784CPF15;
- Part 521. Communication of the common language infrastructure to implement the FF fieldbus specification;
- Part 522. Common language infrastructure communication implementation of general industrial protocols;
- Part 5231. Communication implementation of common language infrastructure IEC 61784CP3/1 and CP3/2;
- Part 5232. Communication implementation of common language infrastructure IEC 61784CP3/4, CP3/5 and CP3/6;
- Part 529. Communication implementation of the common language infrastructure IEC 61784CPF9;
- Part 5215. Communication implementation of the common language infrastructure IEC 61784CPF15;
- Part 61. Device Type Manager Style Guide for the Common Object Model;
- Part 62. Field Device Tool (FDT) Style Guide.

This part is part 5231 of GB/T 29618.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This section uses the translation method equivalent to IEC /T R62453-52-31..2017 "Field Device Tool (FDT) Interface Specification Part 52-31

Points. Communication of the common language infrastructure implements IEC 61784CP3/1 and CP3/2.

The documents of our country that have a consistent correspondence with the international documents referenced in this part are as follows.

- GB/T 15969.3-2017 Programmable controllers Part 3. Programming languages (IEC 61131-3.2013, IDT);
- GB/T 16657.2-2008 Industrial Communication Network Fieldbus Specification Part 2. Physical Layer Specification and Service Definition
(IEC 61158-2.2007, IDT);
- GB/T 20540.1-2006 Measurement and control of digital data communication Industrial control system with fieldbus type 3. PRO-FIBUS Specification Part 1. Overview and Guidelines (IEC 61158-1type 3.2003, MOD);

---GB/T 20540.2-2006 Measurement and control of digital data communication Industrial control systems with fieldbus type 3. PRO-

FIBUS Specification Part 2. Physical Layer Specification and Service Definition (IEC 61158-2type 3.2003, MOD);

---GB/T 20540.3-2006 Measurement and Control Digital Data Communication Industrial Control System Fieldbus Type 3. PRO-

FIBUS specification Part 3. Data link layer service definition (IEC 61158-3type 3.2003, MOD);

---GB/T 20540.4-2006 Measurement and control of digital data communication Industrial control systems with fieldbus type 3. PRO-

FIBUS specification Part 4. Data link layer protocol specification (IEC 61158-4type 3.2003, MOD);

---GB/T 20540.5-2006 Measurement and control of digital data communication Industrial control systems with fieldbus type 3. PRO-

FIBUS specification Part 5. Application layer service definition (IEC 61158-5type 3.2003, MOD);

---GB/T 20540.6-2006 Measurement and control of digital data communication Industrial control systems with fieldbus type 3. PRO-

FIBUS specification Part 6. Application layer protocol specification (IEC 61158-6 TYPE 3.2003, MOD);

---GB /Z 20541.1-2006 Measuring and controlling digital data communication Fieldbus type 10 for industrial control systems.

PROFINET specification Part 1. Application layer service definition (IEC 61158-5type10.2003, MOD);

---GB /Z 20541.2-2006 Measurement and control of digital data communication industry control system fieldbus type 10.

PROFINET specification Part 2. Application layer protocol specification (IEC 61158-6type 10.2003, MOD);

---GB/T 25105.1-2014 Industrial Communication Network Fieldbus Specification Type 10. PROFINETIO Specification

Part 1. Application layer service definition (IEC 61158-5-10.2010, MOD);

---GB/T 25105.2-2014 Industrial Communication Network Fieldbus Specification Type 10. PROFINETIO Specification

Part 2. Application Layer Protocol Specification (IEC 61158-6-10.2010, MOD);

---GB /Z 26157.1-2010 Measurement and Control Digital Data Communication Industrial Control System Fieldbus Type 2. Con-

trolNet and EtherNet/IP Specification Part 1. General Description (IEC 61158.2003 TYPE 2, MOD);

---GB /Z 26157.2-2010 Measurement and control of digital data communication Industrial control system fieldbus type 2. Con-

trolNet and EtherNet/IP Specification Part 2. Physical Layer and Media (IEC 61158.2003 TYPE 2, MOD);

---GB /Z 26157.3-2010 Measurement and Control Digital Data Communication Industrial Control System Fieldbus Type 2. Con-

trolNet and EtherNet/IP Specification Part 3. Data Link Layer (IEC 61158.2003 TYPE 2, MOD);

---GB /Z 26157.4-2010 Measurement and control of digital data communication Industrial control system fieldbus type 2. Con-

trolNet and EtherNet/IP Specification Part 4. Network Layer and Transport Layer (IEC 61158.2003 TYPE 2, MOD);

---GB /Z 26157.5-2010 Measurement and Control Digital Data Communication Industrial Control System Fieldbus Type 2. Con-

trolNet and EtherNet/IP Specification Part 5. Data Management (IEC 61158.2003 TYPE 2, MOD);

---GB /Z 26157.6-2010 Measurement and Control Digital Data Communication Industrial Control System Fieldbus Type 2. Con-

trolNet and EtherNet/IP specification Part 6. Object model (IEC 61158.2003 TYPE 2, MOD);

---GB /Z 26157.7-2010 Measurement and Control Digital Data Communication Industrial Control System Fieldbus Type 2. Con-

trolNet and EtherNet/IP Specification Part 7. Equipment Profiles (IEC 61158.2003 TYPE 2, MOD);

---GB /Z 26157.8-2010 Measurement and Control Digital Data Communication Industrial Control System Fieldbus Type 2. Con-

trolNet and EtherNet/IP Specification Part 8. Electronic Data Sheet (IEC 61158.2003 TYPE 2, MOD);

---GB /Z 26157.9-2010 Measurement and control of digital data communication Industrial