

ICS 33.200
CCS M 50



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

GB/T 30290.2-2025

Replacing GB/T 30290.2-2013

**BeiDou satellite positioning vehicle information service system
(VISS) - Part 2: Information protocol for vehicle terminal and
service center**

北斗卫星定位车辆信息服务系统 第2部分：车载终端与服务中心信息交换协议

Issued on: October 5, 2025

Implemented on: February 1, 2026

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

1.Scope	1
2 Normative References	1
3.Terms and Definitions	1
4.Symbols and Abbreviations	2
4.1 Symbol	2
4.2 Abbreviations	2
5.Reference Model	2
6.Protocol Description	3
6.1 Communication Protocol Structure	3
6.2 Data Types	3
6.3 Time Format	4
6.4 Transmission Rules	4
6.5 Transmission Process	4
8.1 VT General Response	8
8.2 VISC General Response	8
8.3 VT Registration Request	8
8.4 VT Registration Response	9
8.5 VT Login Request	9
8.6 VT Login Response	10
8.7 VT Heartbeat Request	10
8.8 VT heart rate response	10
8.9 VT Parameter Query Command	10
8.10 VT parameter query response	12
8.11 VT Parameter Setting Command	12
8.12 VT Parameter Setting Response	13
8.13 Location Query Command	13
8.14 Location query response	13
8.15 Position Tracking Command	14
8.16 Location Tracking Response	15
8.17 Location reporting request	15
8.18 Location reporting response	15
8.19 Vehicle Information Data Reporting Request	15

8.20 Vehicle Information Data Reporting Response	16
8.21 Event Data Reporting Request	16
8.22 Event Data Reporting Response	18
8.23 Emergency rescue alarm request	18
8.24 Emergency Rescue Alarm Response	19
8.25 Notification Instruction	19
8.26 Notification and Response	20
8.27 VT Control Command	20
8.28 VT Control Response	20
8.29 Vehicle Control Command	20
8.30 Vehicle Control Response	21
8.31 Fault Code Reporting Request	21
8.32 Fault Code Reporting Response	22
8.33 Fault Detection Command	22
8.34 Fault Detection Response	22
8.35 Fault Code Clearing Command	23
8.36 Fault Code Clearance Response	23
8.37 Security Chip Information Filing Request	24
8.38 Security Chip Information Filing Response	24
8.39 Security Incident Reporting Request	24
8.40 Security Incident Reporting and Response	25
8.41 Voice Acquisition Command	25
8.42 Voice Acquisition and Response	25
8.43 Setting Area and Route Commands	25
8.44 Setting up area and route response	26
8.45 Delete area and route command	26
8.46 Delete area and route response	27
8.47 Area and Route Deviation Alert Instruction	27
8.48 Area and Route Deviation Alert Response	27
8.49 Area and route deviation alarm request	27
31 Appendix B (Informative) Message Service Identifier	32

Foreword

This document is in accordance with GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting is scheduled. This document is Part 2 of GB/T 30290 "BeiDou Satellite Positioning Vehicle Information Service System". GB/T 30290 has been published. The following section.

1. Functional Description;

2. Information Exchange Protocol between Vehicle Terminal and Service Center;

3. Information Security Specifications;

4. Performance Requirements and Test Methods for Vehicle-Mounted Information Terminals;

5. Recorder Performance Requirements and Test Methods;

6. Performance requirements and test methods for emergency rescue terminals. This document replaces GB/T 30290.2-2013 "Satellite Positioning Vehicle Information Service System - Part

2. Vehicle Terminal and Service Center" Compared with GB/T 30290.2-2013, the main technical changes in the "Information Exchange Protocol" are as follows, apart from structural adjustments and editorial modifications.

a) Added the terms "message," "business ID," "terminal ID," "business data," "big-endian mode," and "inflection point compensation" and their definitions (see 3.1). 3.2, 3.3, 3.4, 3.5, 3.6);

b) The terms "central center," "branch center," "location information type," "real-time location status," "real-time location refresh parameters," and "real-time positioning" have been removed. "Location validity period", "Real-time location time", "Number of real-time location records", "Real-time location cycle", "Real-time location distance" and "Real-time location duration" "Gap" and its definition (see sections 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.10, and

3.11 in the.2013 edition);

c) Added symbol descriptions such as GM and UM (see 4.1), and added CAN, CoAP, IP, MQTT, TCP, TTS, UDP, etc. Abbreviations such as VIN, VISC, VISSN, and VT (see 4.2);

d) The term "System Reference Model" was changed to "Reference Model," and the corresponding content was modified (see Chapter 5, Chapter 5 of the.2013 edition);

1 Scope

GB/T 30290.2-2025 is the Chinese national standard covering the protocol between the box in the truck and the centre - the message set and its encoding, the registration and authentication, the position reporting strategy and the buffering when the link is down, and the commands the centre may send back. At 20,000 words. Part 2 of the series. It replaces GB/T 30290.2-2013, in force from 1 February 2026. Issued on 5 October 2025, it has been

in force since 1 February 2026, replacing GB/T 30290.2-2013.

This document specifies the information exchange protocol between the vehicle-mounted terminal and the information service center in the BeiDou satellite positioning vehicle information service system. The agreement includes a reference model, protocol description, message structure, and business data format. This document applies to applications using BeiDou satellite positioning technology, employing public or dedicated mobile communication networks, and possessing vehicle information. The design, development, and application of communication protocols in the service center's information processing system. This involves utilizing other positioning technologies, employing other communication networks, and possessing... The design, development, and application of communication protocols in the information processing system of the vehicle information service center can be used as a reference.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 30290.1-2025 Beidou Satellite Positioning Vehicle Information Service System - Part

3 Terms and Definitions

GB/T 30290.1-2025, GB/T 30290.3-2025, GB/T 30290.4, GB/T 30290.5 and GB/T 30290.6 define... The following terms and definitions apply to this document.

3.1 message The vehicle terminal and the information service center generate a set of byte streams that can be recognized by both parties during communication and interaction.

3.2 Business ID The identifier field in the message is used to identify the type of business the message represents.

5 Recorder Performance Requirements and Test Methods

GB/T 30290.6 Beidou Satellite Positioning Vehicle Information Service System - Part

6 Performance Requirements and Test Methods for Emergency Rescue Terminals

ISO 15765 (all parts) Diagnostic communication on Road Vehicle Controller Area Network (DoCAN) [Roadvehicles-Diag-