

APTER POWER PRODUCT MANUAL

6ES7521-1BH00-0AB0

SIMATIC S7-1500 SM 521 16-Channel Digital Input HF Module

The Siemens 6ES7521-1BH00-0AB0 is an S7-1500 SM 521 high-feature digital input module with sixteen 24 V DC channels. It acquires standard input states and can use two channels for counter functions up to the published frequency.

The HF feature set supports configurable input delays, diagnostics, hardware interrupts, and fast count acquisition for demanding machine and process applications.

Manufacturer	Siemens
Prepared by	Apter Power
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APTER POWER SALES TEAM

INDUSTRIAL AUTOMATION PRODUCT SUPPORT

Sixteen HF Inputs with Diagnostics and Two Fast Counters.

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SCAN FOR PRODUCT & QUOTE
6ES7521-1BH00-0AB0

1. Product Overview and Identity

The Siemens 6ES7521-1BH00-0AB0 is an S7-1500 SM 521 high-feature digital input module with sixteen 24 V DC channels. It acquires standard input states and can use two channels for counter functions up to the published frequency.

The HF feature set supports configurable input delays, diagnostics, hardware interrupts, and fast count acquisition for demanding machine and process applications.

Model Configuration

Field	Verified information
Complete model	6ES7521-1BH00-0AB0
Manufacturer	Siemens
Product description	SIMATIC S7-1500 SM 521 16-Channel Digital Input HF Module

Key Features

- Exact 6ES7521-1BH00-0AB0 identity retained
- Manufacturer-source data separated from unconfirmed values
- SM 521 DI 16x24 V DC HF
- System context: SIMATIC S7-1500
- Model-specific lifecycle and installation guidance

2. Technical Specifications

Only manufacturer-confirmed information is stated. Values absent from the named Siemens source are marked for nameplate or document verification.

Parameter	Verified value
Module	SM 521 DI 16x24 V DC HF
Digital inputs	16 in one group
Counter-capable inputs	2
Counter frequency	Up to 6 kHz
Counter width	32 bit
Input delay	0.05 to 20 ms configurable
IEC input type	IEC 61131 Type 3
Diagnostics	Supported
Front connector	Ordered separately
Net weight	Approx. 0.277 kg

Verification Note

Use the complete 6ES7521-1BH00-0AB0 identifier. Siemens lists 6ES7521-1BH00-0AB0 as a PM300 active product. Values not published in the cited Siemens source are intentionally not inferred.

3. Functions, Applications and Components

Core Functions

- The HF feature set supports configurable input delays, diagnostics, hardware interrupts, and fast count acquisition for demanding machine and process applications.
- Maintains the documented SIMATIC S7-1500 system role for this exact article number.
- Provides an exact reference for engineering, maintenance, and quotation review.

Application Areas

Application	System role
Diagnostic digital input	Detect field-wire and channel conditions through the HF feature set.
Fast event counting	Use two channels for pulse counts up to 6 kHz.
Machine control	Acquire sixteen inputs with configurable filters and interrupts.

Compatible Components

- SIMATIC S7-1500 CPU and rack configuration supporting SM 521 HF
- 40-pin front connector specified for the module
- 24 V DC sensors, counter sources, and TIA Portal project settings within the limits

Lifecycle Status

Siemens lists 6ES7521-1BH00-0AB0 as a PM300 active product.

4. Installation Precautions

- Order and wire the correct front connector
- Configure input delay and counter use in TIA Portal
- Verify 24 V DC group potential
- Back up the hardware project
- Test diagnostics and interrupts during commissioning

STOP - Verify before installation

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Use the physical nameplate and current Siemens documents as the controlling records.

5. Official Source and Use Notice

Official source

Siemens Industry Mall technical data for 6ES7521-1BH00-0AB0.

Apter Power product page

<https://www.apterpower.com/Siemens/6ES7521-1BH00-0AB0>

Use Notice

This is an original Apter Power product-specific reference prepared from the Siemens source named above. It is not a Siemens publication and does not replace the original data sheet, nameplate, certificate, installation drawing, safety instructions, or machine-builder documentation.

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For availability and quotation details, visit www.apterpower.com or contact sales13@apterpower.com.