Siemens 6DD1662-0AB0

01 Communication Submodule Carrier / system role

Product function and operating context

Siemens 6DD1662-0AB0 organizes the physical and memory interfaces used by serial communication submodules, while the installed SS hardware determines the external protocol and diagnostic meaning.

The CS7 accepts SS4, SS5 or SS52 communication submodules. DUST, USS or PROFIBUS functions are realized through the corresponding installed interfaces and configuration; they are not three automatically available ports on an empty carrier.

Integration checkpoints

- Configured serial communications
- Multi-interface rack integration
- CPU data transfer
- Interface diagnostics

Interface organization	Three separately identified submodule positions
EMC continuity	Bond submodule front panels to the carrier
Diagnostic interpretation	Read each LED pair for its installed interface

Each receptacle has its own dual-port memory allocation and diagnostic LED pair. Record the submodule type and position because the LED interpretation depends on that interface.

6DD1662-0AB0

02 Technical operating envelope

Communication receptacles	3, X01–X03
Dual-port memory	16 kB per communication submodule
Diagnostic indications	2 LEDs per receptacle
Backplane interface	L bus
Occupied rack slots	2

Submodule connector	48-pin
Nominal logic supply	5 V DC
Carrier current	0.5 A typical plus interface-module current
Supported submodules	SS4, SS5, SS52

Ratings apply to the stated hardware execution and operating conditions; companion hardware and configured functions require separate compatibility checks.

Protocol ownership

External protocol capability belongs to the installed SS submodule and its configuration. Do not assign all supported protocols to every carrier assembly.

Screen and cover continuity

Connect the inserted submodule front panels to the CS7 front panel with the supplied screen cables and close unused receptacles. Secure the carrier in the rack.

Reset-test boundary

The test socket pairs initiate a reset for testing. They are not intended as a permanent operational reset circuit.

6DD1662-0AB0

03 System integration and applications

Configured serial communications

Host the SS interface required for the installed serial protocol.

Multi-interface rack integration

Organize separate communication submodules on one carrier.

CPU data transfer

Exchange data through each submodule’s dual-port memory path.

Interface diagnostics

Localize communication faults by submodule position and LED pair.

Application and compatibility boundary

Reliable operation requires the specified front-panel screen connections, secure mounting and covers over unused receptacles. The paired reset test sockets are for testing and must not become an operational control connection.

Available unit verification

Check the CS7 carrier and each fitted submodule, screen lead, cover and connector. Confirm carrier and communication submodules only when individually itemized in the quotation. Evaluate the actual interfaces and included accessories against the installed arrangement.

6DD1662-0AB0

04 Engineering selection decisions

Does an empty 6DD1662-0AB0 provide three ready-to-use PROFIBUS ports?

No. It is a carrier. The fitted SS submodules and their configuration determine the actual protocol and physical interfaces.

Why must submodule positions be recorded before servicing 6DD1662-0AB0?

Each receptacle has its own memory and diagnostic association. Moving an interface can change the relationship between hardware, configuration and CPU data.

How should the LED pairs on 6DD1662-0AB0 be interpreted?

Use the meaning defined for the installed communication submodule. The carrier’s LED locations alone do not define a universal fault code.

Can the reset test sockets on 6DD1662-0AB0 be used as a normal operator reset input?

No. They are intended for test purposes and should not be incorporated as a routine operating control.

What can cause intermittent communication on 6DD1662-0AB0 after a mechanically successful replacement?

Missing front-panel screen leads, loose carrier mounting or uncovered receptacles can impair noise immunity. Check those conditions alongside configuration and cables.

Why must the supply calculation for 6DD1662-0AB0 include its fitted interfaces?

The carrier current is additional to the current consumed by the communication submodules. Budget the complete assembly rather than the carrier alone.

Are the synchronization and clock-interrupt transfer features used by SS4, SS5 and SS52 on 6DD1662-0AB0?

Those transfer functions are not used by the listed submodules. Do not rely on them as an application timing feature without the applicable supported hardware.

What proves that all configured interfaces on 6DD1662-0AB0 have recovered?

Exercise data transfer through each fitted submodule and its intended peer, then compare CPU data and interface diagnostics for every occupied receptacle.

6DD1662-0AB0

05 Configuration boundary and references

Lifecycle and support

The current manufacturing and manufacturer-support stage for this exact model is not confirmed.

Replacement assessment

Retain every SS submodule identity, position, protocol configuration and screen connection. An empty carrier does not replace the external communications hardware.

Available unit details

Offered reference: Siemens 6DD1662-0AB0. Condition: New, original product. Check the CS7 carrier and each fitted submodule, screen lead, cover and connector. Confirm carrier and communication submodules only when individually itemized in the quotation; companion equipment is included only when itemized.

Document roles: The original excerpt retains manufacturer tables and drawings; this brief addresses selection and system context; the separate installation guide covers field procedures and acceptance.

Technical basis: SIMADYN D Hardware, CS7 Communication Support Module.

Related product navigation

- Siemens 6ES7222-1HF22-0XA0
- Siemens 6ES7322-1BF01-0AA0
- Siemens 6ES7223-1BL32-0XB0

Related products for separate application assessment; verify the platform and interface. No interchangeability is implied.

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