

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

PRODUCT BRAND

Siemens

PRODUCT MODEL

6ES7155-6AU00-0CN0

Siemens 6ES7155-6AU00-0CN0 is an IM 155-6 PN HF interface module that connects a SIMATIC ET 200SP station to PROFINET IO. It supports up to 64 ET 200SP I/O modules, selectable BusAdapters, isochronous operation and multi-hot swapping.

The interface module operates from 24 V DC and includes the ET 200SP server module. Siemens lists the article as discontinued with 6ES7155-6AU01-0CN0 as successor, so BusAdapter, firmware, redundancy functions and configured station limits require verification before replacement.

OFFICIAL SOURCE

IM 155-6 PN HF Interface Module Manual

A5E03915895-AF

[Open current Siemens source](#)

Properties

The module has the following technical properties:

- Connects the ET 200SP distributed I/O system with PROFINET IO.
- Supply voltage 1L+ 24 V DC (SELV/PELV). The connection plug is included in the scope of delivery of the interface module.
- PROFINET IO connection via selectable BusAdapters
 - For RJ45 bus connection plug (BA 2×RJ45)
 - For direct connection of the bus cable (BA 2×FC)
 - For fiber-optic cables POF/PCF (BA 2×SCRJ)
 - For transition from fiber-optic cable POF/PCF to the RJ45 bus connection (BA SCRJ/RJ45)
 - For transition from fiber-optic cable POF/PCF to the direct connection of the bus cable (BA SCRJ/FC)
- As of firmware version V 3.0, you can plug a light-colored or a dark-colored BaseUnit into slot 1.

For a list of the functions supported, see (Page 13)

Maximum configuration

- 64 ET 200SP I/O modules
- 1 m backplane bus (without interface module)

Note

Incompatible I/O modules

A list of I/O modules that do not allow a configuration with more than 32 I/O modules is available in section Compatibility of modules (Page 47).

Technical specifications

Technical specifications of the IM 155-6 PN HF

Table 7- 1 Technical specifications of the IM 155-6 PN HF

	6ES7155-6AU00-0CN0
Product type designation	IM 155-6 PN HF with server module
General information	
Firmware version	V3.0
Product function	
I&M data	Yes; I&M0 to I&M4
Engineering with	
STEP 7 TIA Portal can be configured/integrated as of version	V13 SP1
STEP 7 can be configured/integrated as of version	V5.5 SP4 or higher
PROFINET as of GSD version/GSD revision	- / V2.3
Configuration control	
Via data record	Yes
Supply voltage	
Type of supply voltage	DC
Rated value (DC)	24 V
Valid range, low limit (DC)	19.2 V
Valid range, high limit (DC)	28.8 V
Polarity reversal protection	Yes
Power and voltage failure backup	
Power/voltage failure backup time	5 ms
Input current	
Current consumption, max.	700 mA
Inrush current, max.	4.5 A
I ² t	0.09 A ² s
Power loss	
Power loss, typ.	2.4 W
Address area	
Address space per module	
Address space per module, max.	288 bytes; for both input and output data
Address space per station	
Address space per station, max.	1440 bytes; depending on configuration

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Hardware configuration	
Rack	
Modules per rack, max.	64; + 16 ET 200AL modules
Interfaces	
1st interface	
Interface hardware	
Number of ports	2
Integrated switch	Yes
BusAdapter (PROFINET)	Yes; usable BusAdapters: BA 2xRJ45, BA 2xFC, BA 2xSCRJ (as of FS03), BA SCRJ/RJ45 (as of FS03), BA SCRJ/FC (as of FS03)
Protocols	
PROFINET IO device	Yes
Open IE communication	Yes
Media redundancy	Yes; as MRP or MRPD client, max. 50 or 30 devices in the ring
Interface hardware	
RJ45 (Ethernet)	
100 Mbps	Yes; PROFINET with 100 Mbps full duplex (100BASE-TX)
Transmission method	PROFINET with 100 Mbps full duplex (100BASE-TX)
Autonegotiation	Yes
Autocrossing	Yes
Protocols	
PROFINET IO	
PROFINET IO	Yes
PROFINET IO device	
Services	
Isochronous mode	Yes; bus cycle time min. 250 µs
Open IE communication	Yes
IRT	Yes; 250 µs, 500 µs, 1 ms, 2 ms, 4 ms additionally with IRT with high performance: 250 µs to 4 ms in 125 µs intervals
MRP	Yes
MRPD	Yes
PROFINET system redundancy	Yes; NAP S2
PROFIenergy	Yes
Prioritized startup	Yes
Shared Device	Yes
Number of IO controllers with shared device, max.	4

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Open IE communication	
TCP/IP	Yes
SNMP	Yes
LLDP	Yes
Isochronous mode	
Isochronous mode (application synchronized up to terminal)	Yes
Constant bus cycle time	Yes
Shortest clock pulse	250 µs
Longest clock pulse	4 ms
Bus cycle time (TDP), min.	250 µs
Jitter, max.	1 µs
Interrupts/diagnostics/status information	
Status display	Yes
Interrupts	
Interrupts	Yes
Diagnostics alarms	
Diagnostics functions	Yes
Diagnostics indicator LED	
RUN LED	Yes
ERROR LED	Yes
MAINT LED	Yes
Monitoring of the supply voltage (PWR LED)	Yes
Connection display LINK TX/RX	Yes
Electrical isolation	
Between PROFINET and all other circuits	Yes
Between supply and all other circuits	Yes
Permissible potential difference	
Between different circuits	75 V DC/60 V AC (basic insulation)
Insulation	
Insulation tested with	707 V DC between supply voltage and electronics (type test); 1500 V AC between Ethernet and electronics (type test)
Standards, approvals, certificates	
Network loading class	3
Security level	According to Security Level 1 Test Cases V1.1.1
Connection technology	
ET-Connection	
Via BU/BA-Send	Yes; + 16 ET 200AL modules
Dimensions	
Width	50 mm
Height	117 mm
Depth	74 mm
Weights	
Weight, approx.	147 g; without BusAdapter