

SIMATIC ET 200SP, PROFINET interface module IM 155-6PN
 Standard, max. 32 I/O modules, and 16 ET 200AL modules, single
 hot swap, incl. server module (6ES7193-6PA00-0AA0)



General information	
Product type designation	IM 155-6 PN ST
HW functional status	FS02
Firmware version	V4.1
Product function	
<ul style="list-style-type: none"> • I&M data 	Yes; I&M0 to I&M3
<ul style="list-style-type: none"> • Module swapping during operation (hot swapping) 	Yes; Single hot swapping
<ul style="list-style-type: none"> • Isochronous mode 	No
Engineering with	
<ul style="list-style-type: none"> • STEP 7 TIA Portal configurable/integrated as of version 	V14
<ul style="list-style-type: none"> • STEP 7 configurable/integrated as of version 	V5.5 SP4 and higher
<ul style="list-style-type: none"> • PROFINET as of GSD version/GSD revision 	V2.3 / -
Configuration control	
via dataset	Yes
Supply voltage	
Rated value (DC)	24 V

permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Short-circuit protection	Yes
Mains buffering	
• Mains/voltage failure stored energy time	10 ms

Input current	
Current consumption (rated value)	450 mA
Current consumption, max.	550 mA
Inrush current, max.	3.7 A
I^2t	0.09 A ² ·s

Power	
Infeed power to the backplane bus	4.5 W

Power loss	
Power loss, typ.	1.9 W

Address area	
Address space per module	
• Address space per module, max.	256 byte; per input / output
Address space per station	
• Address space per station, max.	512 byte; Dependent on configuration

Hardware configuration	
Rack	
• Modules per rack, max.	32; + 16 ET 200AL modules
Submodules	
• Number of submodules per station, max.	256

Interfaces	
Number of PROFINET interfaces	1; 2 ports (switch)

1. Interface	
Interface types	
• Number of ports	2
• integrated switch	Yes
• BusAdapter (PROFINET)	Yes; Applicable BusAdapter: BA 2x RJ45, BA 2x FC
Protocols	
• PROFINET IO Device	Yes
• Open IE communication	Yes
• Media redundancy	Yes; PROFINET MRP

Interface types	
RJ 45 (Ethernet)	
• Transmission procedure	PROFINET with 100 Mbit/s full duplex (100BASE-TX)

• 10 Mbps	Yes; for Ethernet services
• 100 Mbps	Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• Autonegotiation	Yes
• Autocrossing	Yes

Protocols

PROFINET IO Device

Services

— Isochronous mode	No
— Open IE communication	Yes
— IRT	Yes; with send cycles of between 250 µs and 4 ms in increments of 125 µs
— PROFINergy	Yes
— Prioritized startup	Yes
— Shared device	Yes
— Number of IO Controllers with shared device, max.	2

Redundancy mode

• MRP	Yes
• MRPD	No
• PROFINET system redundancy (S2)	No

Open IE communication

• TCP/IP	Yes
• SNMP	Yes
• LLDP	Yes

Isochronous mode

Isochronous operation (application synchronized up to terminal)	No
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Interrupts/diagnostics/status information

Status indicator	Yes
Alarms	Yes
Diagnostics function	Yes

Diagnostics indication LED

• RUN LED	Yes; green LED
• ERROR LED	Yes; red LED
• MAINT LED	Yes; Yellow LED
• Monitoring of the supply voltage (PWR-LED)	Yes; green PWR LED
• Connection to network LINK (green)	Yes; 2x green link LEDs on BusAdapter

Potential separation

between backplane bus and electronics	No
between PROFINET and all other circuits	Yes; 1 500 V AC
between supply and all other circuits	No

Permissible potential difference	
between different circuits	Safety extra low voltage SELV
Isolation	
Isolation tested with	707 V DC (type test)
Standards, approvals, certificates	
Network loading class	2
Security level	According to Security Level 1 Test Cases V1.1.1
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. 	<ul style="list-style-type: none"> 0 °C 60 °C 0 °C 50 °C
Altitude during operation relating to sea level	
<ul style="list-style-type: none"> • Installation altitude above sea level, max. 	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
Connection method	
ET-Connection	
<ul style="list-style-type: none"> • 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
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