

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"> <li>• I&amp;M data</li> </ul>	Yes; I&M0 to I&M3
<ul style="list-style-type: none"> <li>• Module swapping during operation (hot swapping)</li> </ul>	Yes; Single hot swapping

### Engineering with

<ul style="list-style-type: none"> <li>• STEP 7 TIA Portal configurable/integrated as of version</li> </ul>	V14
<ul style="list-style-type: none"> <li>• STEP 7 configurable/integrated as of version</li> </ul>	V5.5 SP4 and higher
<ul style="list-style-type: none"> <li>• PROFINET as of GSD version/GSD revision</li> </ul>	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

<ul style="list-style-type: none"> <li>• Mains/voltage failure stored energy time</li> </ul>	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 <sup>2</sup> ·s

### Power

Infeed power to the backplane bus	4.5 W
-----------------------------------	-------

### Power loss

Power loss, typ.	1.9 W
------------------	-------

### Address area

<b>Address space per module</b>	
• Address space per module, max.	256 byte; per input / output
<b>Address space per station</b>	
• Address space per station, max.	512 byte; Dependent on configuration
<b>Hardware configuration</b>	
<b>Rack</b>	
• Modules per rack, max.	32; + 16 ET 200AL modules
<b>Submodules</b>	
• Number of submodules per station, max.	256
<b>Interfaces</b>	
Number of PROFINET interfaces	1; 2 ports (switch)
<b>1. Interface</b>	
<b>Interface types</b>	
• Number of ports	2
• integrated switch	Yes
• BusAdapter (PROFINET)	Yes; Applicable BusAdapter: BA 2x RJ45, BA 2x FC
<b>Protocols</b>	
• PROFINET IO Device	Yes
• Open IE communication	Yes
• Media redundancy	Yes; PROFINET MRP
<b>Interface types</b>	
<b>RJ 45 (Ethernet)</b>	
• 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
<b>Protocols</b>	
<b>PROFINET IO Device</b>	
<b>Services</b>	
— Isochronous mode	No
— Open IE communication	Yes
— IRT	Yes; with send cycles of between 250 µs and 4 ms in increments of 125 µs
— PROFlenergy	Yes
— Prioritized startup	Yes
— Shared device	Yes
— Number of IO Controllers with shared device, max.	2
<b>Redundancy mode</b>	

• MRP	Yes
• MRPD	No
• PROFINET system redundancy (S2)	No
<b>Open IE communication</b>	
• TCP/IP	Yes
• SNMP	Yes
• LLDP	Yes
<b>Isochronous mode</b>	
Isochronous operation (application synchronized up to terminal)	No
<b>Interrupts/diagnostics/status information</b>	
Status indicator	Yes
Alarms	Yes
Diagnostics function	Yes
<b>Diagnostics indication LED</b>	
• 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
<b>Potential separation</b>	
between backplane bus and electronics	No
between PROFINET and all other circuits	Yes; 1500 V AC
between supply and all other circuits	No
<b>Permissible potential difference</b>	
between different circuits	Safety extra low voltage SELV
<b>Isolation</b>	
Isolation tested with	707 V DC (type test)
<b>Standards, approvals, certificates</b>	
Network loading class	2
Security level	According to Security Level 1 Test Cases V1.1.1
<b>Ambient conditions</b>	
<b>Ambient temperature during operation</b>	
• horizontal installation, min.	0 °C
• horizontal installation, max.	60 °C
• vertical installation, min.	0 °C
• vertical installation, max.	50 °C
<b>Connection method</b>	
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

**last modified:** 07/26/2019