

SIMATIC ET 200SP, PROFINET INTERFACE MODULE ET 200SP  
IM155-6PN HIGH FEATURE MAX. 64 PERIPHERY MODULES, 0.25  
MS ISOCHRONOUS MODE MULTI HOT SWAP, INCL.  
SERVERMODUL



General information	
Product type designation	IM 155-6 PN HF with server module
Firmware version	V3.3
Product function	
• I&M data	Yes; I&M0 to I&M4
Engineering with	
• STEP 7 TIA Portal configurable/integrated as of version	V13 SP1 Update 6
• STEP 7 configurable/integrated as of version	V5.5 SP4 and higher
• 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
Mains buffering	

• Mains/voltage failure stored energy time	5 ms
<b>Input current</b>	
Current consumption, max.	700 mA
Inrush current, max.	4.5 A
$I^2t$	0.09 A <sup>2</sup> ·s
<b>Power loss</b>	
Power loss, typ.	2.4 W
<b>Address area</b>	
Address space per module	
• Address space per module, max.	288 byte; For input and output data respectively
Address space per station	
• Address space per station, max.	1 440 byte; Dependent on configuration
<b>Hardware configuration</b>	
Rack	
• Modules per rack, max.	64; + 16 ET 200AL modules
Submodules	
• Number of submodules per station, max.	256
<b>Interfaces</b>	
Number of PROFINET interfaces	1; 2 ports (switch)
<b>1. Interface</b>	
Interface types	
• Number of ports	2
• integrated switch	Yes
• BusAdapter (PROFINET)	Yes; Compatible BusAdapter: BA 2x RJ45, BA 2x FC, BA 2x SCRJ (from FS03, V2.2), BA SCRJ / RJ45 (from FS03, V3.1), BA SCRJ / FC (from FS03, V3.1), BA 2x LC (from FS03, V3.3), BA LC / RJ45 (from FS03, V3.3), BA LC / FC (from FS03, V3.3)
Functionality	
• PROFINET IO Device	Yes
• Open IE communication	Yes
• Media redundancy	Yes; PROFINET MRP
<b>Interface types</b>	
RJ 45 (Ethernet)	
• Transmission procedure	PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• 10 Mbps	No
• 100 Mbps	Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• Autonegotiation	Yes
• Autocrossing	Yes
<b>Protocols</b>	

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 frame
— MRP	Yes
— MRPD	No
— PROFINET system redundancy	Yes; NAP S2
— PROFINergy	Yes
— Prioritized startup	Yes
— Shared device	Yes
— Number of IO Controllers with shared device, max.	4
Open IE communication	
• TCP/IP	Yes
• SNMP	Yes
• LLDP	Yes
Isochronous mode	
Isochronous operation (application synchronized up to terminal)	Yes
Equidistance	Yes
shortest clock pulse	250 µs
max. cycle	4 ms
Bus cycle time (TDP), min.	250 µs
Jitter, max.	1 µs
Interrupts/diagnostics/status information	
Status indicator	Yes
Alarms	Yes
Diagnostic functions	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
between supply and all other circuits	Yes
Isolation	

Isolation tested with	707 V DC between supply voltage and electronics (type test); 1 500 V AC between Ethernet and electronics (type test)
<b>Standards, approvals, certificates</b>	
Network loading class	3
Security level	According to Security Level 1 Test Cases V1.1.1
<b>Ambient conditions</b>	
Ambient temperature during operation	
• 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
<b>Dimensions</b>	
Width	50 mm
Height	117 mm
Depth	74 mm
<b>Weights</b>	
Weight, approx.	147 g; without BusAdapter
<b>last modified:</b>	08/12/2017