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	
	V

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	

Rack • Modules per rack, max. 64; + 16 ET 200AL modules Submodules • Number of submodules per station, max. 256 **Number of PROFINET interfaces **Number of PROFINET interfaces **Interface Interface types • Number of ports • Susadapter (PROFINET) • BusAdapter (PROFINET) **Pes: 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 SCRJ / FC (from FS03, V3.3), BA LC / FC (from FS03, V3.3), BA LC / FC (from FS03, V3.3), BA LC / FD (from FS03, V3.3) **Functionality** • PROFINET IO Device Yes • Open IE communication Yes; PROFINET MRP **Nedia redundancy Yes; PROFINET MRP **Nedia redundancy Yes; PROFINET MRP **Netface types RJ 45 (Ethernet) • Transmission procedure • 10 Mbps • 100 Mbps • 100 Mbps • 100 Mbps • Autonegotiation • Autocrossing **Yes	 Mains/voltage failure stored energy time 	5 ms
Inrush current, max. 4.5 A 0.09 A*s	nput current	
Power loss Power loss, typ. ***Xodress area** **Address space per module** **Address space per module, max.** **Address space per module, max.** **Address space per station, max.** **Address space per module **Address space per module max.** **Address space per module **Address space per module max.** **Address space per module **Address space per module max.** **Address space per module are specified in the space per module are space per module are specified in the space per space per module are space per module are space per module are space per station and space per module are space per space p	Current consumption, max.	700 mA
Power loss Power loss, typ. 2.4 W Indifferent space per module Address space per module, max. 288 byte; For input and output data respectively Address space per station Address space per station Address space per station, max. 1 440 byte; Dependent on configuration Rack Modules per rack, max. 64; + 16 ET 200AL modules Submodules Number of submodules per station, max. 256 Interfaces Number of PROFINET interfaces 1; 2 ports (switch) Interface bytes Number of ports 2 integrated switch 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, V3.3), BA LC / FC (from FS03, V3.3) Functionality PROFINET IO Device Yes Open IE communication Yes Media redundancy Yes; PROFINET MRP PROFINET with 100 Mbit/s full duplex (100BASE-TX) No 100 Mbps PROFINET with 100 Mbit/s full duplex (100BASE-TX) Autonegotiation Yes Autonegotiation Yes PROFINET with 100 Mbit/s full duplex (100BASE-TX) Autonegotiation Yes	Inrush current, max.	4.5 A
Power loss, typ. Address area 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 fardware configuration Rack • Modules per rack, max. 64; + 16 ET 200AL modules Submodules • Number of submodules per station, max. 256 Interfaces Number of PROFINET interfaces • Number of ports • integrated switch • BusAdapter (PROFINET) Yes; Compatible BusAdapter: BA 2x RJ45, BA 2x FC, BA 2x SCRJ / FC (from FS03, V2.2), BA SCRJ / RJ45 (from FS03, V3.3), BA LC / RJ45 (from FS03,	l²t	0.09 A²·s
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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 Open IE communication Media redundancy Yes; PROFINET MRP **Net Tansmission procedure Tansmission procedure On the Media redundancy PROFINET with 100 Mbit/s full duplex (100BASE-TX) No Tansmission procedure On the Media redundancy PROFINET with 100 Mbit/s full duplex (100BASE-TX) No Autonegotiation Autocrossing Yes	BusAdapter (PROFINET)	
LC / RJ45 (from FS03, V3.3), BA LC / FC (from FS03, V3.3) Functionality PROFINET IO Device Open IE communication Media redundancy Yes; PROFINET MRP Interface types RJ 45 (Ethernet) Transmission procedure PROFINET with 100 Mbit/s full duplex (100BASE-TX) No 100 Mbps Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX) No Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX) Autonegotiation Autocrossing Yes		
Functionality PROFINET IO Device Open IE communication Media redundancy Yes; PROFINET MRP **Transmission procedure 10 Mbps 100 Mbps Autonegotiation Autocrossing Yes Yes Yes Yes Yes Yes Yes; PROFINET MRP PROFINET with 100 Mbit/s full duplex (100BASE-TX) Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX) Yes		
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 Autonegotiation Autocrossing Yes Yes 	• 10 Mbps	No
• Autocrossing Yes	• 100 Mbps	Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• Autocrossing Yes	Autonegotiation	Yes
Protocols		Yes
	Protocols	

PROFINET IO Device	
Services	
— Isochronous mode	Yes; Bus cycle time: min. 250 μs
— Open IE communication	Yes
— IRT	Yes; 250 μ s, 500 μ s, 1 ms, 2 ms, 4 ms additionally with IRT with high performance: 250 μ s to 4 ms in 125 μ s frame
— MRP	Yes
— MRPD	No
— PROFINET system redundancy	Yes; NAP S2
— PROFlenergy	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
sochronous 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
nterrupts/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 display LINK TX/RX	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
solation	

Isolation tested with	707 V DC between supply voltage and electronics (type test); 1 500 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
Ambient conditions	
Ambient temperature during operation	
horizontal installation, min.	0 °C
 horizontal installation, max. 	60 °C
• vertical installation, min.	0 °C
• vertical installation, max.	50 °C
Connection method	
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

10/08/2016

last modified: