

Energy Automation

Power Transmission and Distribution

Compact Telecontrol System TM 1703 ACP

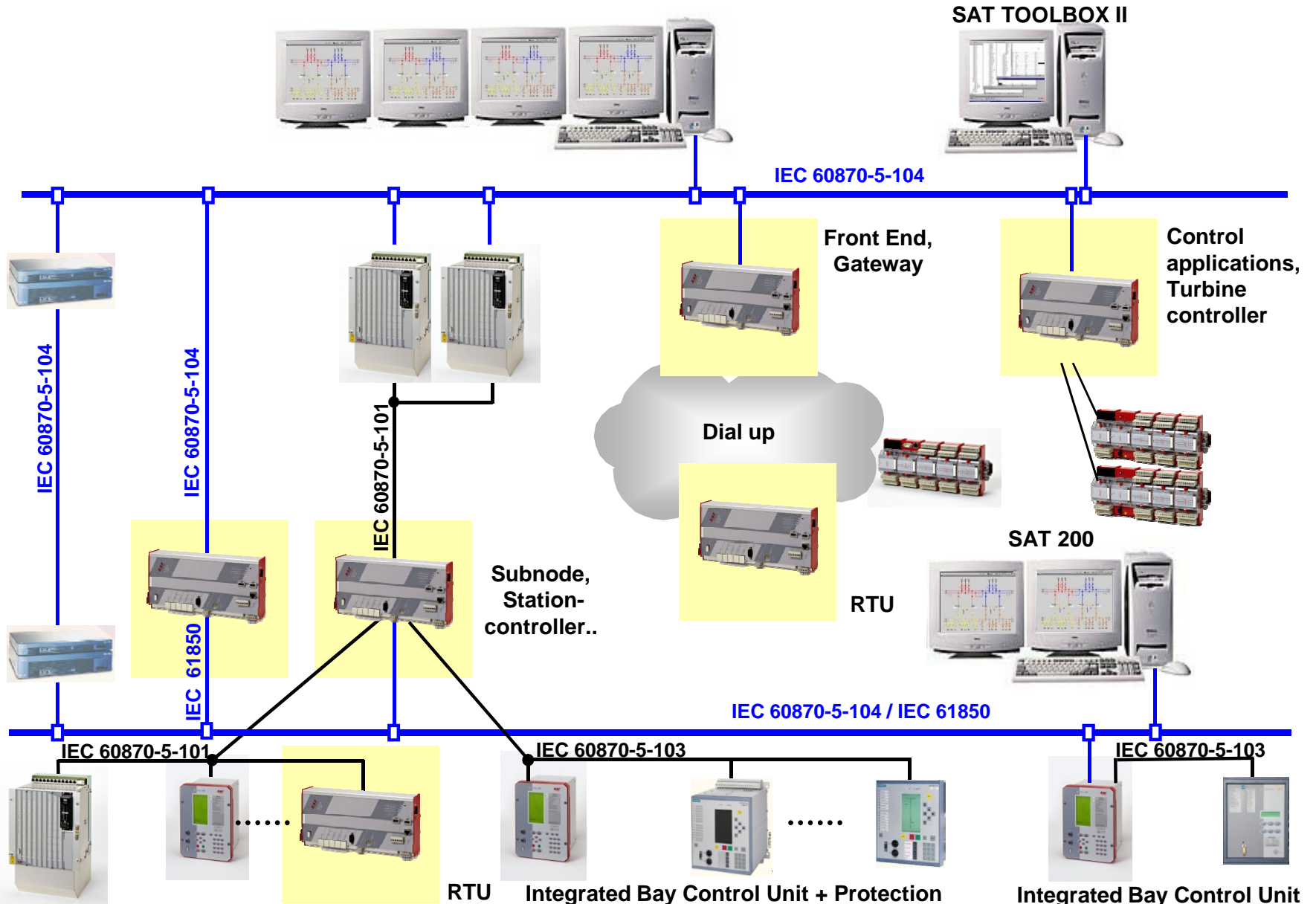
Configurations

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TM 1703 ACP



SIEMENS



Applications

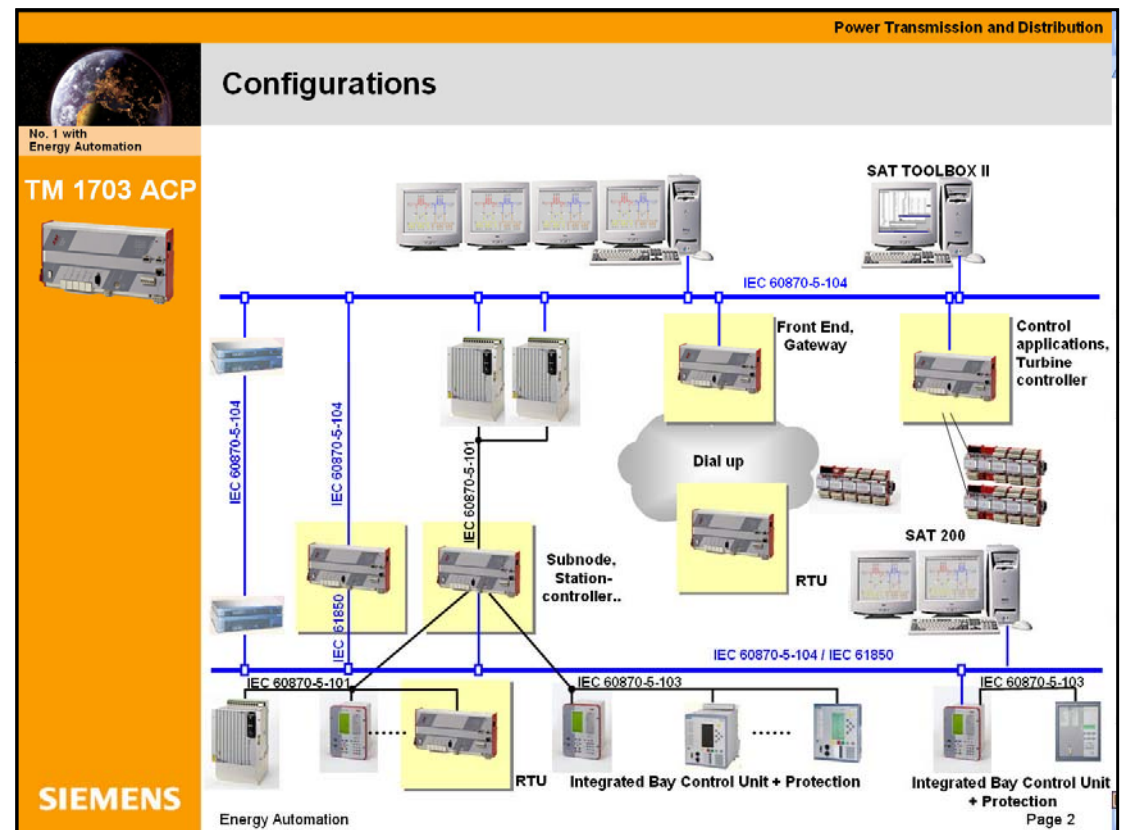
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TM 1703 ACP



Automation with integrated Telecontrol

- Hydroelectric power stations
(e.g. turbine controller TC 1703)
- Distribution and transmission of electric power
- Oil and gas pipelines
- Traffic (railroads, tunnels, ...)





Architecture

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Process Control System



SAT TOOLBOX II



NTP



LAN/WAN or serial communication

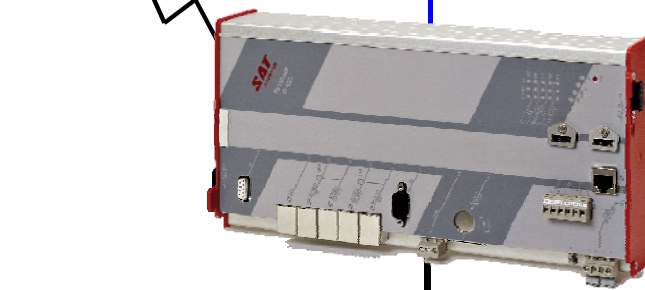
IEC 60870-5-101

IEC 60870-5-104

Master Control Element

Peripheral Element

Profibus DP (optional)



Master Control Element CP-6003/CPC65

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Power supply 24-60VDC

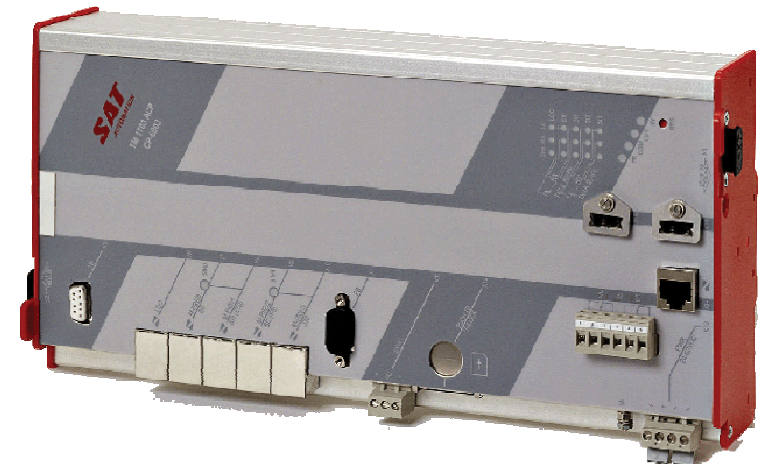
Up to 4 communication interfaces via insertable serial interface modules for

- 4 serial, or
- 3 serial + 1 LAN/WAN interface, or
- 2 serial + Profibus DP Master,
- 2 serial + 1 LAN (IEC 104/61850) + 1 WAN (IEC 104)

Up to 16 TM 1703 periphery interfacing modules via Ax 1703-peripherals bus

ACP features

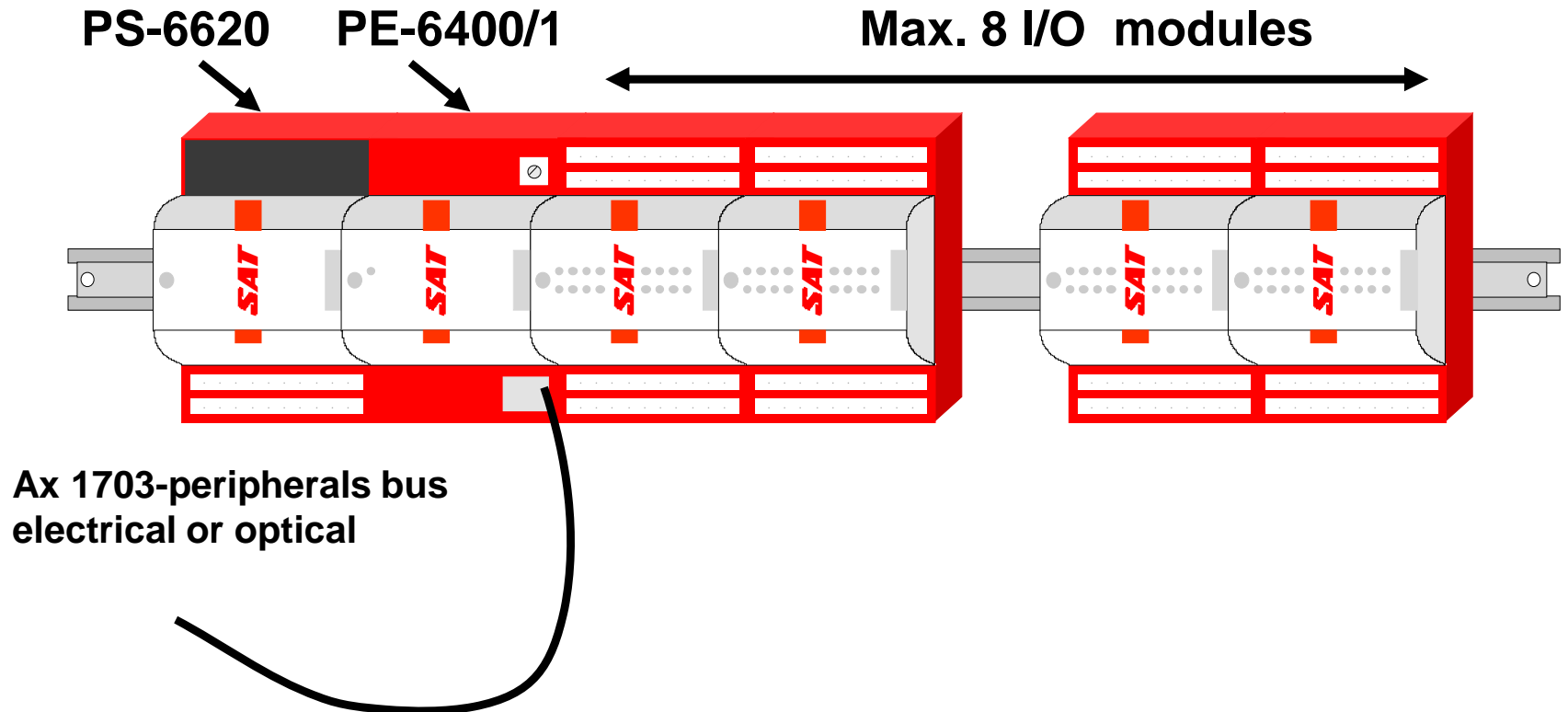
- CAEx plus
- Plug & Play for spare parts
- ...



Peripheral Element TM 1703 ACP

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Periphery Interfacing TM 1703 ACP

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Interfacing of max. 8 I/O modules via TM-Bus

- max. 4 analogue I/O modules

Acquisition, processing and output of process data via I/O modules.

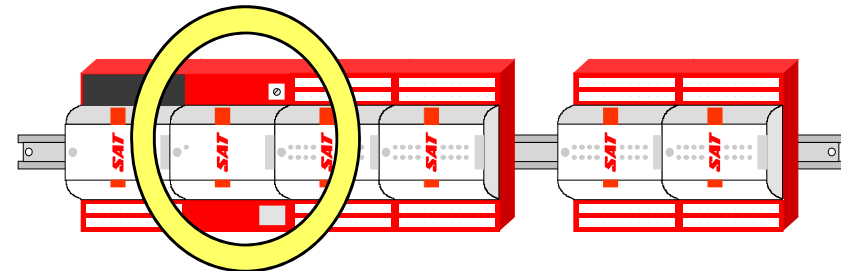
- Direct interfacing for wire cross-sections up to 2,5 mm²

Data exchange with Master Control Element via Ax 1703-peripherals bus

Mounting on 35 mm DIN rail

Power supply via PS-66xx

(Input voltage 24 .. 60, 110 .. 220 VDC)



Available Modules TM 1703

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Power supply

PS-6620	24-60VDC
PS-6630	24-60VDC EMC+
PS-6632	110-220VDC EMC+

Peripheral control modules

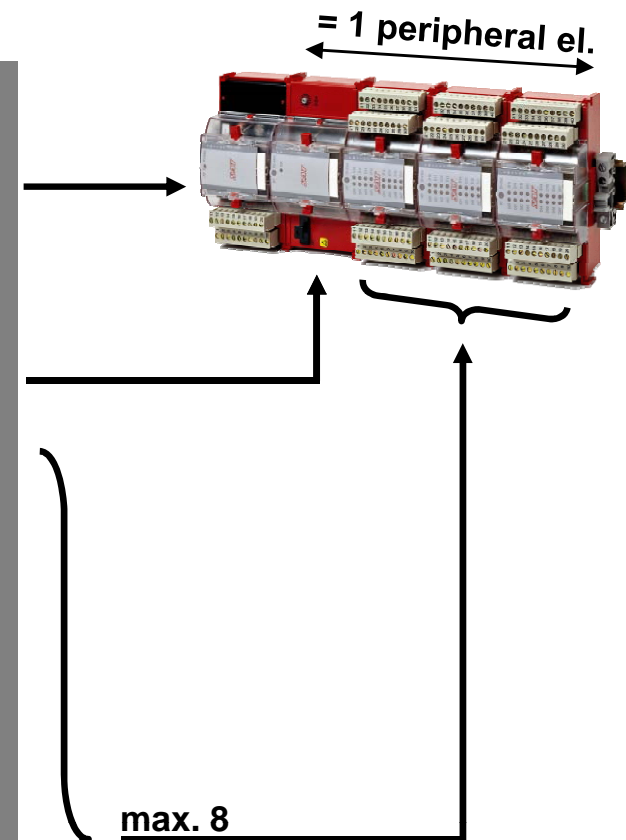
PE-6400	Ax-PE Bus coupler (electrical, USB, 3m)
PE-6401	Ax-PE Bus coupler (1x optical PCF, 200m)

Binary I/O modules

DI-6100	Binary Input 2x8, 24-60VDC, resolution 10ms
DI-6101	Binary Input 2x8, 110/220VDC, resolution 10ms
DI-6102	Binary Input 2x8, 24-60VDC, resolution 1ms
DI-6103	Binary Input 2x8, 110/220VDC, resolution 1ms
DO-6200	Binary Output Transistor 2x8, 24-60VDC
DO-6212	Binary Output Relays 8x 24-220VDC/230VAC

Analog I/O modules

AI-6300	Analog Input 2x2 $\pm 20\text{mA}/\pm 10\text{V}$
AI-6307	Analog Input 2x2 $\pm 5\text{mA}$ **)
AI-6310	Analog Input 2x2 Pt100/Ni100
AI-6303*)	Analog Input (Transformer, 4xU, 3xI) EMC+
AO-6380	Analog Output 4x $\pm 20\text{mA}/\pm 10\text{mA}/\pm 10\text{V}$
TE-6420	Speed Measurement 2x2 24VDC/5VDC/NAMUR
TE-6450	Position Acquisition 2x2 SSI/RS-422



*) not modular, 1 separate peripheral element

**) planned, Q3/2006

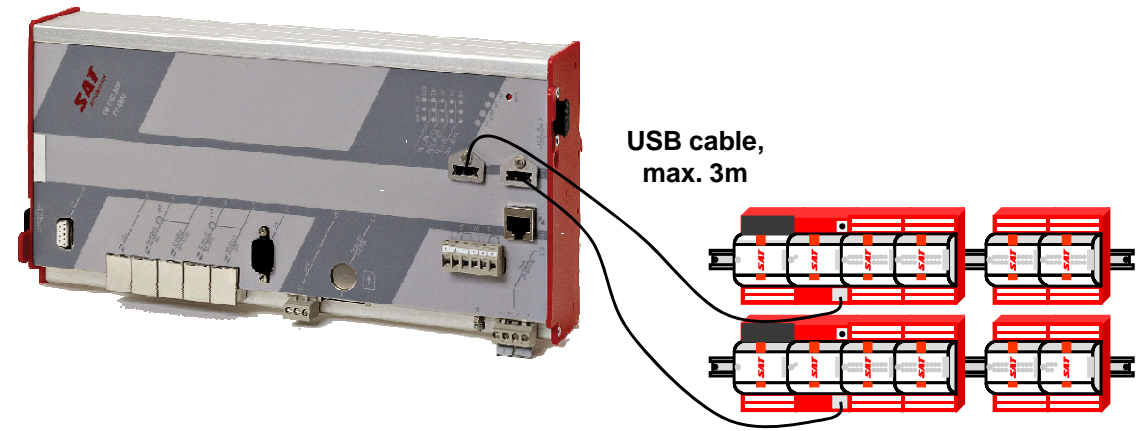
Coupling of Peripheral Elements external

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Electrical (*2 periphery interfacing modules)



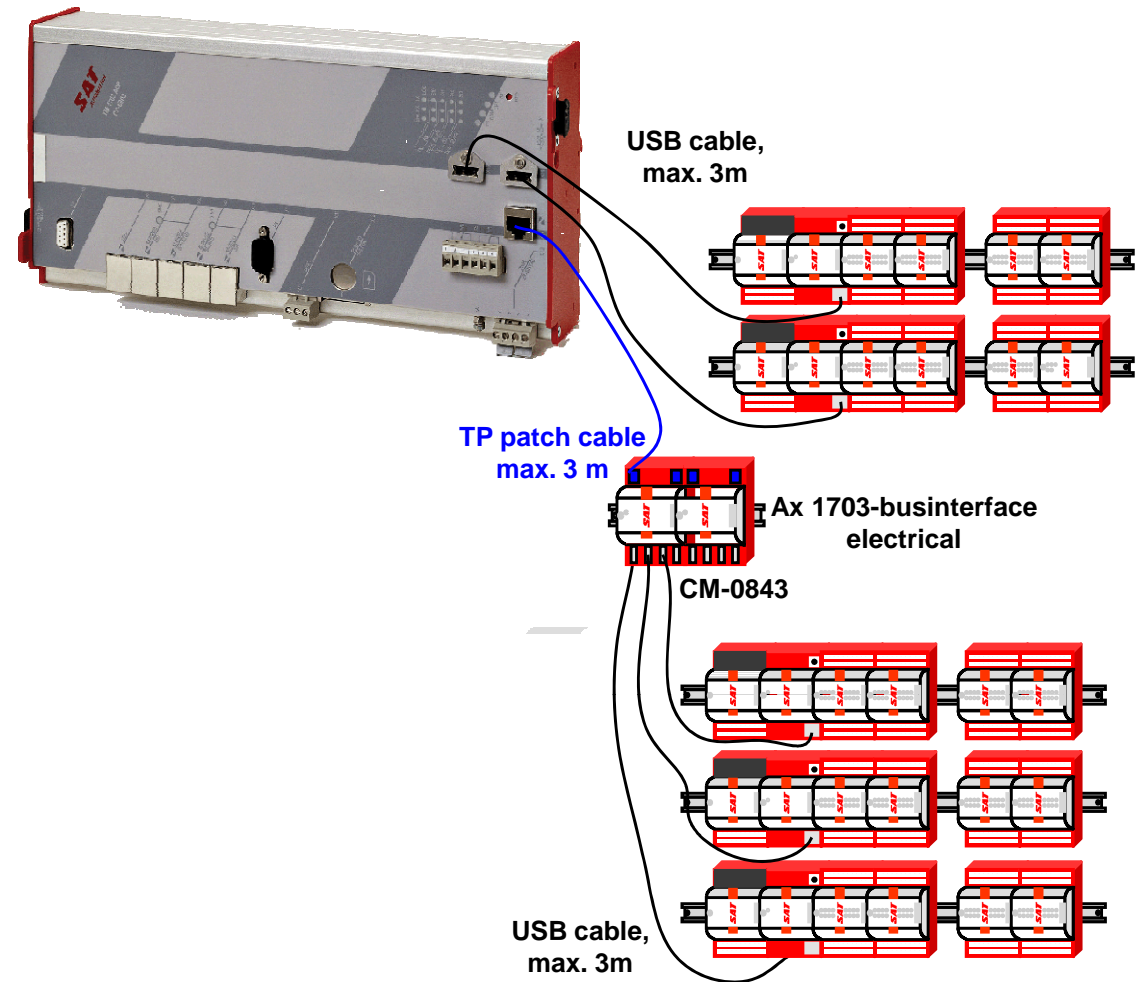
Coupling of Peripheral Elements external

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Electrical (>2 periphery interfacing modules)



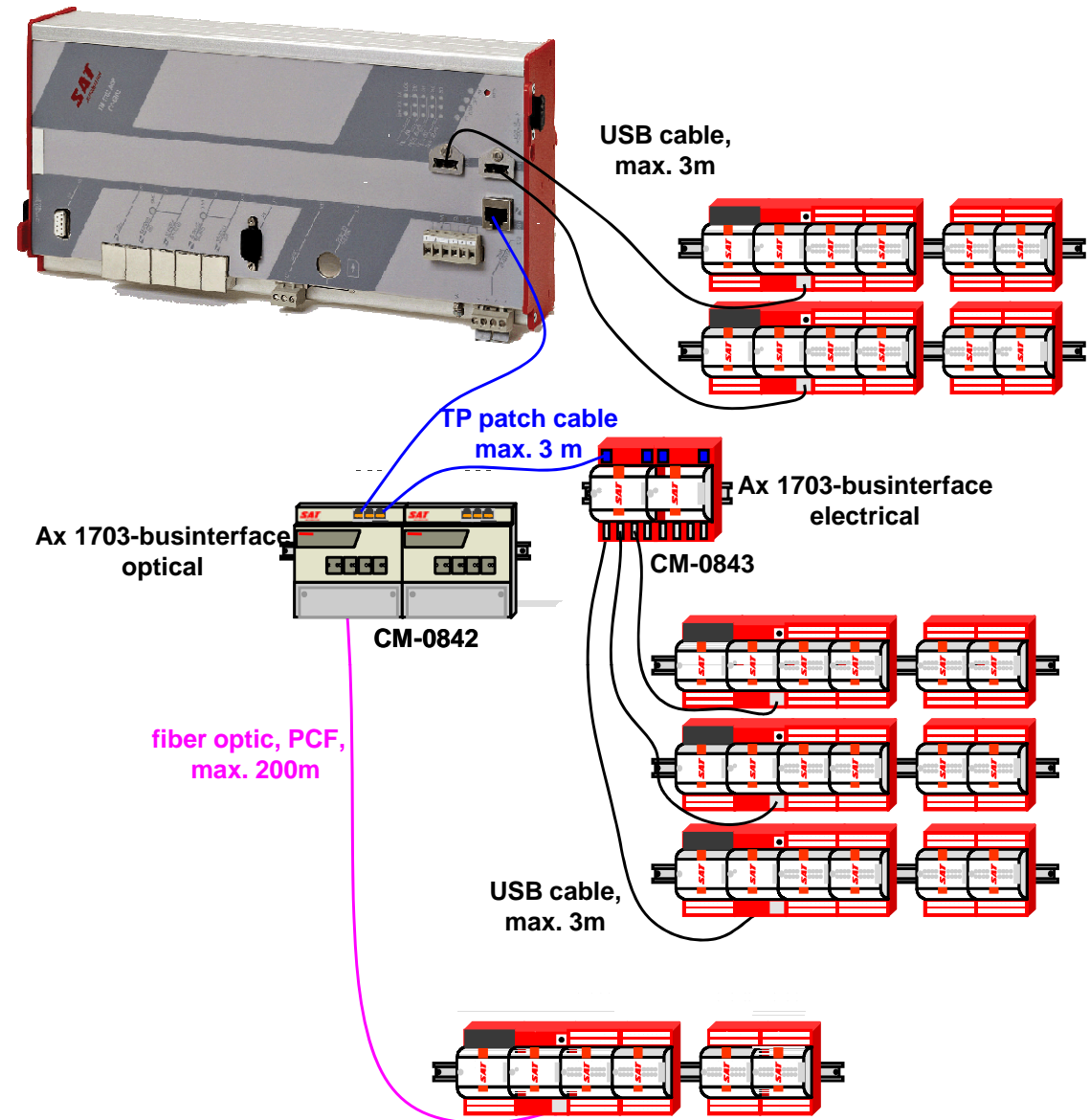
Coupling of Peripheral Elements external

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Electrical + Optical



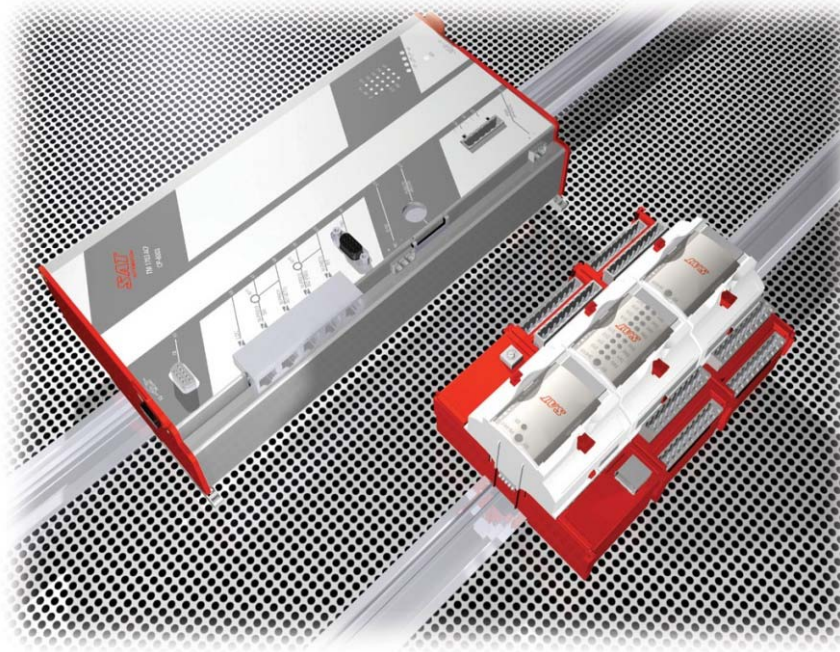


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ACP 1703 Features



Parameters stored on Flash Card

Plug & Play for Spare Parts

**Engineering with
SAT TOOLBOX II**

**Programming language
according to IEC 61131-3**

**Remote Maintenance with SAT
TOOLBOX**

[Decentral Archiving](#)

