

Preface

Purpose of This Manual

This manual explains how to establish and operate a point-to-point link.

Contents of the manual

The manual describes the hardware and software of the CP 441 communication processor and its integration in an S7-400 automation system.

The following subjects are covered:

- The basics of point-to-point link with the CP 441
- Commissioning the CP 441
- Mounting the CP 441
- Communication via the CP 441
- Troubleshooting
- Application examples
- Properties and technical specifications

Scope of the manual

The manual is relevant to the following CPs and interface modules:

Product	Order number	As of Release
CP 441-1	6ES7 441-1AA04-0AE0	01
	6ES7 441-1AA05-0AE0	01
CP 441-2	6ES7 441-2AA04-0AE0	01
	6ES7 441-2AA05-0AE0	01
RS232 module	6ES7 963-1AA00-0AA0	01
	6ES7 963-1AA10-0AA0	01
20 mA TTY module	6ES7 963-2AA00-0AA0	01
	6ES7 963-2AA10-0AA0	01
X27 (RS422/485) module	6ES7 963-3AA00-0AA0	01
	6ES7 963-3AA10-0AA0	01

Product Description

1.1 Applications for the Communication Processor

Introduction

The communication processor allows you to exchange data between programmable controllers or computers by means of a point-to-point link.

Functionality of the CP 441

The CP 441 communication processor provides the following functionality:

- A choice of two models with either one (the CP 441-1) or two (CP 441-2) serial device interfaces, which can be adjusted to suit the properties of the communication partners by means of plug-in interface modules. There are three interface modules available:
 - RS232 interface module
 - 20mA TTY interface module
 - X27 (RS422/485) interface module
- Transmission rate:
 - CP 441-1 (6ES7 441-1AA04-0AE0): Max. 38.4 kbps
 - CP 441-1 (6ES7 441-1AA05-0AE0): Max. 115.2 kbps
 - CP 441-2 (6ES7 441-2AA04-0AE0): Max. 115.2 kbps (sum data transmission rate)
 - CP 441-2 (6ES7 441-2AA05-0AE0): Max. 115.2 kbps per interface
- Integration of the most important transmission protocols in the module firmware.
- Custom parameter assignment of the transmission protocols with the **CP441: Configuration Package for Point to Point Communication** parameter assignment interface
- For CP 441-2 from order number 6ES7 441-2AA02-0AE0 to order number 6ES7 441-2AA04-0AE0 is the reloading of customer-specific driver (transmission protocols) with the **CP 441: Configuration Package for Point to Point Communication** possible.

Note

Modbus

The firmware of the CP 441-2 with order number 6ES7 441-2AA05-0AE0 already includes drivers for Modbus master, Modbus slave and Data Highway that can be used with a dongle.

Configuration of the reloadable drivers requires the installation of the packages for Modbus master and Modbus slave.
