

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6ES7461-4AA01-0AA0

REMOTE RACK RECEIVE INTERFACE MODULE

Used with the applicable SIMATIC S7-400 IM461-4 configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens SIMATIC S7-400 IM461-4 manufacturer documentation; applicable pages 1, 2, 3, 4

6.5 Interface modules IM 460-4; (6ES7460-4AA01-0AB0) and IM 461-4; (6ES7461-4AA01-0AA0)

Function

The interface module pair IM 460-4 (send IM) and IM 461-4 (receive IM) are used for a remote link of up to a maximum 605 m (exactly: 600 m plus inputs/outputs of 1.5 m in the line).

Position of the operator controls and indicators of the IM 460-4 and IM 461-4

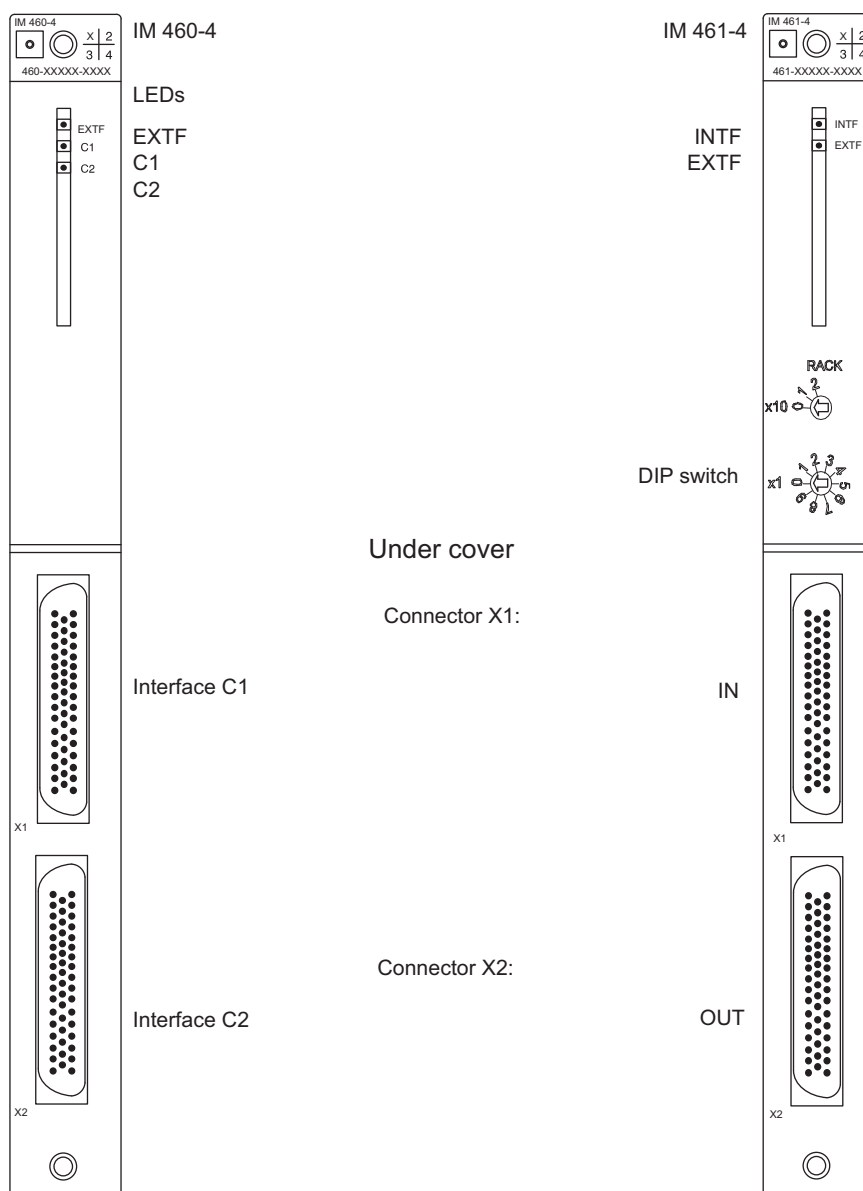


Figure 6-5 Position of the operator controls and indicators of the IM 460-4 and IM 461-4

Operator controls and indicators on the send IM

Table 6-12 Operator controls and indicators on the send IM

LEDs	Meaning
EXTF LED (red)	Lights up in the event of an external fault. Line 1 or line 2 is faulty (terminator missing or broken cable)
C1 LED (green)	Line 1 (via front connector X1, connection 1) is correct.
C1 LED (flashing green)	An EU in the line is not ready for operation because: • The power supply module is not switched on • A module has not yet completed the initialization process
C2 LED (green)	Line 2 (via front connector X2, connection 2) is correct.
C2 LED (flashing green)	An EU in the line is not ready for operation because: • The power supply module is not switched on • A module has not yet completed the initialization process

The LEDs EXTF, C1 and C2 do not light up if the terminator is not inserted or the line is interrupted when in POWER ON mode. In this case the IM 460 identifies an unoccupied interface.

Operator controls and indicators of the receive IM

Table 6-13 Operator controls and indicators of the receive IM

LEDs	Meaning
INTF LED (red)	Lights up if a rack number > 21 or = 0 was set. Lights up if you have changed the rack number under voltage.
EXTF LED (red)	Lights up in the event of an external fault (line fault, for example, if the terminator is not inserted or if a module has not yet completed the initialization process, or if the CC is switched off)
DIP switch	DIP switch to set the number of the mounting rack.
Front connector X1	Upper connector (input) for the cable from the previous interface module.
Front connector X2	Lower connector (output) for the cable to the next interface module or for the terminator.

Parameter assignment

Using the DIP switch on the front panel of the module, you must set the number of the mounting rack in which the receive IM is installed. The permitted range is 1 to 21.

If required, you can change the distance setting for the line on the programming device using STEP 7.

The default setting for the distance is 600 m.

Ensure that the distance corresponds as closely as possible to the current length (the sum of all the cables per line) as this will accelerate data transmission.

Note

The distance set must always be longer than the actual length of cable per line.

Setting/changing the number

Proceed as follows:

1. Set the switch of the power supply module in the EU in which you want to make the change to the  position (Output voltage 0 V).
2. Enter the number using the DIP switch.
3. Switch the power supply module on again.

Specifications of the IM 460-4 and IM 461-4

Maximum line length (total)	605 m
Dimensions W x H x D (mm)	25 x 290 x 280
Weight	
• IM 460-4	630 g
• IM 461-4	620 g
Current consumption from the S7-400 bus 5 VDC	
• IM 460-4	Typ. 1350 mA Max. 1550 mA
• IM 461-4	Typ. 590 mA Max. 620 mA
Power loss	
• IM 460-4	Typ. 6750 mW Max. 7750 mW
• IM 461-4	Typ. 2950 mW Max. 3100 mW
Terminator	6ES7461-4AA00-7AA0
Backup current	None

Compatibility

You cannot use the IM 460-4 and IM 461-4 interface modules with CPUs that have the following order numbers:

- 6ES7412-1XF00-0AB0
- 6ES7413-1XG00-0AB0
- 6ES7413-2XG00-0AB0
- 6ES7414-1XG00-0AB0

6.5 Interface modules IM 460-4; (6ES7460-4AA01-0AB0) and IM 461-4; (6ES7461-4AA01-0AA0)

- 6ES7414-2XG00-0AB0
- 6ES7416-1XJ00-0AB0