



If the Advant Fieldbus 100 contains one or more of CI520, CI526, CI626, CI810 or PM810 (without the suffix $V_x^{(1)}$ or $y^{(2)}$), it is only possible to use redundant coaxial media with a maximum difference of four meters in cable length, between any two stations on the bus. A redundant Twisted Pair or Optical media cannot be used in this case.

(1) V_1, V_2, V_3 , and so on

(2) $y=A, B$, and so on

Communication Interface Redundancy

Communication interface redundancy is achieved by using a pair of CI522s, CI630s, CI631s, CI869s or CI820s, connected to a media redundant bus. Communication interface redundancy is available for Advant Controller 400 Series, Advant Controller 160, AC 800M controller, and S800 I/O stations.

Two communication interfaces (CIs) can operate as a pair, where one is Primary and the other is Backup in the controller configuration.

Functions of Primary CI

In a redundant configuration, the address of the primary CI is the configured station address on the bus.

The primary CI:

- Sends all output CDPs.
- Receives all input CDPs.
- Sends the time synchronization message if the station is configured as time synchronization master.
- Handles the normal Service Data communication for the station.
- Supervises that the backup can send on the bus. This is done at a low frequency using the service data protocol.
- Must be configured as bus master if the module is CI522/CI630 or CI631, so that the bus master responsibilities are performed.

Table 6. Advant Fieldbus 100 Equipment Items (Continued)

Equipment Item	Type Designation	Description	Remarks
AdvaSoft for Windows *1.x & Advant OPC Server for AF 100 & AC 100 OPC Server	CI526V1	Interface with connectors for special modem cables. The communication interface is a full length ISA module. Full redundant media support. Full time synchronization capability.	
	CI526	Interface with connectors for special modem cables. The communication interface is a full length ISA module. Reduced redundant media support, max 4 meters cable difference between any two station on the bus, on coaxial media only. Full time synchronization capability.	Replaced by CI526V1
	CI525	Interface with connectors for special modem cables. The communication interface is a full length ISA module. Reduced redundant media support, max 4 meters cable difference between any two station on the bus, on coaxial media only. No Time synchronization SLAVE capability.	Replaced by CI526
	CI527A	Interface with two integrated twisted pair modems. The communication interface is a half length PCI module supporting 5 and 3.3 Volt PCI. Full redundant media support Full time synchronization capability.	
	CI527	Interface with two integrated twisted pair modems. The communication interface is a half length PCI module supporting 5 Volt PCI. Full redundant media support Full time synchronization capability.	Replaced by CI527A

- Connection. CI522 to TC625/ TC512/TC516
- Cable length 1.80 m (5.9 ft.)
- It is connected one-to-one.
 - Remarks. Right hand angled hood in CI522 end.
- Modem cable:
- Cable number. TK803V036 (Used for AC 410)
- Connection. CI522 to TC625/TC512/TC516
- Cable length 3.60 m (11.8 ft.)
- It is connected one-to-one.
 - Remarks. Right hand angled hood in CI522 end.

CI526¹ Communication Interface

The communication interface CI526 is used for connection of an AC 100 OPC Server based Personal Computer to the Advant Fieldbus 100. It can handle up to 3999 CDPs and have full functionality of a bus administrator, it can be a bus master on the bus. It is used for the PC based operator station application. CI526 has the capability to both send and receive the time synchronization signal.

Technical Data of Communication Interface CI526

The communication interface CI526 is mounted in an ISA slot in the Personal Computer.

CI526 Interface for Advant Fieldbus 100 Hardware

The Advant Fieldbus 100 Interface hardware consists of the following:

- **CI526 interface board**

The CI526 interface board fits in the IBM PC AT ISA bus and supports single or redundant bus cabling.
- **TC625/TC512/TC516 modems**

1. See [Table 6](#) for information about CI525 and CI526 variants

One or two TC625 modems (single or redundant) for Coaxial cable or, alternatively, one TC630 modem for single optical cable.

- **RA545 mounting plate**

For mounting of the modems and the power supply unit

- **SB512 power supply unit**

Power supply for the TC625/TC512/TC516 modem mounted on the same mounting plate.

- **TK549 connection cable**

A cable for connection between the CI526 board and the TC625 modem(s).

Front Panel of the Communication Interface CI526

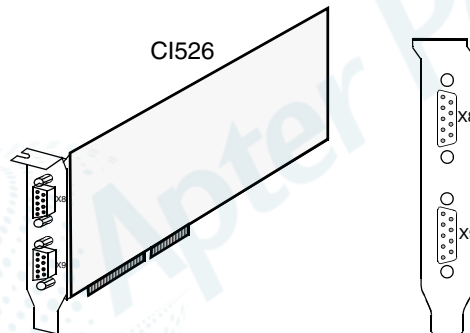


Figure 85. Front of CI526

CI526 Strappings

CI526 has four strapping bars X12, X13, S1 and S2. X12 and X13 are not strapped while S1 and S2 shall always be strapped according to the figure.

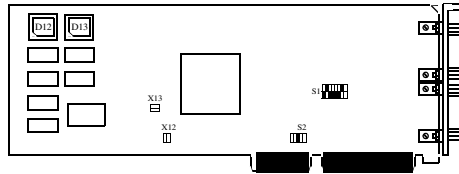


Figure 86. CI526 Strappings

Power Supply

Power consumption of the CI526 are 3.7 W (+5V).

Modem Installation

TC625 modem installation

Connect the TK549 connection cable to the CI526 interface board, the TC625 modem and the SB512 power supply unit, as shown in [Figure 83](#).

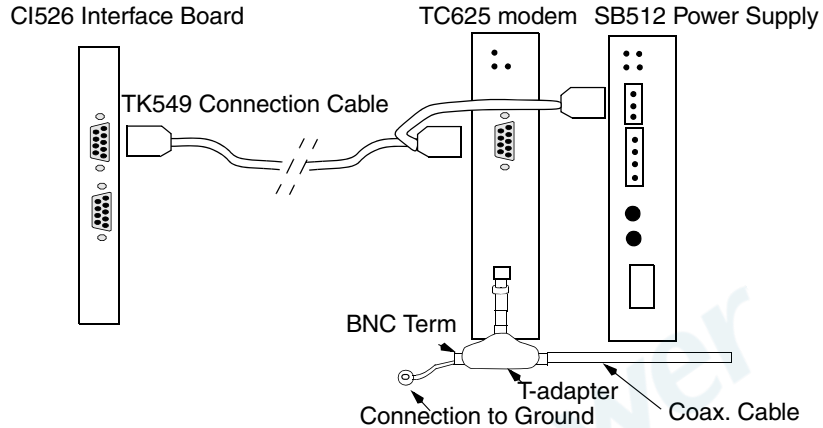


Figure CH-1. TC625 Modem Installation (Coax. Cable)

The TC625 modem is connected to the Advant Fieldbus 100 network with a BNC T-adapter.

A redundant media modem/coax. cable is mounted in a similar way to the other connector on the interface unit.

TC512/TC516 Modem Installation

Twisted pair media is connected to the interface by the TC512/TC516 modem in a similar way as the TC625 modem.

Connection Specifications

Bus connection X8, cable 1 and X9, cable 2 on CI526:

- Type of connector D-sub female, 9 pin
- Output voltage RS-485, GND
- Input voltage RS-485
- Input impedance type. 12 kohms.

Modem cable for coaxial media:

- Cable number. TK 549

- Connection. CI526 to TC625
 - Cable length 1.80 m (5.9 ft.)
 - It is connected straight through.
 - Remarks. Conn. for external 24 V power supply in the TC625 end.
- Modem cable for twisted pair media:
- Cable number. TK 515
 - Connection. CI526 to TC512/TC516
 - Cable length 1.80 m (5.9 ft.)
 - It is connected straight through
 - Remarks. Right hand angled hood in CI526 end.

CI527 Communication Interface

The communication interface CI527 is a half length PCI module which is mounted in a PCI slot in the Personal Computer. It is used in the AC 100 OPC Server. CI527 has two integrated twisted pair modems and is connected directly to the AF 100 bus.

Technical Data of Communication Interface CI527

CI527 can handle up to 3999 CDPs and have full functionality of a bus administrator which means it can be a bus master on the bus. It has the capability to both send and receive the time synchronization signal.