



EXOS 205T/EXOS 205-10T
Intelligent Ethernet Controller
Installation Guide

4200240-00 A

EXOS

INTRODUCTION

The EXOS 205 Series Intelligent Ethernet Controller boards are high-performance, intelligent, front-end communications processor boards that enable you to connect a PC to either an IEEE 802.3 or Ethernet local area network. ¹

With the EXOS 205T board, you can use either an external transceiver to connect to an Ethernet network or the board's internal transceiver to connect to a thin-Ethernet network.

With the EXOS 205-10T board, you can use either an external transceiver to connect to an Ethernet network or the board's internal transceiver to connect to a 10Base-T (twisted pair Ethernet) network.

With any one of the boards and the compatible protocol software - such as the LAN WorkPlace network software, available from Novell - your PC can communicate with other systems on the network that use compatible protocols.

The EXOS 205 Series boards are standard, full-size boards that fit into PC expansion slots. The boards use their own onboard CPU and dual-port RAM to execute network software.

1. In this manual, the term *PC* refers to the IBM PC, IBM PC XT, IBM PC AT, or any compatible machine, unless otherwise indicated. The term *EXOS 205 board* refers to the EXOS 205T and the EXOS 205-10T boards, unless otherwise indicated. The term *Ethernet* refers to both Ethernet and IEEE 802.3 networks.

Board Features

The EXOS 205T and EXOS 205-10T boards provide the following features:

- Full plug compatibility with the IBM PC and PC-compatible computers
- Easy to install
- Intel 80186 CPU operating 8 MHz
- Intel 82586 LAN coprocessor
- 256 Kbytes of RAM, upgradable to 512 Kbytes of RAM
- 16-bit interface that operates in 8-bit or 16-bit slots
- Internal transceiver for thin Ethernet network (EXOS 205T board only) or for 10Base-T network (EXOS 205-10T board only)
- Transceiver power protection
- Support for external Ethernet (Versions 1.0 and 2.0) and IEEE 802.3 transceivers

Also included with the EXOS 205T and EXOS 205-10T boards is a driver for NetWare 286. When used with the NOVELL LAN WorkPlace TCP/IP protocol software, it provides link-level CSMA/CD LAN drivers for Novell's NetWare 286 Version 2.1x and NetWare 286 Version 2.0a workstation shells, internetwork bridges, and file servers. Installing this driver is described in Appendix B.

Board Specifications

The EXOS 205 Series Intelligent Ethernet Controllers conform to the standard IBM PC form factor. Either board can easily be installed in any vacant expansion slot in the PC.

The EXOS 205 boards are compatible with IEEE 802.3 and Ethernet (Versions 1.0 and 2.0) external transceivers. In addition, the EXOS 205T board has an internal transceiver for operation on a thin-Ethernet network, and the EXOS 205-10T board has an internal transceiver for operation on a 10Base-T network.

The EXOS 205 board specifications are listed below:

General Features

CPU:	Intel 80186 operating at 8 MHz
Memory:	
EXOS 205T:	256 Kbytes dual-port RAM
EXOS 205-10T:	256 Kbytes dual -port RAM
Compliance:	IEEE 802.3 and Ethernet (Versions 1.0 and 2.0)

Host Interface

Bus:	8-bit or 16-bit, IBM PC-compatible
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Physical Dimensions

13.13in. x 4.2 in. (33.34 cm x 10.66 cm)
(conforms to standard IBM PC form factor)

Power Requirements

+5 V:	2.2 amps typical 2.5 amps maximum
+12V:	0.2 amps typical 2.5 amps maximum

Operating Environment

Temperature:	32°F to 122°F (0°C to 50°C)
Relative Humidity:	0% to 90% noncondensing

CONFIGURING THE BOARD

Before you install an EXOS 205T or EXOS 205-10T board in a PC, you should make sure that its default configuration is suitable for your PC. As shipped from the factory, the EXOS boards are configured as follows:

- Memory window location: CC000H to CFFFFH
- I/O address: 310H to 314H
- Interrupt level: 2(XT), 9 (AT)
- Ethernet Version 2.0 external transceiver; Signal Quality Error (SQE) test enable
- EXOS 205T only: Connection to thin-Ethernet network
- EXOS 205-10T only: Connection to 10Base-T (twisted-pair Ethernet) network
- Automatic bus sizing: 16 bits (when the board is installed in a 16-bit slot); 8 bits (when installed in an 8-bit slot)
- Custom boot PROM disabled

Normally, you do not need to change the default board configuration.



If you can use the default board configuration, you do not need to read the rest of this chapter. Skip to Chapter 3, *Installing the Board and Connecting to the Network*. If you need to change the board configuration, continue with this chapter.

Table 2-1 lists interrupt, I/O base, and memory base values used by common PC devices. If any of these devices are installed in your PC,

program, as discussed in Chapter 3. (In the configuration program, you change the SIGNAL parameter.)

Selecting External or Internal Transceiver

The EXOS 205 boards can be configured to use external transceivers or internal transceivers. The EXOS 205T board contains a 10Base-2 (Thin-Ethernet) transceiver and the EXOS 205-10T board contains a 10Base-T (Unshielded Twisted Pair) transceiver.

The switch S1 is used to select internal or external transceiver. External transceiver is selected when the switch is set in the ENET position (towards the 15-pin D-connector). Also make sure that the jumper J2 is set correctly for the type of transceiver to be used. When the J2 jumper is set the Signal Quality Error (SQE) test is disabled allowing older types of transceivers to be used.

Internal transceiver is selected by moving the S1 switch away from the ENET position (towards the BNC or RJ-45 connector). The J2 jumper should also be removed when this position is selected.



EXOS 205

Installation and Diagnostics

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DISK 1 OF 1