

## Overview

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The Apple® TokenTalk®NBCard is an expansion card that allows personal computers in the Macintosh II family of systems to connect to IBM and IBM-compatible Token-Ring networks. Because the card supports a variety of network environments, including AppleTalk®, 3270, APPC, and SMB, users can access local area network (LAN) and main-frame-based services connected to the Token-Ring.

The Apple TokenTalkNBCard is an intelligent NuBus<sup>®</sup> interface card that has its own 68000 microprocessor, memory, and multi-tasking operating system. Operating independently of the main

Macintosh II processor, the card supports the concurrent execution of multiple networking protocols with minimal access to the Macintosh II processor and operating system. It incorporates the industry-standard Texas Instruments TMS380 chipset for all Token-Ring access functions. And because all the communications processing is done on the card, your Macintosh II is free to run other Macintosh applications.

The Apple TokenTalkNBCard is compatible with the IEEE 802.5 Media Access Control (MAC) standard for Token-Ring networks, as well as the IEEE 802.2 Logical Link Control (LLC) standard for

higher-level software access to 802.5 facilities. The card transmits and receives data at 4 megabits per second, and interoperates with other IEEE 802-compatible Token-Ring interface cards at the physical and data link layers.

# Features

# Benefits

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- Connection to IEEE 802.5 and 802.2 industry-standard Token-Ring networks

- Provides Macintosh access to network-based applications, services, and data.
- Supports the IBM cabling system.

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- Support for AppleTalk protocols and services

- Allows access to network-based services via a single cabling system.
- Provides access to AppleTalk services at 4 megabits per second.

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- Texas Instruments' TMS380 Token Ring chipset

- Ensures compatibility with the IEEE and IBM Token-Ring standards.

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- Based on the Macintosh Coprocessor Platform<sup>®</sup>

- Handles all communications processing for the Macintosh II.
- Allows concurrent execution of multiple networking protocols.

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- Support for Apple and third-party network services

- Enables the user to choose from a range of network environments.

# TokenTalk Software and SMB File Transfer Utility (included with Apple TokenTalk NB Card)

## TokenTalk Software

Apple's TokenTalk software, which is compatible with AppleTalk Phase 2, brings the advantages of the AppleTalk network system to standard Token-Ring networks. Personal computers in the Macintosh II family of systems can be connected to virtually any size Token-Ring network or internetwork while retaining access to all AppleTalk-based resources, such as Apple LaserWriter® printers and AppleShare® file and print servers.

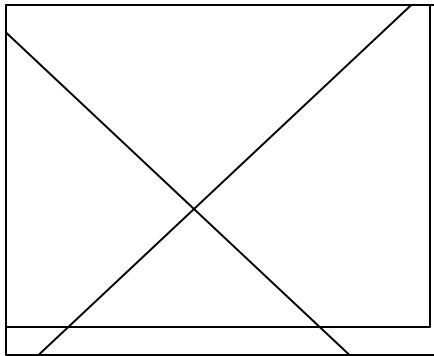
As part of the AppleTalk network system,

TokenTalk is completely transparent to the Macintosh user. After the user installs TokenTalk via a simple Macintosh program, AppleTalk services appear as they would on any AppleTalk network. Through the Control Panel desk accessory, the user can easily establish a link to the TokenTalk network. The Chooser desk accessory is then used to select AppleTalk network services.

The TokenTalk software provides the extended features of AppleTalk Phase 2.

AppleTalk Phase 2 permits users to build single networks of more than 64,000 Macintosh personal computers, and internetworks of more than 16 million Macintosh computers. And the TokenTalk software delivers AppleTalk network services concurrently with other Token-Ring services, such as MacDFT<sup>SM</sup> or MacAPPC<sup>SM</sup>.

Using network routers, such as the AppleTalk Internet Router, TokenTalk also allows easy user access to services on LocalTalk<sup>SM</sup> and EtherTalk<sup>SM</sup> networks.



### Features

- Support for AppleTalk Phase 2 protocols running over 802.5 Token-Ring networks
- Integration into the Macintosh desktop environment
- Support for source-routing bridges
- User-installable

### Benefits

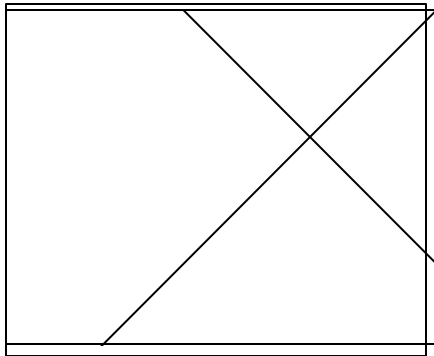
- Brings AppleTalk services to Macintosh users in Token-Ring environments.
- Provides consistency in network installation, connection, and access.
- Allows TokenTalk users to leverage their investment in IBM Token-Ring bridges.
- Installs quickly and easily.

## SMB File Transfer Utility

The SMB File Transfer Utility software allows users of Macintosh and IBM-compatible personal computers to exchange files to share information in their workgroups. Apple

Macintosh II systems attached to a Token-Ring network can access information on IBM PCLAN Program SMB (Server Message Block) file servers. Users can mount SMB volumes and transfer files between their Macintosh II systems

and the mounted volumes. The SMB File Transfer Utility uses the Apple File Exchange application (included) to transfer and translate files between Macintosh and MS-DOS formats.



### Features

- SMB protocols
- The Apple File Exchange application
- A desk accessory for accessing files on the SMB server

### Benefits

- Allows Macintosh computers to access IBM PCLAN Program SMB file servers.
- Runs concurrently with TokenTalk software and other TokenRing services
- Makes it easier to share data between difference operating environments.
- Allows files to be translated into an application-specific format
- Allow easy mounting and dismounting of SMB server volumes.



# Apple TokenTalk NB Card

## System Requirements

To use the Apple TokenTalk NB Card, you'll need:

- A personal computer in the Macintosh II family of systems
- One or more of the following applications:
  - TokenTalk software (AppleTalk

services over Token-Ring)

- SMB File Transfer Utility software (file transfer to and from SMB servers)
- MacDFT software (3270 emulation over Token-Ring)
- MacAPPC software (APPC

support over Token-Ring)

TokenTalk software and SMB File Transfer Utility software are included with the Apple TokenTalk NB Card. MacDFT software and MacAPPC software are available separately from Apple.

## Technical Specifications

**Connectors**

- DB-9 connector for attaching to the IBM cabling system
- External adapter (available from other suppliers) for use with Type 3 cabling

**Interface**

- NuBus; plugs into any Macintosh II computer

**Processor**

- Motorola 68000 running at 10 megahertz

**Memory**

- 512K of RAM

**Application interface**

- AppleTalk, Apple 3270 API, AFP

**Power dissipation**

- 15 watts

**Transmit/Receive data rate**

- 4-megabit-per-second on-board transceiver

## Ordering Information

Apple TokenTalk NB Card

Order No. M0237

With your order, you'll receive:

- Apple TokenTalk NB Card
- User Confidence Test disk
- TokenTalk Installer disk
- *TokenTalk User's Guide*
- SMB File Transfer Utility disk
- *SMB File Transfer Utility Software User's Guide*

Other platforms supported by the Apple TokenTalk NB Card

To run five-session 3270 emulation on the Apple TokenTalk NB Card, you'll need to order the MacDFT software. To run MacAPPC over TokenRing, you'll need the MacAPPC software.

Please refer to the following products sheets for descriptions of features and ordering information about these Apple products:

- Apple Coax/Twinax Card (M0063LL/A)

- MacDFT (M0064LL/A)
- MacAPPC (M0238LL/A)