

Token Ring adapters



Versatile, reliable and scalable solutions for mission critical corporate networks.

- **Networking with confidence**
- **Increased productivity**
- **Excellent choice and value**
- **Lower ownership costs**

The Way Forward for Token Ring

Madge Networks provides industry leading Token Ring adapters which operate at 100 Mbps, 16 Mbps or 4 Mbps for server, desktop, workstation or laptop network applications. Wire speed performance and easy integration into existing networks enable users to scale their network performance to meet the demands of new applications and leverage their investments in existing systems.

Networking with confidence

Since 1986, over 5 million Madge Networks' Token Ring adapters have been installed in mission critical networks. Madge Networks is committed to supporting the needs of all Token Ring users. By working closely with customers, PC vendors and industry groups we deliver innovative features, such as server adapter mirroring, load balancing and PCI Hot Plug, which offers unparalleled network resilience, reliability and performance.

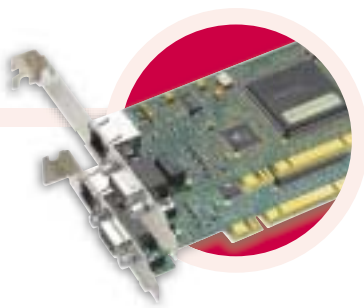
Increased Productivity

By delivering high performance, flexible and intelligent solutions, we help our customers maximize their investment in Token Ring. Users benefit from higher productivity, and IS staff spend less time with maintenance and more time in planning.

Lower ownership costs

Madge Networks helps network administrators to reduce the cost of managing and extend their networks.

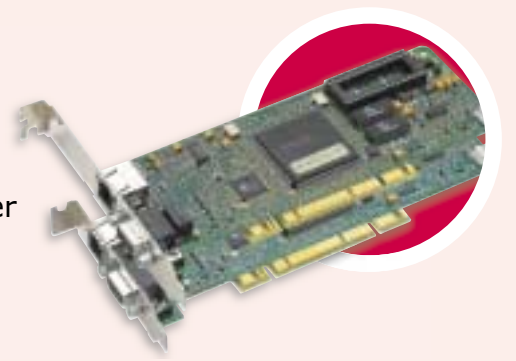
- Design innovation has driven down adapter ownership costs whilst reduced set-up costs are achieved through advanced driver software and installation utilities.
- Ongoing support costs are minimized through proven reliability and intuitive driver revision tools.
- Automatic adapter configuration and a single driver for all adapters help simplify complex environments. Desktops and servers can be connected at 4/16 Mbps or 100 Mbps full duplex without having to re-visit the PC.
- LAN Support Software, the single driver and utility software suite enables a common, easily maintained set-up for 16/4 Mbps and 100/16/4 Mbps connections in servers, laptops and desktops.
- Advanced utilities and unattended installation services reduces the burden of support.



Smart MK4 PCI Adapter

Standard and Low Profile Versions

Triple speed, Advanced Featured, Token Ring PCI adapter from the Token Ring market leader.

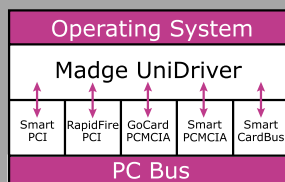


LAN Support Software (LSS)

LSS is a driver suite and utility set that reduces the cost of ownership for Madge Networks' Token Ring users. LSS offers single driver support across Madge Token Ring adapters. It features high performance, reliable network drivers and utilities which reduces support costs and improves the management and security of Token Ring networks.

Highlights

- Single, high performance, 'UniDrivers' for PCI and PC Card adapters, integrating Madge Smart, CardBus, RapidFire and GoCard Token Ring adapters
- Microsoft 'signed & certified' drivers for Microsoft Windows
- Enhanced server support: NetWare, NT, Linux, PCI Hot Plug, Adapter Mirroring
- Support for existing OS/2 & DOS NDIS environments
- Feature rich installation and configuration utilities



Key Features

Common Driver (UniDrivers) and utilities - enable new technology adoption and ease movement between network speeds and Operating Systems.

LSS Supports advanced features - ACPI power management, Wake-On-Lan, Adapter mirroring, Hot-Plug PCI.

LSS Utilities - aid installation, troubleshooting and desktop management and provide intuitive graphical utilities for configuration, diagnosis, online documentation, scripting, diskette creation driver revision management, desktop management interface and adapter status.

The Ultimate Adapters

Building on an installed base of over 5,000,000 Madge Networks' adapters, the Smart MK4 PCI Adapter and the Smart MK4 Low Profile PCI Adapter offer the ultimate Token Ring connection. Running at 4, 16 or 100 Mbps, with auto-ring speed sensing, autocable sensing and DTR, they are the perfect Token Ring adapter choice for all high performance server and workstation applications. Supported by Madge's LSS (LAN Support Software), offering unparalleled support for both new and legacy platforms and meeting demanding certification requirements, the Smart MK4 PCI adapters are the proven choice for servers, clients and workstations. Based on Madge Networks' proven 4th generation ASIC silicon, these adapters demonstrate Madge Networks' commitment to the needs of all Token Ring users. The Smart PCI MK4 adapters support the latest industry power, configuration and remote control initiatives to complement your future desktop management and support strategies, thus protecting and extending your investment for the future.

Key Benefits

- Highest performance with rich feature set
- Ultimate scalability and flexibility
- Low integration and maintenance overhead
- Proven technology with a market pedigree.

Specification

Smart MK4 PCI Adapter	
Network Type	IBM and IEEE 802.5 4/16Mbps shared Token Ring IEEE 802.5r 16 or 4 Mbps full duplex Token Ring IEEE 802.5t 100 Mbps full duplex Token Ring
Power Consumption	3W max
Bus Interface	PCI 2.1 and 2.2
Data Transfer	32-bit bus master
Media Connection	STP (9-pin D-type) and UTP (RJ45)
IRQ & I/O Configurations	Allocated by system
Agency Approval	CE approved, FCC Class B, EN550022 Class A (STP and UTP)
Dimensions	Smart MK4 PCI: 170mm x 120mm (including bracket) Smart MK4 Low Profile PCI: 170mm x 79.2mm (including bracket)
Weight	Smart MK4 PCI: 0.12 Kg approx Smart MK4 Low Profile PCI: 0.12 Kg approx
MTBF	950,000 hours
Temperature Range	0 - 50° C
Humidity Range	10 - 90% RH non-condensing
LAN Support Software	LSS: DOS, OS/2, Windows 95, 98, ME, NT, 2000, XP, Netware 3, 4, 5, 6, Linux
Supplementary Software	Unix, Solaris, Linux, HP-UX, Apple Macintosh
Management Software	DMI 2 agent for Win32
Specialist Software Features	Wake-on-LAN, Microsoft OnNow, PCI Hot Plug, Hot-standby, Server Adapter Mirroring

Features

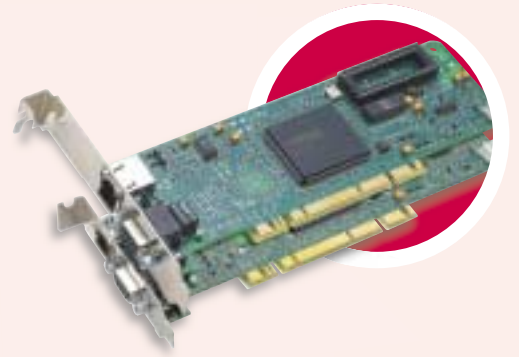
- Supported by Madge LSS
- Madge 4th generation ASIC technology
- Full profile (#51-05) or low profile (#53-05) versions
- Full duplex (DTR) 100/16/4 Mbps switched and 16/4 Mbps shared connectivity
- Automatic configuration with auto-sensing of speed, DTR and cable type
- Diagnostic LEDs to indicate adapter status
- Unattended installation
- Microsoft certified NDIS Miniport driver
- Windows 95, 98, ME, NT, 2000 and XP support
- Legacy DOS and OS/2 support
- Unique server resilience software
- Low CPU utilization for server applications
- PCI Hot Plug support for servers
- UNIX support (Unix, Solaris, HP-UX and Linux)
- Apple Macintosh drivers
- Intel/Microsoft PC99 compatible
- DMI2.0, PXE2/RPL remote boot option
- Remote power management (ACPI, OnNow, Wake-on-LAN)
- Promiscuous mode and high security non-promiscuous options
- Direct data streaming for reduced PC overhead
- Server mirroring
- Interacts with latest Windows applications to assert network priorities
- Online user guide and diagnostics.

RapidFire 3140

Standard and Low Profile Versions

16/4 Token Ring PCI Adapter

Cost-effective 16/4 Mbps adapter from the Token Ring market leader.



Madge Networks

Madge Networks is a global supplier of advanced networking product solutions to large enterprises, and is the market leader in Token Ring networking.

Madge Networks is committed to supporting the needs of Token Ring customers and its product strategy is to enable our customers to benefit from the integration of multiple network types whilst protecting and building upon their investment in Token Ring.

Our comprehensive and flexible end-to-end product solution for Token Ring has five key building blocks:

Smart Ringswitch

The Madge Smart Ringswitch family offers advanced 4/16/32/100 Mbps Token Ring switching and options that enable the cost effective and low risk integration of Gigabit, Ethernet or ATM with Token Ring.

Smart DeskStream

The Smart DeskStream is a 24-port Token Ring desktop switch that replaces, or enhances, the function of shared hubs.

Smart Wireless Access Server

Smart Wireless Access Server offers integration, security and management of wireless networks with Token Ring.

Madge Adapters and LAN Support Software

Madge PCI, PCMCIA and CardBus Token Ring adapters provide versatile and scalable connectivity for enterprise applications. LAN Support Software (LSS) is a suite of high performance, future proofed software that enables easy deployment, driver optimization and advanced management for Madge Token Ring adapters.

TrueView/32

TrueView/32 Enterprise combines powerful RMON capabilities with comprehensive graphical device management, enabling network administrators to configure, monitor and optimize their Token Ring networks.

High Performance 16/4 Mbps Adapter

The Madge RapidFire 3140 Token Ring 16/4 PCI adapter offers high performance, low CPU-utilization and support for the latest power management initiatives. Utilizing Madge LAN Support Software (LSS) ensures that the RapidFire 3140 adapter is easy to install, configure and maintain. With full power management support, the RapidFire 3140 enables network managers to reduce operating costs by powering on PCs to perform configurations and upgrades from a centralized location during non-disruptive periods. In common with all adapters in Madge's adapter family, the RapidFire 3140 is highly reliable, simple to install and easy to use. For example, during installation the RapidFire 3140 auto-configures network speed, media type and full-duplex capabilities. The RapidFire 3140 demonstrates Madge Networks' commitment to offering choice and value to all Token Ring customers.

Key Benefits

- High performance
- Rich feature set
- Low integration and maintenance overhead
- Low CPU utilization.

Features

- Supported by Madge LSS
- Madge 4th generation ASIC technology
- Full duplex (DTR) 16/4Mbps or 16/4 Mbps shared connectivity
- Automatic detection of network speed and cable type
- Diagnostics LEDs to indicate adapter status
- Extensive power management support (ACPI, OnNow, Magic Packet and Wake-on-LAN) improve manageability and reduce total cost of ownership
- Ultra low CPU utilization minimizes overhead
- Microsoft PC97/98 and Server 98 compliance
- PCI Plug and Play and Hot Plug support for ease of use
- Dual transmit DMA for traffic priority supports multimedia applications
- Wake-up cabling provides support for Intel and IBM legacy Wake-On-LAN implementation
- Standard PCI and Low Profile PCI Format versions
- DMI version 1&2 for trouble-free support of third-party management applications
- Optional Flash Prom for PXE/2 and RPL allows remote boot and customized installations.

Specification

RapidFire 3140 16/4 PCI Token Ring Adapter

Network Type	16 Mbps or 4 Mbps with auto speed detect 802.5, 802.5r and 802.2
Power Consumption	0,5 A @ 5V (normal power mode) 0,2 A @ 5V (power down mode with wake-up enabled)
Bus Interface	32-bit 33Mhz PCI2.1 and 2.2
Data Transfer	132 Mbps, zero wait state bursting
Media Connection	9-pin D sub-miniature for STP 8-pin RJ45 for UTP with on-board media filter
IRQ & I/O Configurations	Allocated by system
Agency Approval	CE approved, FCC Class B, EN550082-1 Class A (UTP and STP)
Dimensions	3140 RapidFire V2: 170mm x 120mm (including bracket) 31-04 RapidFire Low Profile: 170mm x 79.2mm (including bracket)
Weight	0.13KG approx
MTBF	1,644,737 hours
Power Management	ACPI version 1.0 compliant Device Class Power Management Reference Specification, Network device Class revision 1.0 compliant. Supports legacy wake-up cabling according to Intel and IBM recommendations
Temperature Range	0 - 50° C
Humidity Range	10 - 90% RH non-condensing
LAN Support Software	LSS: DOS, OS/2, Windows 95, 98, ME, NT, 2000, XP, Netware 3, 4, 5, 6, Linux
Supplementary Software	Unix, Solaris, Linux, HP-UX, Apple Macintosh
Management Software	DMI 2 agent for Win32
Specialist Software Features	Wake-on-LAN, Microsoft OnNow, PCI Hot Plug, Hot-standby

Smart CardBus 16/4 Token Ring Adapter

Superior laptop connectivity
from the Token Ring market leader.



Full Switching to the Desktop

The only desktop switching solution to provide genuine investment protection for the price of a shared hub.

The Smart DeskStream



Customer Benefits:

- Boosts productivity and workgroup performance
- Maintain and extend your Token Ring investment
- Scalable with network integration options
- Cost-effective network solution

Find Out More at:
www.madge.com/deskstream

High Performance mobile connectivity from the Token Ring market leader

The Madge 16/4 CardBus Mk2 is a 32-bit PC Card adapter offering PCI-like performance for portable users connected to their corporate Token Ring network. It supports the latest power management initiatives and has wide driver support. The Madge 16/4 CardBus adapter uses the same driver software suite (LAN Support Software) as other Madge adapters. The single driver benefits, such as simplified rollout and reduced maintenance cost, across your organization, demonstrates Madge Networks' commitment to creating value for all Token Ring users.

Key Benefits

- Proven Token Ring CardBus solution with a solid track record
- Excellent price / performance
- Wide OS support
- Low integration and maintenance overhead.

Features

- Full duplex or shared 16/4 Mbps Token Ring connectivity
- Automatic configuration and ring speed detection
- Compliant with Microsoft PC98, 99 design guidelines
- Remote power management (ACPI, OnNow, Wake-on-LAN)
- Promiscuous mode and high security non-promiscuous options

Specification

Madge 16/4 CardBus PC Card Adapter

Network Type	IBM and IEEE 802.5 16 or 4 Mbps shared Token Ring IEEE 802.5r 16 or 4 Mbps full duplex Token Ring
Power Consumption	1.8W max
Bus Interface	PC Card 7, 32 bit, 33Mhz
Media Connection	STP (9-pin D-type) and UTP (RJ45)
IRQ & I/O Configurations	Allocated by Card Services software
Agency Approval	CE approved, FCC Class B, EN550082-1 EN550022 Class B
Dimensions	86mm x 54mm
Weight	0.05KG approx
MTBF	1,200,000 hours
Temperature Range	10 - 50° C
Humidity Range	10-90% RH non-condensing
LAN Support Software	LSS: DOS, OS/2, Windows 95, 98, ME, NT, 2000, XP, Netware 3, 4, 5, 6, Linux
Supplementary Software	Unix, Solaris, Linux, HP-UX, Apple Macintosh
Management Software	DMI 2 agent for Win32

Smart 16/4 PCMCIA MK2 Adapter

Mobile simplicity and performance
from the Token Ring market leader.



Simple, Robust and Flexible

The Madge Smart 16/4 PCMCIA MK2 is an efficient and fully featured credit card sized Token Ring adapter for use in the PCMCIA/PC Card slots of portable computers, providing mobile users with a simple, robust and flexible solution for Token Ring connectivity. The specially designed connector accommodates the greater physical demands of mobile use.

Key Benefits

- Easy to install and use
- Robust and reliable
- Low integration and maintenance overhead
- Hot swap and dual docking for ultimate flexibility.

Features

- High performance
- Supported by Madge LSS
- Adapter resident Smart software for multi-protocol drivers
- Uses the same configuration utilities as other Madge adapters

- Robust connector for reliability, whilst accommodating X-Jack modems
- Simple installation means easy deployment
- Support for Hot-swapping and Winsock
- Dual docking configurations enabling use of a PCMCIA adapter in or out of the docking station

Specification

Smart 16/4 PCMCIA MK2 Adapter	
Network Type	4 Mbps or 16 Mbps IBM and IEEE 802.5 Token Ring
Power Consumption	1.8W max
Supply Voltage	+5V DC ±5%
Bus Interface	PCMCIA
Data Transfer	32-bit PIO & 16-bit MMIO
Media Connection	STP (9-pin D-type) and UTP (RJ45)
Memory	512 Kb dynamic RAM on-board
IRQ & I/O Configurations	Allocated by system
Agency Approval	FCC Class A, EN550022 Class A, EN50082-1
Dimensions	86mm x 54mm x 5mm
Weight	0.04 Kg approx
MTBF	1,636,661 hours
Temperature Range	0 - 70° C
Humidity Range	10 - 80% non-condensing
LAN Support Software	LSS: DOS, OS/2, Windows 95, 98, ME, NT, 2000, XP, Netware 3, 4, 5, Linux
Supplementary Software	Unix, Solaris, Linux, Apple Macintosh G3 MAC OS 9.x

GoCard 3221 PCMCIA Adapter

Mobile simplicity and performance
from the Token Ring market leader.



High Throughput Adapter

The GoCard 3221 from Madge Networks combines market-leading parallel-tasking performance with Plug and Play ease of installation to provide a competitively priced, mobile, LAN connectivity tool. An industry-standard Type-II PC Card, the GoCard features technology which boosts productivity by providing superior throughput from the LAN to the computer's memory, whilst offering value for money.

Key Benefits

- Easy to install and use
- Low integration and maintenance overhead
- High throughput
- Integrated media filter.

Features

- Supported by Madge LSS
- High throughput
- Easy to install and use
- Flexibility and versatility
- Robust and reliable
- Wide OS support

- Software-selectable 4 or 16 Mbps network speed
- Integrated media filter for both STP and UTP cabling
- Desktop Management Interface (DMI) compliant

Specification

GoCard 3221 PCMCIA Adapter	
Network Type	4 Mbps or 16 Mbps (software selectable)
Card Type	Type-II PC Card, Version 2.01
Memory	On-board memory: 128 Kb for transmit / receive buffers and for download of protocols
Media Connection	8-pin RJ45 for UTP installations or UTP/STP converter for STP installations
Agency Approval	For shielded cables: FCC Rules and Regulations Part 15 Class B, CISPR 22 / 1985 Class B, EN55022 / 1987 Class B, EN50082-1 For unshielded cables: FCC Rules and Regulations Part 15 Class A, CISPR 22 / 1985 Class A, EN55022 / 1987 Class A, EN50082-1
Dimensions	85.6mm x 54mm x 5mm
MTBF	>600,000 hours
Temperature Range	10 - 40° C
Humidity Range	8 - 80% non-condensing
LAN Support Software	LSS: DOS, OS/2, Windows 95, 98, ME, NT, 2000, XP, Netware 3, 4, 5, Linux



Ordering information

Smart MK4 PCI

Part Number	Description
51-05	Smart MK4 PCI Adapter, single
51-25	Smart MK4 PCI Adapter, 100 pack
53-05	Smart MK4 Low Profile PCI Adapter, single
53-25	Smart MK4 Low Profile PCI Adapter, 100 pack
83-11	RPL/PXE2 boot ROM, single
83-15	RPL/PXE2 boot ROM, 10 pack

RapidFire 3140

Part Number	Description
3140 2010	RapidFire 3140 V2 16/4 TR PCI Adapter, single
3140 2110	RapidFire 3140 V2 16/4 TR PCI Adapter, 100 pack (100 single packs plus one copy of LSS software on CD)
31-04	RapidFire 3140 Low Profile PCI Adapter, single
31-24	RapidFire 3140 Low Profile PCI Adapter, 100 pack
87-21	RPL/PXE2 boot ROM for RapidFire 3140, single pack (3140 V2)
87-22	RPL/PXE2 boot ROM for RapidFire 3140, 10 pack (3140 V2)

Smart CardBus 16/4

Part Number	Description
20-03	Madge 16/4 CardBus, single
20-23	Madge 16/4 CardBus, 100 pack

Smart 16/4 PCMCIA

Part Number	Description
20-01	Smart 16/4 PCMCIA MK2 Adapter, single pack
20-04	Smart 16/4 PCMCIA MK2 Adapter, 100 pack
70-09	STP/UTP Cable Set

GoCard 3221 PCMCIA

Part Number	Description
3221 9723	GoCard Token Ring C30 PC Card, RJ45, STP - single
3221 9793	GoCard Token Ring C30 PC Card, RJ45, STP - 100 pack (100 single packs plus one copy of LSS software on CD)
3221 3010	GoCard Token Ring C30 PC Card, RJ45 - single
3221 3900	GoCard Token Ring C30 PC Card, RJ45 - 100 pack (100 single packs plus one copy of LSS software on CD)

Lan Support Software

Part Number	Description
87-14	LSS on CD

For more information about
Token Ring Adapters:

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