8230 Controlled Access Unit Models 04A and 04P



Small office, branch office, your office...affordable token-ring concentration

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Highlights

The IBM 8230 Controlled Access Unit Models 04A and 04P are suitable for a variety of environments in which low-end token-ring concentration is required. Like the IBM 8228 and 8226, they offer basic concentration at a reasonable price per port. They are ideally suited for remote branch offices, for example, in the banking, insurance, real estate, and transportation industries. With the addition of a Ring-In/Ring-Out feature, and with the built-in capability for management by Common Management Information Protocol over Logical Link Control (CMOL) or Simple Network Management Protocol (SNMP), Models 04A and 04P can also participate in larger LANs, connected to other models of the 8230, 8250, and 8260. This ability to grow from a single LAN segment to participation in a fully managed, multiple LAN configuration is a key advantage of Models 04A and 04P and a protection of customer investment.

Model 04A is an active model, in which the token-ring signal is retimed and amplified. Model 04P is for a passive configuration, in which retiming is not a requirement. Both models have 16 shielded, RJ-45 ports for device attachment, an EIA 232 port for out-of-band management, and a slot for the optional Ring-In/Ring-Out feature (which is announced today for customer planning, and will be available in December of 1995). The copper ring-in/ring-out feature has shielded RJ-45 connectors; the optical fiber feature has ST connectors for multimode fiber. Models 04A and 04P can be installed as desktop concentrators or can be rack mounted. Network management, described in more detail later, is available for either a CMOL application such as LAN Network Manager for OS/2 (Version 2.0 or later) or an SNMP platform such as LAN Network Manager for AIX. In addition, four token-ring Remote Monitoring (RMON) groups will be supported by September of 1995.

In summary, these models bridge the gap in product offerings between the limited-function, low-price, single-media, unmanaged offerings like the 8228 and 8226, and the higher function, fully managed, multiple-media models like the 8230 Models 003, 013, and 213.

Cabling

The following wiring types are supported:

- Shielded twisted pair (STP)
- Categories 3/4/5 unshielded twisted pair (UTP)
- Multimode fiber (ST connector) for Optical Fiber RI/RO Module

Device attachment

Models 04A and 04P give you these options for attaching devices to the concentrator:

- Attach up to 16 devices via active (04A) or passive (04P) RJ-45 connections.
- Attach a Ring-In/Ring-Out module to connect Model 04A or 04P to a main ring using RJ-45 STP or optical fiber media.

Network management

Models 04A and 04P can operate in a small network with no management or in a managed environment supporting either CMOL or SNMP management. In addition, they can be managed with other vendors' equipment and do not need their own management devices. The 8230s can be centrally managed locally or remotely, using out-of-band management available through the units' EIA 232 port.

Management of Models 04A and 04P in CMOL mode is supported by Version 2 of IBM LAN Network Manager for OS/2. Local support on the LNM for OS/2 workstation will be offered in a PTF to LNM V2 by June of 1995 (see announcement letter 294-549). Models 04A and 04P are CMOL enabled and can be managed by LNM V2.0 and the PTF.

LNM for OS/2 V2 provides full management of the 8230s including time-of-day access control, password security for configuration changes, enabling and disabling of ports, and remote microcode update. LNM offers a graphical display of the hub with color-coded indications of port status.

NetView for S/390 management of the 8230s through an SNA session connection to LNM V2 will be enabled in a later PTF to LAN Network Manager.

NetView MultiSystem Manager will provide support of Models 04A and 04P no later than 1Q96. SNMP management of Models 04A and 04P is provided by IBM LAN Network Manager for AIX running on the NetView for AIX platform. LNM for AIX provides full management of the 8230s, including time-of-day access control, enabling and disabling of ports, remote microcode update, and token-ring segment utilization. Support for Models 04A and 04P will require PTF U437143, available in June of 1995.

The NetView for Windows platform code and the 8230 product-specific code for Models 04A and 04P are available in a single package. (Please see the announcement of IBM Nways Manager

for Windows for specifics.) Models 04A and 04P support the following Remote Network Monitoring Management Information Base (RMON) groups as described in RFC1271 - Remote Network Monitoring Management Information Base and RFC1513 - Token-Ring Extensions to the Remote Network Monitoring MIB:

- The Token-Ring MAC-Layer Statistics Group collects information, including error reports, from MAC layer frames on the local ring.
- The Token-Ring Ring Station Group contains statistics and status information associated with each token-ring station on the local ring.
- The Token-Ring Ring Station Order Group provides the order of the stations on the ring.
- The Token-Ring Ring Station Config Group manages token-ring stations through active means. Stations on the ring can be removed or have configuration information downloaded from them.

Any RMON-compliant manager can be used to provide management of this agent within the 8230.

This RMON capability will be available by September of 1995.

Improved reliability

Models 04A and 04P provide a variety of capabilities that ensure your network continues to function smoothly. These include:

- Self-correcting connections that reduce downtime and automate recovery from many network faults.
- Beacon recovery algorithms that quickly isolate and remove faults that cause beaconing. This lets you restore normal operation to the network and allows applications to continue network services.
- Network management via SNMP or CMOL that lets you monitor, diagnose, and repair the network more easily. In addition, remote management saves money by reducing the need to travel to the network site to diagnose and repair problems.

What you get

The IBM 8230 Controlled Access Unit Models 04A and 04P are packaged with the following items:

- Installation and Service Guide
- Reference Information Card
- Service Facility Kit - includes Reference Guide and CMOL and SNMP diskettes
- Power cord

For more information

To learn more about Models 04A and 04P call your IBM marketing representative or IBM Direct at 1-800-IBM-CALL. Or contact your local IBM authorized remarketer.

IBM 8230 Controlled Access Unit Model 04A and 04P at a glance		
Machine type	8230 Model 04A 8230 Model 04P	PN 25H5412 PN 25H5440
Features	Model 4 RJ45 RI/RO Model 4 Optical Fiber RI/RO	PN 25H5450 PN 25H5458
Protocol	IEEE 802.5 token-ring at 4 or 16 Mbps (switch-selectable)	
Module support	One Ring-In/Ring-Out module	Shielded RJ-45 or optical fiber
Management	SNMP or CMOL	
Error and status displays	LEDs for power, unit, and individual port status	Hex display for error codes and diagnostic messages
Switches	4- or 16-Mbps ring speed	CMOL or SNMP management mode (appropriate microcode level is required)
Physical specifications	Width: 440.00 mm (17.32 in.) Height: 85.00 mm (3.35 in.)	Depth: 407.00 mm (16.02 in.) Weight: 5.4 kg (12.0 lb)
Operating Environment	Temperature: 50° to 104°F (10° to 40°C) Electrical power: 0.05 K va	Relative humidity: 8% to 80% Noise level: 45 dB
Warranty	One year	

Features	**Benefits**
Device attachment	Provides affordable concentration for as few as 1 or as many as 16 devices Accommodates incremental network growth
Ring-In and Ring-Out modules	Provide connection between the main ring path and Models 04A or 04P Support RI/RO via optical fiber or shielded RJ-45
Cable choices	Support Category 3/4/5 UTP cable and STP cable
EIA 232 communications port	Provides out-of-band SNMP initialization port via CCMF. Provides CCMF service port function in SNMP and CMOL.
Flash memory	Lets you update microcode via software download
Faster processor	Speeds download to flash memory
Error and status displays	Simplify troubleshooting and performance monitoring
Compatibility with other 8230 products	Preserves your equipment investment Standardizes network equipment requirements Coexists with other token-ring concentrators and hubs
Automatic speed detection	Reduces errors and simplifies management Helps avoid network interrupts

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