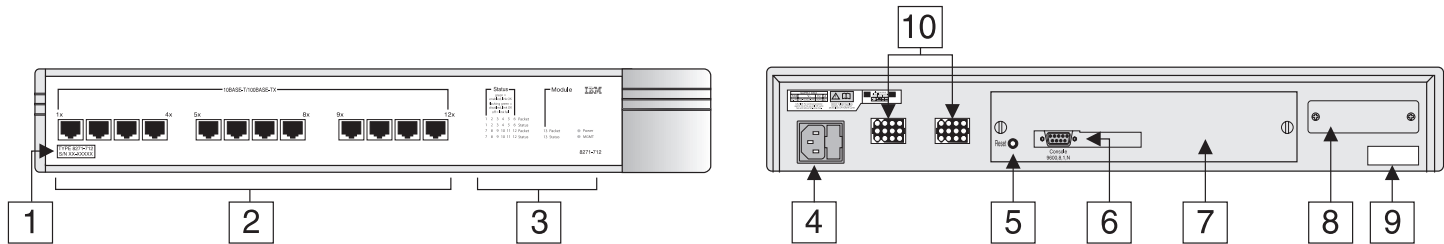




8271 NWAYS ETHERNET LAN SWITCH MODEL 712 QUICK REFERENCE GUIDE

8271 Model 712 Switch Features



- 1 Unit Serial Number** You may need this serial number for fault reporting purposes.
- 2 12 Auto-negotiating 10BASE-T / 100BASE-TX Ports** Allow connection to Ethernet or Fast Ethernet devices over a maximum length of 100m (328 ft) using data grade category 5 twisted pair cable. Each port is configured as MDIX (cross-over).
- 3 Status LEDs** Provide a quick source of fault diagnosis. Refer to "Checking Status Using the LEDs" overleaf.
- 4 IEC Power Inlet** Connect the power cord to supply mains power to the Switch. Note that there is no ON/OFF switch.
- 5 Reset Button** Pressing the Reset button simulates a power-off/on cycle for the Switch.
- 6 Console Port** Connect a local terminal to access the VT100 interface for out-of-band management. Configuration is set to auto-baud, 8 data bits, no parity and 1 stop bit.
- 7 Plug-in Module Slot** Remove the blanking plate to install an optional Plug-in Module and so provide an additional Fast Ethernet or ATM link.
- 8 Unused Blanking Plate** This is sealed. Please do not attempt to remove it.
- 9 Ethernet Address** This label shows the unique Ethernet (or MAC) address assigned to the unit.
- 10 Advanced Redundant Power System (RPS) Sockets** Use *one* of these sockets to connect an Advanced RPS. For further information, refer to the documentation that accompanies the Advanced RPS.

Checking Status Using the LEDs

| LED | Color | Indicates |
|---|-------------------------------------|--|
| Port Status LEDs (ports 1–12) | | |
| Packet | Yellow | Frames are being transmitted/received on the port. |
| Status | Green | Link is present; port is enabled. |
| | Green flashing | Link is present; port is disabled. |
| | Off | Link is not present. |
| Plug-in Module Status LEDs (port 13) | | |
| Packet | Yellow | Frames are being transmitted/received on the Plug-in Module port. |
| Status | Green | Link is present; port is enabled. |
| | Green flashing | Link is present; port is disabled. |
| | Green flashing (long on, short off) | Refer to the "IBM 8271 Nways Ethernet Switch ATM OC-3c Module User's Guide". |
| | Yellow | Plug-in Module has failed its Power On Self Test (if the MGMT LED is flashing yellow), or the agent software of the Plug-in Module is not installed correctly. |
| | Yellow flashing | Plug-in Module is not recognized. |
| | Off | Link is not present or Plug-in Module is not installed in the Switch. |
| Unit Status LEDs | | |
| Power | Green | Switch is powered-up. |
| MGMT | Green | Switch is operating normally. |
| | Green flashing | Switch or Plug-in Module is either downloading software or initializing (which includes a Power On Self Test). |
| | Yellow | Switch has failed its Power On Self Test. |
| | Yellow flashing | Plug-in Module has failed its Power On Self Test. |

Default Settings

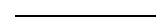

| | |
|--|--|
| Port Status | Enabled |
| Port Speed | Fixed 10BASE-T / 100BASE-TX ports are auto-negotiated, Fast Ethernet Plug-in Module ports are 100Mbps, ATM OC-3c Plug-in Module ports are 155Mbps. |
| Intelligent Flow Management | Enabled |
| Duplex Mode | Fixed 10BASE-T / 100BASE-TX ports are auto-negotiated, Fast Ethernet Plug-in Module ports are half duplex. |
| Virtual LANs | All ports use Port VLAN Mode and belong to the Default VLAN (VLAN 1) |
| PACE | Disabled |
| Spanning Tree (STP) | Disabled |
| Power On Self Test (POST) | Normal (Fast Boot) |
| System Alarm (broadcast bandwidth used) | Enabled <ul style="list-style-type: none">■ High threshold: 20% — Notify and blip■ Low threshold: 10% — No action |
| System Alarm (errors per 10,000 packets) | Enabled <ul style="list-style-type: none">■ High threshold: 2% — Notify■ Low threshold: 1% — No action |
| System Alarm (bandwidth used) | Enabled <ul style="list-style-type: none">■ High threshold: 85% — No action■ Low threshold: 50% — No action |
| System Alarm (percentage of frames forwarded) | Enabled <ul style="list-style-type: none">■ High threshold: 85% — No action■ Low threshold: 50% — No action |

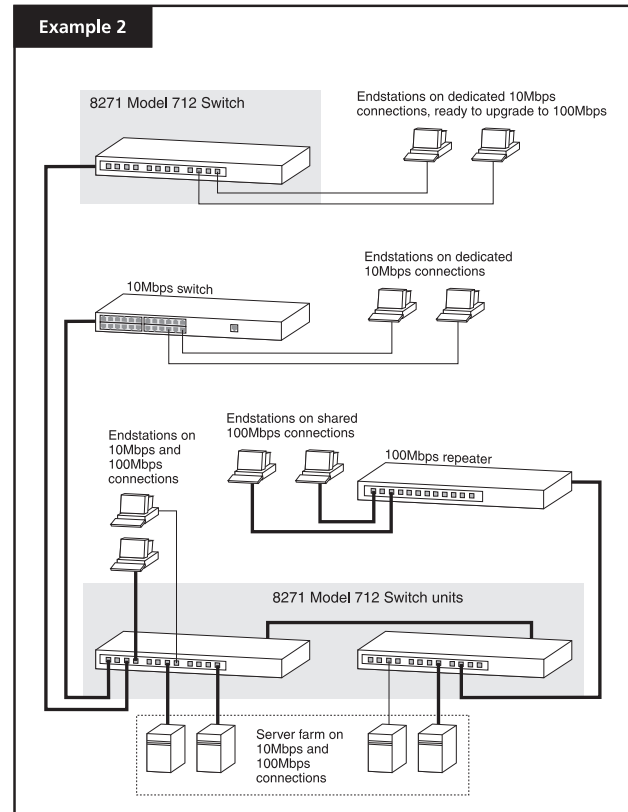
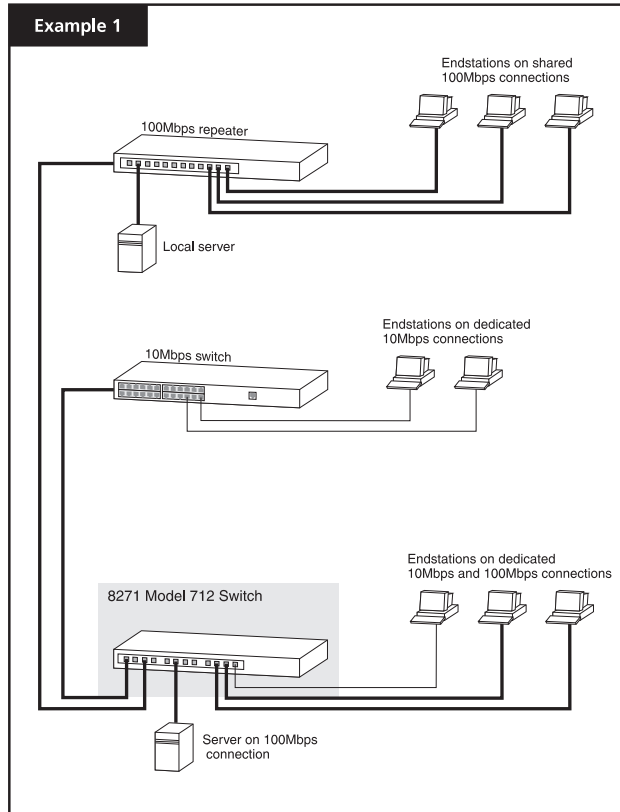
Network Configurations

Example 1 shows the 8271 Model 712 Switch used in a data-center.

Example 2 shows how port density can be increased by connecting two 8271 Model 712 Switch units together.

Key:

-  10Mbps link
-  100Mbps link



Managing the Switch

The Switch can be managed using any of the following methods:

- Accessing the VT100 interface from a local terminal connected to a Console Port on the rear of the Switch.
- Accessing the VT100 interface from a remote terminal over a TCP/IP network using a VT100 emulation facility such as Telnet.
- Using an SNMP Network Manager.

For convenience the VT100 screen map is shown below.



If an ATM OC-3c Module is installed in the Switch, extra screens are available.

