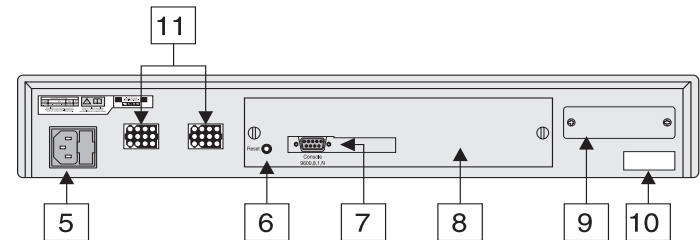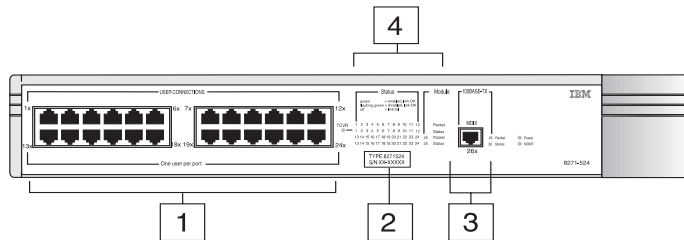# IBM 8271 Nways Ethernet LAN Switch Model 524 Quick Reference Guide

8271 Model 524 Switch Features

1 **24 x 10BASE-T Ports** Connect up to 24 devices over a maximum length of 100m (328ft) using data grade category 3, 4, or 5 UTP cable. Each port is configured as MDIX (cross-over).

2 **Unit Serial Number** You may need this serial number for fault reporting purposes.

3 **100BASE-TX Port** Connect a single local server or use as a 100Mbps backbone link. Use data grade category 5 UTP or STP cable over a maximum length of 100m (328ft). This port is configured as MDIX (cross-over).

4 **Status LEDs** Provide a quick source of fault diagnosis. Refer to "Checking Status Using the LEDs" overleaf.

5 **IEC Power Inlet** Connect the power cord to supply mains power to the Switch. Note there is no ON/OFF switch.

6 **Reset Button** Pressing the Reset button simulates a power-off/on cycle for the Switch.

7 **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.

8 **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.

9 **Transceiver Module Slot** Remove the blanking plate to install a Transceiver Module and so provide an additional 10Mbps link.

10 **Ethernet Address** This label shows the unique Ethernet (or MAC) Address assigned to the unit.

11 **Redundant Power System (RPS) Sockets** Use *one* of these sockets to connect an RPS. For further information, refer to the documentation that accompanies the RPS.

Checking Status Using the LEDs

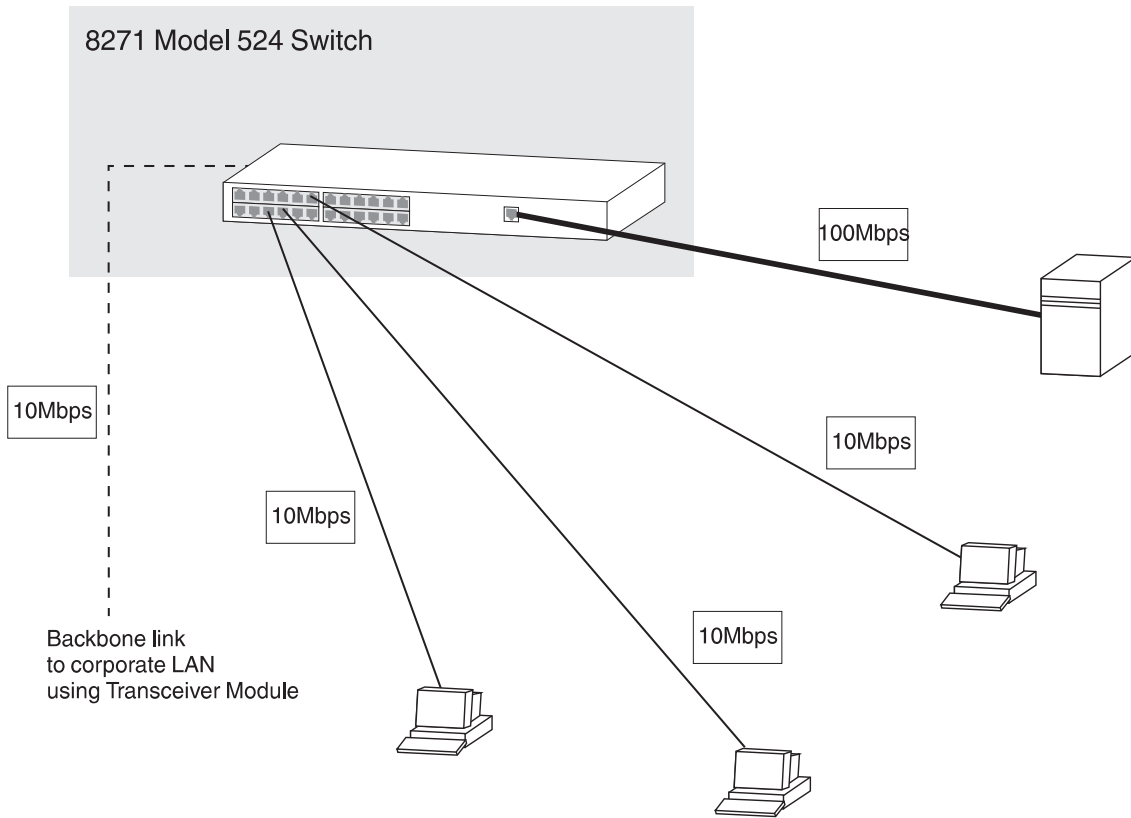| LED	Color	Indicates
TCVR	Yellow	Port 1 is a Transceiver Module fitted to the rear of the unit.
Port Status LEDs		
Packet	Yellow	Frames are being transmitted/received on the port.
Status	Green	Link is present; port is enabled.
	Green flashing	Link is present; port is disabled.
	Off	Link is not present.
Plug-in Module Status LEDs		
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 LAN 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
Forwarding Mode	Fast Forward
Intelligent Flow Management	Enabled
Duplex Mode	Half duplex on all relevant ports
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 ■ High threshold: 20% — Notify and Blip ■ Low threshold: 10% — No action
System Alarm (errors per 10,000 packets)	Enabled ■ High threshold: 2% — Notify ■ Low threshold: 1% — No action
System Alarm (bandwidth used)	Enabled ■ High threshold: 85% — No action ■ Low threshold: 50% — No action
System Alarm (percentage of frames forwarded)	Enabled ■ High threshold: 85% — No action ■ Low threshold: 50% — No action

Network Configuration

The following illustration shows how the Switch can be placed on your network. In this example, the Switch is used for a group of heavy-traffic users in a large corporate network. Switching is brought to the desktop with a single endstation per port, and local servers are connected using the 100Mbps Fast Ethernet link.

8271 Model 524 Switch

100Mbps

10Mbps

10Mbps

10Mbps

10Mbps

Backbone link
to corporate LAN
using Transceiver Module

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.

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

```
Main Banner — Logon — Main Menu
                          |
   ┌──────┬──────┬────────┼────────┬──────┬──────┬──────┐
Switch   User Access  Status  Management  Software  Initialize  Reset  Remote
Management  Levels            Setup       Upgrade                      Poll
   |         |           |        |
   |         |        Fault Log  Trap    Console
   |         |                   Setup   Port
   |         |
   |    ┌────┼────┬──────┬──────┐
   |  Local  Create  Delete  Edit
   |  Security User   Users   User
   |
┌──┴──┬──────┬──────┬──────┬──────┬──────┬──────┬──────┬──────┬──────┬──────┐
Port   Port    Port     Port   Unit      Unit      Unit       Unit   VLAN   VLAN    VLAN
STP   Statistics Resilience Setup Statistics Database Resilience Setup  STP    Server  Setup
       |
   ┌───┴───┐
Port Traffic  Port Error
Statistics    Analysis
```

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