



J-TECH DIGITAL®

V1.0

USER MANUAL



24 Port AVoIP Network Switch

JTD-3136 | JTECH-NS24V3



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Scan the QR code below or visit
<https://resource.jtechdigital.com/products/3136>
to view and access detailed digital
resources regarding this unit.



Safety Instructions:

- Before using this product, please carefully read the following safety instructions to ensure its proper use and keep this manual for future reference:
- To prevent electric shock, do not attempt to open the product.
- Only qualified personnel should perform any repairs or maintenance.
- Always place the product on a stable, flat surface to prevent it from falling.
- Do not expose the product to water, moisture, or high-humidity environments to avoid the risk of damage.
- To prevent damage from direct sunlight or high temperatures, do not expose the product to such environments.
- Do not place the product near heat sources like radiators, heat registers, stove, or other heat-producing apparatus.
- Do not place any objects on top of the product to avoid damage.
- Use only the attachments and accessories specified by the manufacturer.
- During lightning storms or prolonged periods of disuse, unplug the power supply to prevent damage.

Table of Contents

1. Introduction	5
2. Product Highlights	5
3. Package Contents	5
4. Hardware Specifications	6
5. Software Specifications	6
6. Application	7
7. Web Management	9
7.1 Port Tools > Port Setting	9
7.2 Port Tools > Port Routing	10
7.3 Port Tools > Presets	10
7.4 System > User Manage	11
7.5 System > System Config	11
7.6 System > System Status	12
7.7 System > Upgrade Firmware	12
7.8 System > Reboot	13
7.9 System > Restore Factory	13
7.10 Port Cable Test > Copper Test	13
8. Maintenance	14
9. Warranty	14
10. Mail-In Service	14
11. Limited Warranty Limits and Exclusions	14

1. Introduction

The J-Tech JTECH-NS24V3 is a Layer 3 network management switch equipped with 24 Gigabit Ethernet Ports and 4 x 10 Gigabit SFP+ Ethernet Ports. It facilitates Layer 3 static routing along with a maximum switching capacity of 128Gbps. Specifically tailored for AV over IP distribution, it incorporates an intuitive web-based management system for seamless input/output routing control.

2. Product Highlights

Flexible Port Configuration:

- 24 Gigabit Ethernet ports with 4 SFP+ ports.
- Ports 1 - 23 can be configured as either Inputs or Outputs.
- Port 24 is dedicated to management functions.

User-Friendly Web Management System:

- Assign port statuses as input or output and manage port routing.
- Handle user management, including adding or removing user accounts and setting priority levels.
- Create custom presets tailored to user preferences.
- Monitor switch status and apply available firmware updates.
- Reboot the switch or perform a factory reset.

Additional Features:

- Supports CLI and Layer 3 Management.
- Low power consumption.
- Standard 19" 1U rack mount design.

3. Package Contents

- (1) x JTECH-NS24V3
- (1) x Power Cable
- (2) x Mounting Ears

4. Hardware Specifications

Item	Details
Ethernet Ports	24 x Gigabit Ethernet Ports along with 4 x SFP+ Ports
Console Port	1 x RS45 - RS232 Serial Port (115200, 8, N, 1)
Init Key	Press and hold for >5s to reset switch to factory settings
Power	1 x AC 100~240V 50/60Hz
Power Consumption	30W
Standard	IEEE802.3, IEEE802.3u, IEEE802.3ab, IEEE802.3Z, IEEE802.3X IEEE802.1Q, IEEE802.1p, IEEE802.3ad, IEEE802.1D, IEEE802.1X
Exchange Capacity	128Gbps / non-blocking
Package Conversion Rate	95.2Mbps@64bytes
Exchange Mode	Store-and-forward
Package Data Cache	12Mbit
MAC Address List	16k
Rectangular Layout	12k bytes
EMI	FCC Part 15, CISPR (EN55022) Class A
EMS	Surge level-4 execute: IEC61000-4-5 ESD level-4 execute: IEC61000-4-2 RS level4-execute: IEC61000-4-3 EFT level4-execute: IEC61000-4-4 CS level3-execute: IEC61000-4-6 M/S level-5 execute: IEC61000-4-8
Operating Temperature	-40°C ~ 75°C
Storage Temperature	-40°C ~ 85°C
Size (LxWxH)	440mm x 227mm x 45mm
Weight	4.5kg
Identification	CE, FCC, RoHS

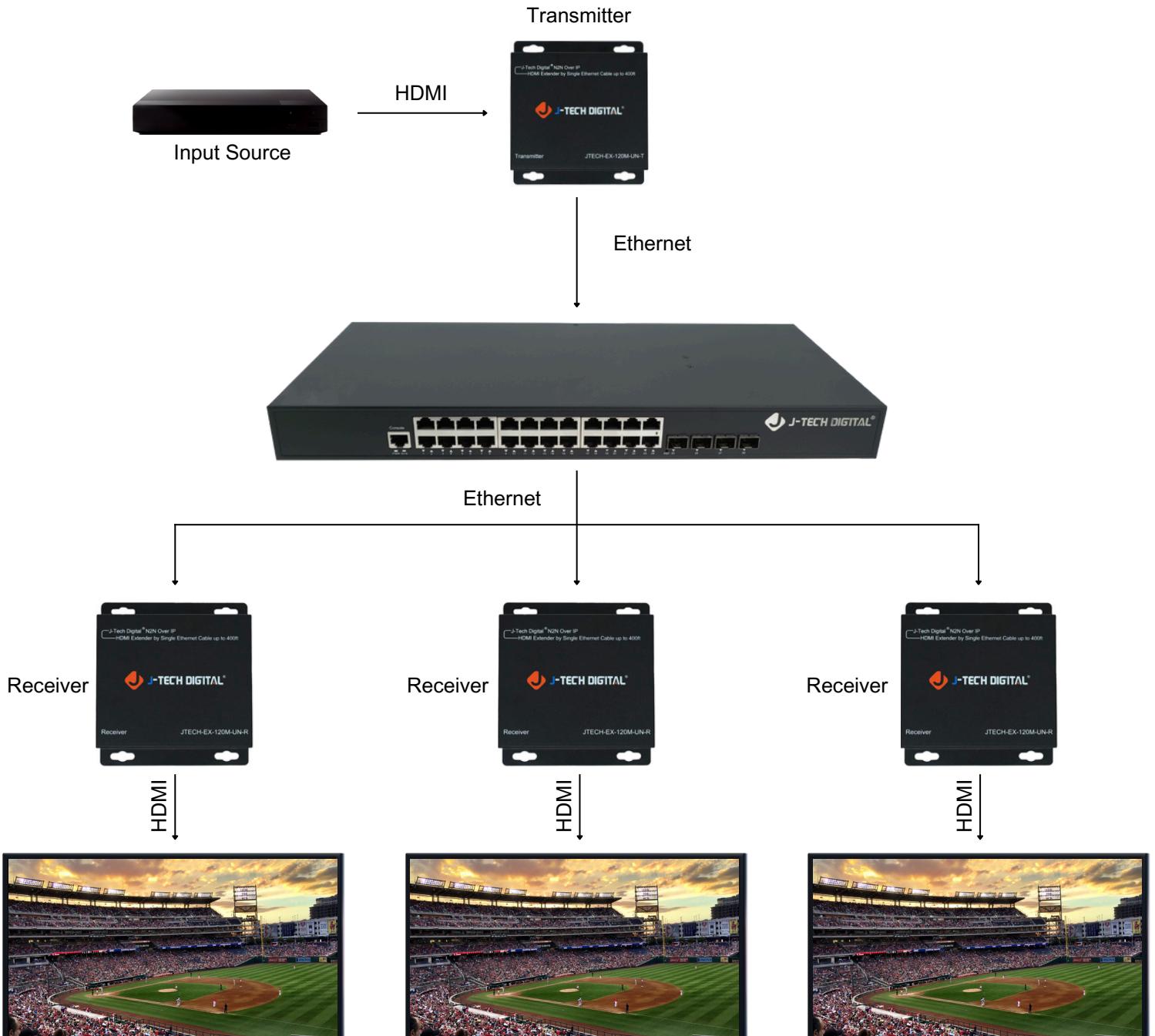
5. Software Specifications

- 802.1p COS/DSCP/TOS priority
- IGMP Snooping, MLD-snooping, DHCP snooping
- Multicast VLAN Registration (MVR)
- IP, MAC, port VLAN binding combinations
- IPV4 static route setup

- Static ARP Add, delete, burn-in time setup/check
- Group-broadcasting PIM, IGMPV1/V2/V3, MLD (IPV4)
- DHCP client
- Relay repeater, DHCP snooping
- Suplex transfer check mechanism

6. Application

One - Many Setup



Many - Many Setup



7. Web Management

The JTECH-NS24V3 offers a user friendly web management system which can be accessed and configured through an Ethernet port.

Default IP Address: **192.168.168.254**

Default Username: **admin**

Default Password: **admin**

7.1 Port Tools > Port Setting

Ability to change the Mode of the ports. For instance, changing an Input Port into an Output Port or vice versa.

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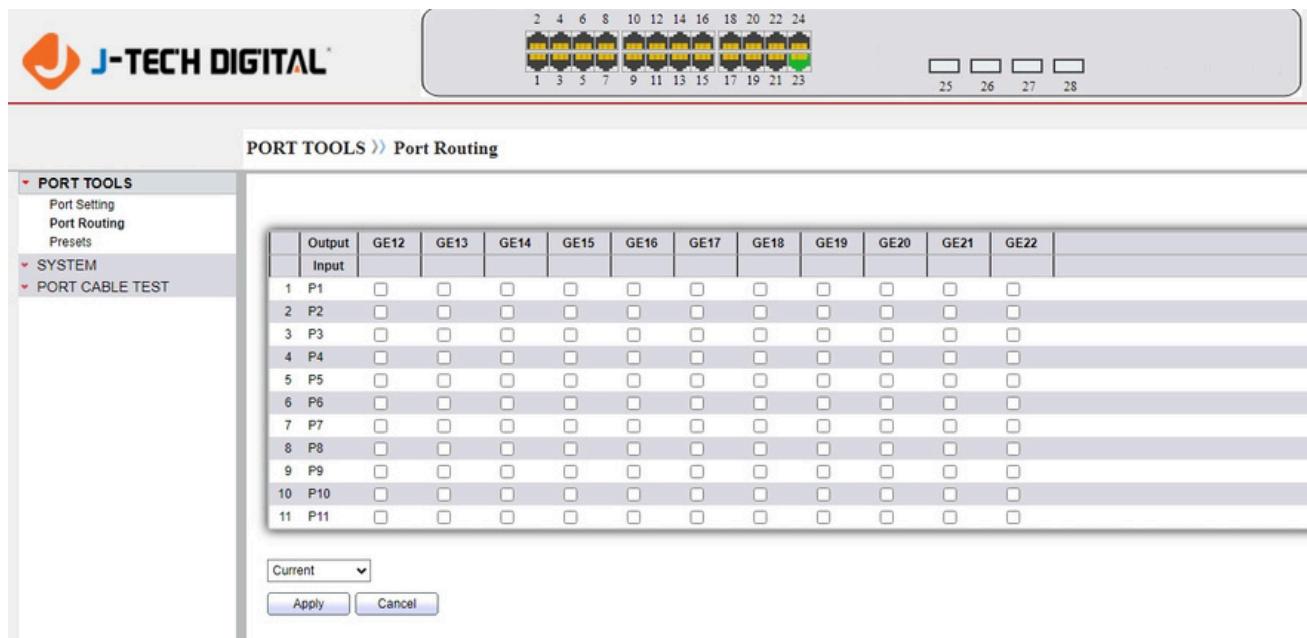
PORT TOOLS > Port Setting

Entry	Port	Description	Mode
1	GE1		Input
2	GE2		Input
3	GE3		Input
4	GE4		Input
5	GE5		Input
6	GE6		Input
7	GE7		Input
8	GE8		Input
9	GE9		Input
10	GE10		Input
11	GE11		Input
12	GE12		Output
13	GE13		Output
14	GE14		Output
15	GE15		Output
16	GE16		Output
17	GE17		Output
18	GE18		Output
19	GE19		Output
20	GE20		Output
21	GE21		Output
22	GE22		Output
23	GE23		Management
24	GE24		Management
25	TE1		Management
26	TE2		Management
27	TE3		Management
28	TE4		Management

Edit

7.2 Port Tools > Port Routing

Ability to create VLANs with the check of a box. For instance, you can make one Input Port route to Multiple Output ports. Will allow device to function like a Matrix.

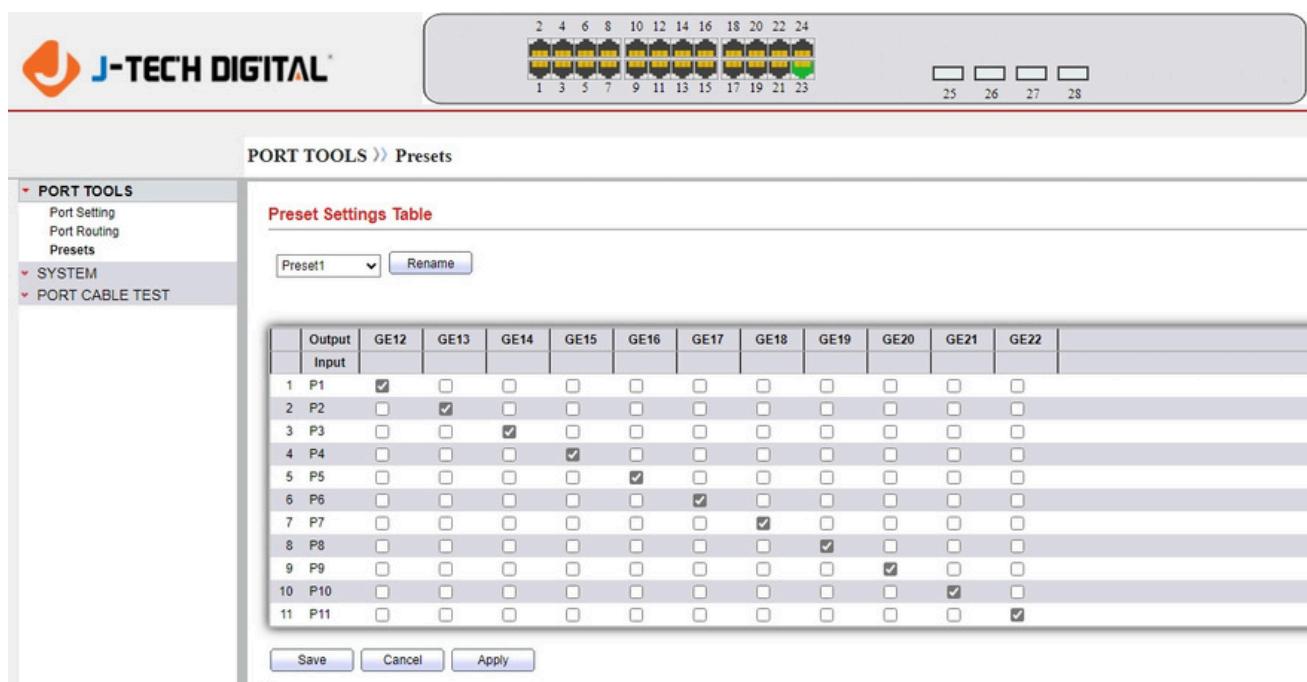


	Output	GE12	GE13	GE14	GE15	GE16	GE17	GE18	GE19	GE20	GE21	GE22
	Input											
1	P1	<input type="checkbox"/>										
2	P2	<input type="checkbox"/>										
3	P3	<input type="checkbox"/>										
4	P4	<input type="checkbox"/>										
5	P5	<input type="checkbox"/>										
6	P6	<input type="checkbox"/>										
7	P7	<input type="checkbox"/>										
8	P8	<input type="checkbox"/>										
9	P9	<input type="checkbox"/>										
10	P10	<input type="checkbox"/>										
11	P11	<input type="checkbox"/>										

Current Apply Cancel

7.3 Port Tools > Presets

Ability to create and name presets. Allows users to customize presets to their liking depending on the needs.



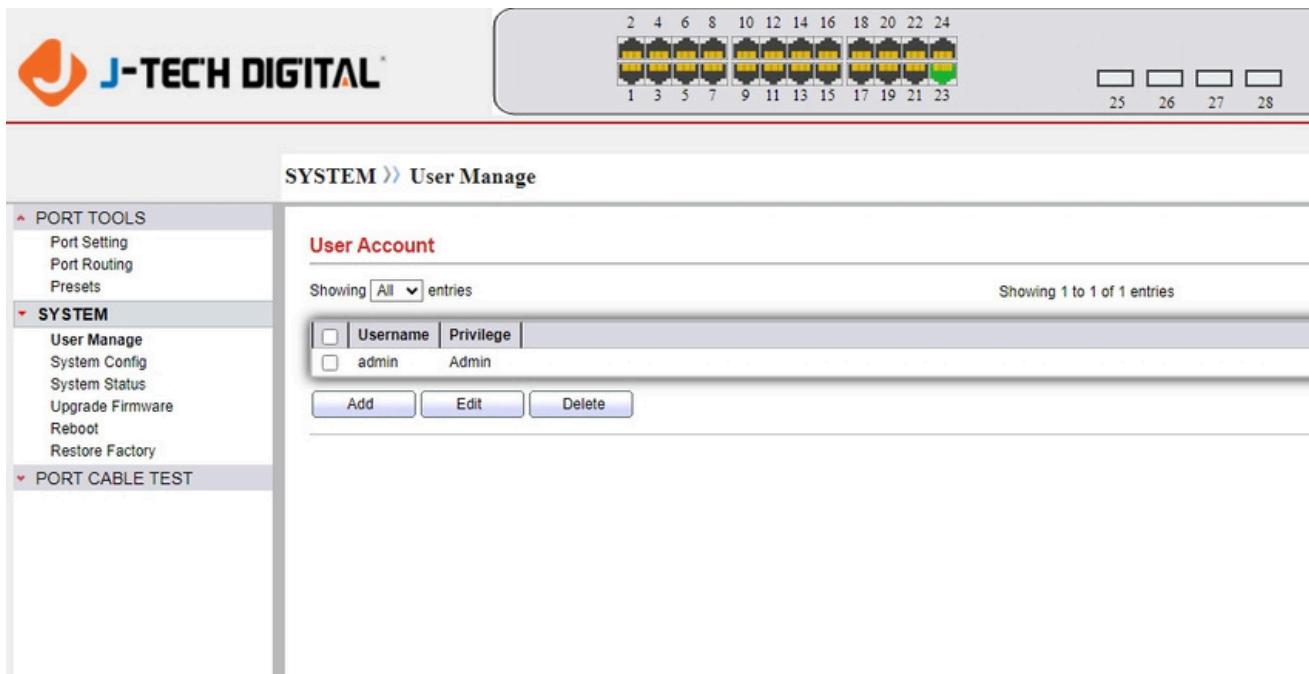
	Output	GE12	GE13	GE14	GE15	GE16	GE17	GE18	GE19	GE20	GE21	GE22
	Input											
1	P1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	P2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	P3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	P4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	P5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	P6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
7	P7	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
8	P8	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
9	P9	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							
10	P10	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
11	P11	<input type="checkbox"/>	<input checked="" type="checkbox"/>									

Preset1 Rename Save Cancel Apply

7.4 System > User Manage

Ability to add, edit or delete users.

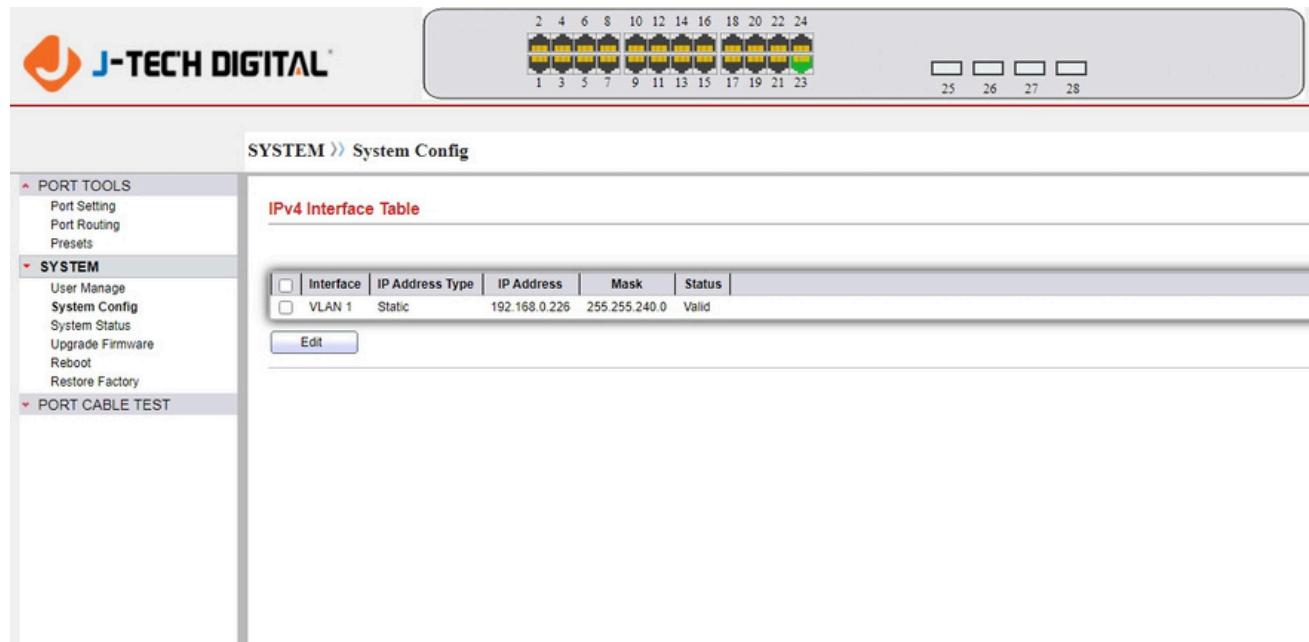
- (Default Username: admin Default Password: admin)



The screenshot shows the J-Tech Digital User Manage interface. At the top, there is a port map for a 28-port switch, with ports 1-24 labeled and ports 25-28 empty. On the left, a navigation menu is visible with sections for PORT TOOLS, SYSTEM (User Manage is selected), and PORT CABLE TEST. The main content area is titled 'User Account' and shows a table with one entry: a checked checkbox next to 'admin', 'Admin' in the Privilege column, and buttons for Add, Edit, and Delete.

7.5 System > System Config

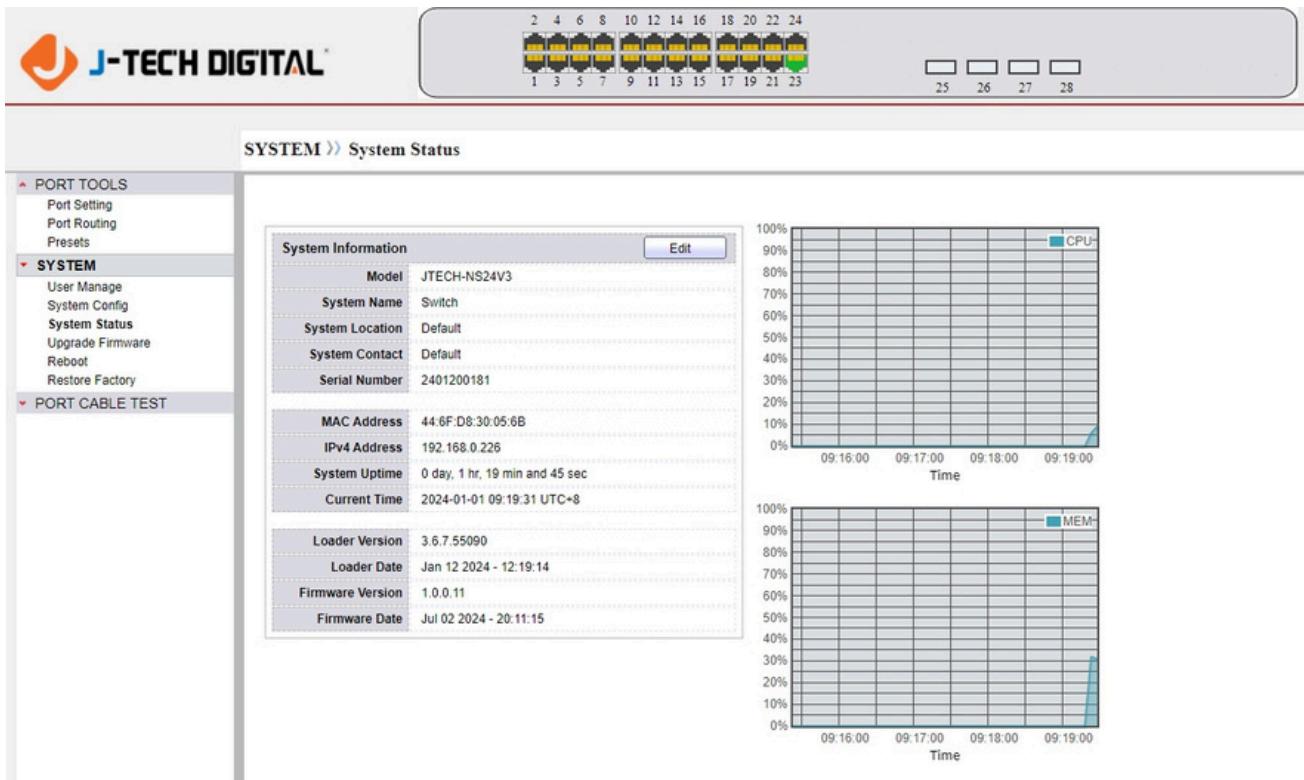
Ability to assign the switch a different IP address and subnet mask.



The screenshot shows the J-Tech Digital System Config interface. At the top, there is a port map for a 28-port switch, with ports 1-24 labeled and ports 25-28 empty. On the left, a navigation menu is visible with sections for PORT TOOLS, SYSTEM (System Config is selected), and PORT CABLE TEST. The main content area is titled 'IPv4 Interface Table' and shows a table with one entry: a checked checkbox next to 'VLAN 1', 'Static' in the IP Address Type column, '192.168.0.226' in the IP Address column, '255.255.240.0' in the Mask column, and 'Valid' in the Status column. There is also an 'Edit' button.

7.6 System > System Status

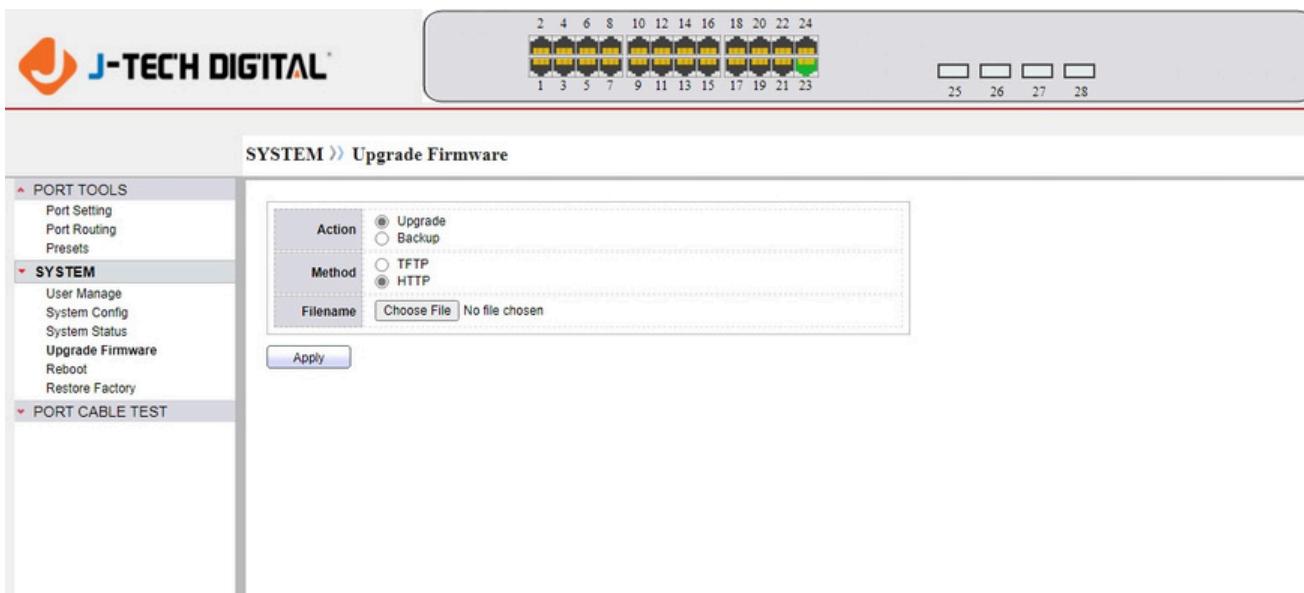
Ability to view and edit system information, such as system name, location, contact etc.



The screenshot shows the 'System Status' page. The left sidebar has sections for 'PORT TOOLS', 'SYSTEM' (selected), and 'PORT CABLE TEST'. The 'SYSTEM' section contains fields for Model (JTECH-NS24V3), System Name (Switch), System Location (Default), System Contact (Default), Serial Number (2401200181), MAC Address (44:6F:D8:30:05:6B), IPv4 Address (192.168.0.226), System Uptime (0 day, 1 hr, 19 min and 45 sec), Current Time (2024-01-01 09:19:31 UTC+8), Loader Version (3.6.7.55090), Loader Date (Jan 12 2024 - 12:19:14), Firmware Version (1.0.0.11), and Firmware Date (Jul 02 2024 - 20:11:15). Two line charts on the right show CPU and memory usage from 09:16:00 to 09:19:00. The CPU chart shows usage around 10-15%, and the memory chart shows usage around 10-15%.

7.7 System > Upgrade Firmware

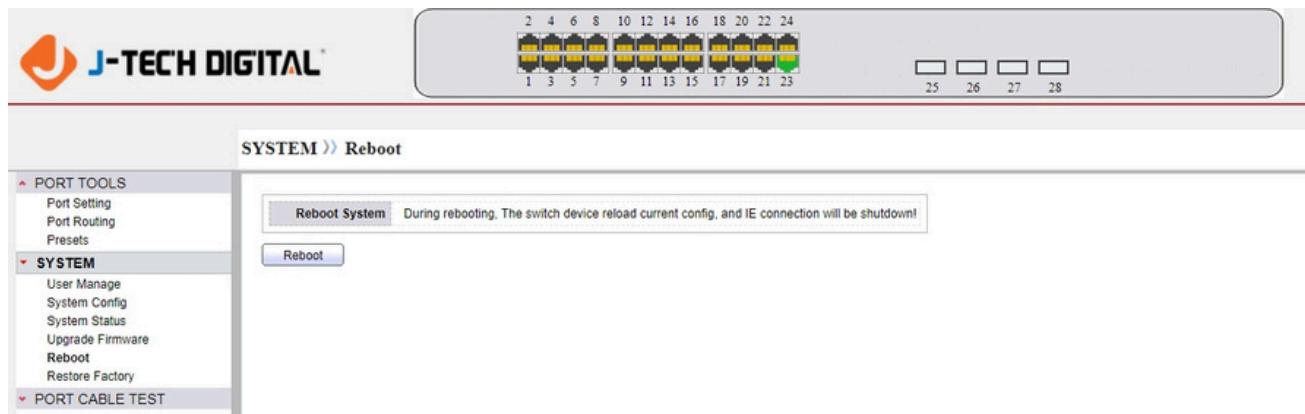
Upgrade or Backup Firmware via TFTP (Trivial File Transfer Protocol) or HTTP (Hypertext Transfer Protocol) using .bix filetypes.



The screenshot shows the 'Upgrade Firmware' page. The left sidebar has sections for 'PORT TOOLS', 'SYSTEM' (selected), and 'PORT CABLE TEST'. The 'SYSTEM' section contains fields for Action (Upgrade selected, Backup), Method (TFTP selected, HTTP), and a 'Choose File' button with 'No file chosen'. A 'Apply' button is at the bottom of the form.

7.8 System > Reboot

Used to restart the device.



SYSTEM > Reboot

Reboot System During rebooting, The switch device reload current config, and IE connection will be shutdown!

Reboot

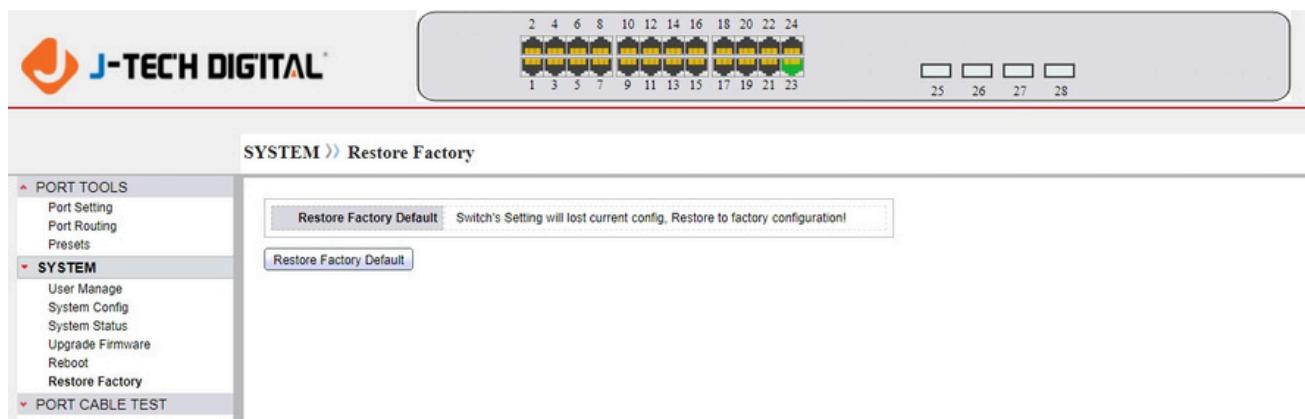
PORT TOOLS
Port Setting
Port Routing
Presets

SYSTEM
User Manage
System Config
System Status
Upgrade Firmware
Reboot
Restore Factory

PORT CABLE TEST

7.9 System > Restore Factory

Used to restore switch to default factory setting. All user settings will be lost.



SYSTEM > Restore Factory

Restore Factory Default Switch's Setting will lost current config, Restore to factory configuration!

Restore Factory Default

PORT TOOLS
Port Setting
Port Routing
Presets

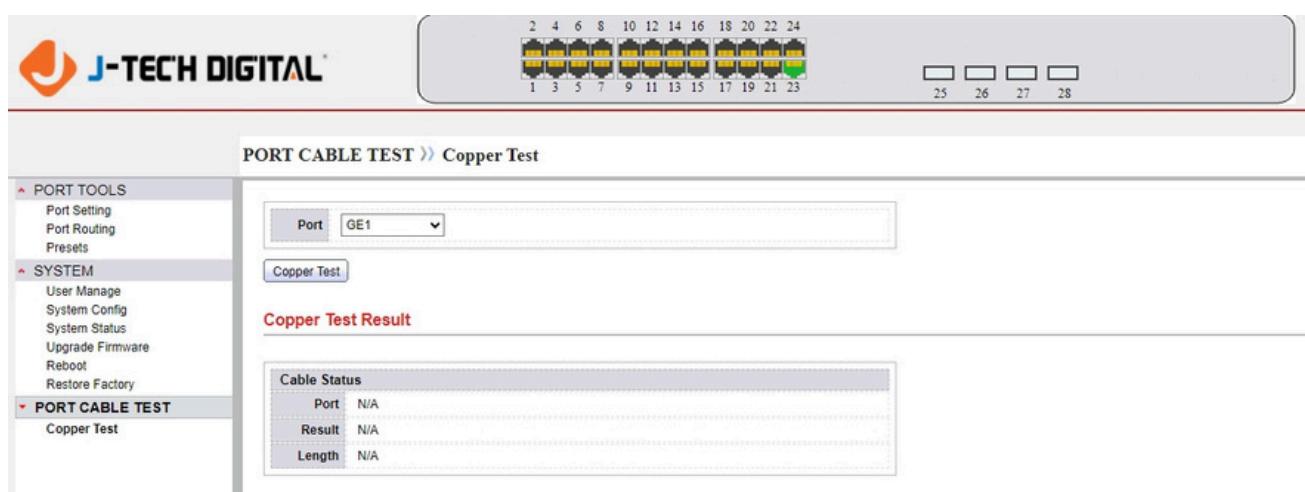
SYSTEM
User Manage
System Config
System Status
Upgrade Firmware
Reboot
Restore Factory

PORT CABLE TEST

7.10 Port Cable Test > Copper Test

Check the RJ45 cable connected by Port, labeled GE1- GE24 and view its Copper Test Results.

The results will show under Cable Status: Port, Result and Length (Meters)



PORT CABLE TEST > Copper Test

Port GE1

Copper Test

Copper Test Result

Cable Status	
Port	N/A
Result	N/A
Length	N/A

PORT TOOLS
Port Setting
Port Routing
Presets

SYSTEM
User Manage
System Config
System Status
Upgrade Firmware
Reboot
Restore Factory

PORT CABLE TEST
Copper Test

8. Maintenance

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner, or benzine to clean.

9. Warranty

If your product does not work properly because of a defect in materials or workmanship, our company (referred to as “the warrantor”) will, for the length of the period indicated as below, “Parts and Labor (1) Year”, which starts with the date of original purchase (“Limited Warranty period”), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor.

During the “Labor” limited warranty period, there will be no charge for labor. During the “Parts” warranty period, there will be no charge for parts. You must mail-in your product during the warranty period. This Limited Warranty is extended only to the original purchaser and only covers products purchased as new. A purchase receipt or other proof of original purchase date is required for Limited Warranty service.

10. Mail-In Service

When shipping the unit, carefully pack and send it prepaid, adequately insured, and preferably in the original carton. Include a letter detailing the complaint and provide a day time phone and/or email address where you can be reached.

11. Limited Warranty Limits and Exclusions

This Limited Warranty ONLY COVERS failures due to defects in material or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The Limited Warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, mis-adjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or service by anyone other than a Factory Service center or other Authorized

Servicer, or damage that is attributed to acts of God.

There are no express warranties except as listed under "Limited Warranty Coverage". The warrantor is not liable for incidental or consequential damages resulting from the use of this product or arising out of any breach of this warranty. (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, travel to and from the service, loss of or damage to media or images, data or other recorded content. The items listed are not exclusive but are for illustration only). Parts and service, which are not covered by this limited warranty, are your responsibility.



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