



## Firmware for PT-7828 Series Release Notes

<b>Version: v4.0</b>	<b>Build: FWR_PT7828_V4.0_Build_23120510</b>
<b>Release Date: Dec 28, 2023</b>	

### Applicable Products

N/A

### Supported Operating Systems

N/A

### New Features

- Added support for new MOXA commands:
  - change network setting
  - broadcast search
  - import config (sys.ini)
  - import cli
  - upgrade firmware (firmware.rom)
  - export plaintext config
  - export encrypted config
  - get device information
  - verify account
  - add/remove account
  - register a web session id
  - set mac address
  - export debug log
  - factory default
  - load commands from a file and sent to the DUT
  - Perform broadcast search 100000 times
- Added support for TLS v1.3.
- Added support for Account Password Policy.
- Added support for Account Login Failure Lockout.
- Added support for SSL Certificate Import.
- Added support for Encrypted Configuration.
- Added support for Management Interface in the Security section.

### Enhancements

- Upgraded the JavaScript library to jquery-3.7.0.min.js.
- Upgraded the SSH package (dropbear\_2019.78) to support "hmac-sha2-256 & diffie-hellman-group14-sha256".

### Bugs Fixed

- XSS vulnerabilities
  - LLDP diagnostic page
  - Time page (1st Time Server IP/Name & 2nd Time Server IP/Name)
  - Remote TFTP page (all input filed)
  - SNMP Settings page (Admin/User Data Encryption Key, 1st Trap Server IP/Name, 2nd Trap Server IP/Name)
  - Email Setup page (email address)
  - DHCP Relay Agent page (Value)
- [CVE-2021-27417]: If the file size is exceptionally large, undefined behavior can't be prevented.
- [MSRV-2019-003] Denial of Service (web service) by improper HTTP GET command (CNVD 2019-

116145)

- [MSRV-2019-004] Denial of Service (web service) by over-sized (more than 12 MB) firmware upgrade through HTTP/HTTPS.
- [MSRV-2019-005] Denial of Service (web service) by excessive length of HTTP GET command.
- [MSRV-2017-011] Cross-Site Request Forgery (CSRF).
- [MSRV-2017-021] Release the cookie once the session expires to avoid the old cookie value being reused.
- [CVE-2022-0778] Import certificate issue: Updates OpenSSL package.
- [TALOS-2022-1621] A specially crafted HTTP request can lead to the disclosure of sensitive information.
- [TALOS-2022-1619] A specially crafted HTTP request can lead to an arbitrary JavaScript execution.
- [TALOS-2022-1618] A specially crafted HTTP message header can lead to denial of service.
- [TALOS-2022-1616] A specially crafted network sniffing can lead to the disclosure of sensitive information.
- [CVE-2022-40214] Potential tampered messages.
- [CVE-2022-40691] A specially crafted HTTP request can lead to disclosure of sensitive information.
- [nessus-43156] The remote network time service has a denial-of-service vulnerability.
- [nessus-97861] The remote NTP server responds to mode 6 queries, which can potentially be used in NTP amplification attacks.
- [Nessus-85582]: Web application potentially vulnerable to clickjacking.
- After configuring the NTP local time, if two configured NTP servers are configured, the NTP function does not work properly and may result in time sync failures.
- The SNMPv3 encryption data and shared key of the TACACS and RADIUS server can be viewed by snooping the web interface.
- The system is unable to handle corrupted OSPF packets, resulting in a vulnerable device rebooting after several minutes when receiving a malformed OSPF Hello packet.

## Changes

- Removed "IE 11" and "IE 7" wording from the web interface.
- Removed the CBC and SHA1 ciphers from TLSv1.2 for security reasons.
- Disabled TLS v1.0 and v1.1 for security reasons.
- Replaced the Monitoring page with a non-Java version.
- Removed the banner with device-related information from the login page.

## Notes

N/A



<b>Version: v3.9</b>	<b>Build: Build_17122616</b>
<b>Release Date: Dec 29, 2017</b>	

## **Applicable Products**

PT-7828 Series

## **Supported Operating Systems**

N/A

## **New Features**

- Added configuration file encryption settings.

## **Enhancements**

N/A

## **Bugs Fixed**

- Stack-based buffer overflow vulnerability.
- Risky cryptographic algorithm vulnerability.
- Hard-coded cryptographic key vulnerability.
- Hard-coded password vulnerability.
- RSTP 40 nodes failed issue.
- Turbo Ring v1 failed issue on firmware v3.8.
- Removed misplaced UI config: IEEE 1588v2 E2E 1-step TC.
- CLI configuration export file has no RSTP port information issue.

## **Changes**

N/A

## **Notes**

- This is the last official firmware update for PT-7828 hardware revision v1.x and v2.x due to flash size limitation.
- The future official firmware upgrade will only apply to hardware revision v3.0 and above.

<b>Version: v3.8</b>	<b>Build: Build_17041117</b>
<b>Release Date: N/A</b>	

## Applicable Products

PT-7828 Series

## Supported Operating Systems

N/A

## New Features

- Supports IEC 61850 QoS.

## Enhancements

- Added warning message when default password was not changed.
- Encrypted security keys in user interface.
- Enhanced RSTP compatibility.

## Bugs Fixed

- Cross-site scripting vulnerability.
- Denial of service attack vulnerability.
- Privilege escalation vulnerability.
- SSL v2/v3 vulnerability in HTTPS.
- Web console cannot be accessed when the SNMP get bulk service is running.
- Specific CLI command caused switch to reboot with default settings.
- Adding a new VLAN changed IGMP querier state from disable to enable.
- Could not save configurations to the ABC-01 via IE browser.
- Rate limit could not be set in web UI.
- PTP timestamp error in announce message.
- Removed 1588v2 PTP message of IEC 61850 QoS.
- Corrected authorization of Radius/TACACS+ login.

## Changes

- SW PTP.
- IP filter.
- Line Swap.
- Traffic prioritization.
- SNMP setting.
- Port Access Control.
- Auto warning.
- Note: The above feature settings are removed from the menu mode console due to flash size limitation. However, user can also setup by web UI and CLI.

## Notes

N/A



<b>Version: v3.5</b>	<b>Build: Build_16052409</b>
<b>Release Date: N/A</b>	

### **Applicable Products**

PT-7828 Series

### **Supported Operating Systems**

N/A

### **New Features**

N/A

### **Enhancements**

N/A

### **Bugs Fixed**

- Inaccurate system local time.
- Time floating in NTP mechanism.

### **Changes**

N/A

### **Notes**

N/A



<b>Version: v3.4</b>	<b>Build: Build_15071516</b>
<b>Release Date: N/A</b>	

### **Applicable Products**

PT-7828 Series

### **Supported Operating Systems**

N/A

### **New Features**

- Supports IEC 61850 QoS.

### **Enhancements**

- 12 digit product series number.

### **Bugs Fixed**

- Fixed bugs on firmware v3.

### **Changes**

N/A

### **Notes**

N/A



<b>Version: v3.3</b>	<b>Build: N/A</b>
<b>Release Date: N/A</b>	

### **Applicable Products**

PT-7828 Series

### **Supported Operating Systems**

N/A

### **New Features**

- Added SNMP MIB for SFP DDM.

### **Enhancements**

- Added web interface for loop-protection enable/disable.
- Added web interface for SSH/SSL key generation.

### **Bugs Fixed**

- Login failed in CLI mode when password included a special character.
- Hybrid VLAN lacked SNMP MIB object.
- Access Control List (ACL) did not function correctly.
- SFP DDM displayed inaccurate values.
- IEEE 1588 PTP did not function correctly.

### **Changes**

N/A

### **Notes**

N/A



<b>Version: v3.1</b>	<b>Build: N/A</b>
<b>Release Date: N/A</b>	

### **Applicable Products**

PT-7828 Series

### **Supported Operating Systems**

N/A

### **New Features**

N/A

### **Enhancements**

- Passed ODVA EtherNet/IP certificate.
- Added some minor SNMP OIDs.
- Enhanced multicast performance.
- Added version number in MIB file.
- Supports Command Line Interface.

### **Bugs Fixed**

- NTP did not synchronize time in default setting.
- NTP client function did not work with Windows XP NTP server.
- Firmware Upgrade Failed when IEEE 802.1x was enabled.
- Switch rebooted when receiving IGMP v3 packets (commonly used in Windows).

### **Changes**

N/A

### **Notes**

N/A



<b>Version: v2.7</b>	<b>Build: N/A</b>
<b>Release Date: N/A</b>	

### **Applicable Products**

PT-7828 Series

### **Supported Operating Systems**

N/A

### **New Features**

N/A

### **Enhancements**

- Added new internal algorithm to prevent system hang when a layer 3 interface is changed due to link up and down and also received a lot of unknown packets at a rate greater than 50 Mbps.
- Added new internal algorithm to prevent system from generating incorrect layer 3 routing table when an Ethernet switch port abnormally links up/down.

### **Bugs Fixed**

- Fixed bug for Turbo Ring V2 recovery issue when Gigabit Fiber port abnormally links up/down.

### **Changes**

N/A

### **Notes**

N/A



<b>Version: v2.6</b>	<b>Build: N/A</b>
<b>Release Date: N/A</b>	

## **Applicable Products**

PT-7828 Series

## **Supported Operating Systems**

N/A

## **New Features**

- Supports TurboPack™ 2009 (add new functions for Turbo Chain, IPv6, Modbus/TCP, IEEE 1588 PTP, SNMP Inform, LLDP, DHCP Option 82, Firefox, and SSH).
- Added OSPF, and VRRP.
- Push Ring port button when running Turbo Chain, the Chain ports' LED will be activated.
- Link Healthy Check on Gigaports for redundant protocols changed from Alarm mode to Polling mode.
- Added 10FL and MTRJ module.
- Added "RSTP\_2004", "CHANGE\_IP\_NOREBOOT", "RTC".
- Adds an exception error to the system log and reboots the system when the system hangs.

## **Enhancements**

N/A

## **Bugs Fixed**

N/A

## **Changes**

N/A

## **Notes**

N/A



<b>Version: v1.2</b>	<b>Build: N/A</b>
<b>Release Date: N/A</b>	

### **Applicable Products**

PT-7828 Series

### **Supported Operating Systems**

N/A

### **New Features**

- Added the PM-7200-8SFP compatibility function.

### **Enhancements**

N/A

### **Bugs Fixed**

N/A

### **Changes**

N/A

### **Notes**

N/A



<b>Version: v1.1</b>	<b>Build: N/A</b>
<b>Release Date: N/A</b>	

### **Applicable Products**

PT-7828 Series

### **Supported Operating Systems**

N/A

### **New Features**

- Added web interface for SSH/SSL key generation.
- Added SNMP MIB for SFP DD.

### **Enhancements**

N/A

### **Bugs Fixed**

- Hybrid VLAN lacks of SNMP MIB object.
- Access Control List (ACL) cannot function correctly.
- SFP DDM display inaccurate values.
- IEEE 1588 PTP cannot function correct.

### **Changes**

N/A

### **Notes**

N/A