Software Name: Firmware for ICS-G7828A Series

Version No.	Build Date No./ Release Date	Supported OS	Apply to Models	New Features/ Enhancements	Bugs Fixed/Changes	Note

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v5.6	Build_18110820	N/A	ICS-G7828A Series	**New Features:** Layer 3: 1. Support tracking function. Security Related Functions 1. System Notification: Definable successful/failed login notification. 2. Password Policy: Password strength can be set. 3. Account Lockout Policy: Failure threshold and lockout time can be set. 4. Log Management: Full log handling. 5. Remote Access Interface Enable/Disable. 6. Configuration Encryption with password. 7. Support SSL certification import. 8. Support MAC authentication bypass via RADIUS authentication. 9. MAC Address access control list or MAC address filtering. 10. Protect against MAC flooding atack by MAC address sticky. 11. NTP authentication to prevent NTP DDoS attack. 12. Login Authentication: Support primary & backup database servers (RADIUS / TACACS+ / Local Account). 13. Login Authentication via RADIUS Server: Support Challenge Handshake Authentication Protocol (CHAP) authentication mechanism. 14. RADIUS Authentication: Support EAP-MSCHAPv2 (For Windows 7). 15. MXview Security View Feature Support* (with MXstudio V2.4).	**Bugs Fixed:** 1. Fix abnormal display of packet counter in the web GUI. 2. When the device receives large amounts of BPDU packets on a port, the RSTP function does not enable, which might cause the device to reboot. 3. If there is an '&' in either the Switch Name or Switch Location column, the description will not display properly on the relevant page. **Changes:** 1. Rate limit adds more options on the ingress rate	Suggestion: 1. Reconfigure the device once you have upgraded to v5.x 2. To ensure that the system remains stable, do not export configurations from v4.x or prior into v5.x or later

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				Redundancy 1. Turbo Ring v2, Turbo Chain Support Port Trunking **Enhancements:** 1. Web GUI supports web browser Chrome 65.0 2. CLI: Supports Multiple Sessions (up to six). 3. SMTP Supports Transport Layer Security (TLS) Protocol and Removes SSL v2/v3. 4. SNMPv3 Traps and Informs. 5. Display Issues with Java Applet. 6. Fiber Check: Add Threshold Alarm. 7. Static Port Lock with VLAN filtering option. 8. When GbE Port Speed is [Auto], MDI/MDIX is [Auto] Fixed. 9. Web UI/CLI Command Enhancement and Modification.		
v4.5	Build_16112110	N/A	ICS-G7828A-20GSFP-4GTXSFP-4XG-HV-HV, ICS-G7828A-4GTXSFP-4XG-HV-HV, ICS-G7828A-8GSFP-4GTXSFP-4XG-HV-HV	**New Features:** 1. Add DSCP remark function. 2. Add Traceroute function. **Enhancements:** 1. Encrypt all security passwords and keys in web user interface and command-line interface.	**Bugs Fixed:** 1. VRRP can't work on RSTP ports. 2. VRRP state will be unexpectedly changed when it takes too much time to change IGMP querier. 3. VRRP state will be unexpectedly changed when both VRRP Fast Switchover mode is enabled and Port Trunking is set. 4. Configurations can't be imported through command line, when VRRP Fast Switchover mode is set with more than 16 entries. 5. Device will reboot occasionally when enabling OSPF. **Changes:** N/A	N/A

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v4.2	Build_15062312	N/A	ICS-G7828A-20GSFP-4GTXSFP-4XG-HV-HV, ICS-G7828A-4GTXSFP-4XG-HV-HV, ICS-G7828A-8GSFP-4GTXSFP-4XG-HV-HV	**New Features:** 1. Add new Multicast Fast Forwarding Mode 2. Add new VRRP Fast Switchover Mode 3. Add new Multicast Local Route **Enhancements:** 1. Increase IGMP Groups to 4096 (original 1000 groups). 2. Improve Turbo Chain link status check mechanism at the head port.	**Bugs Fixed:** 1. Device will reboot when using CLI command to backup device configuration to TFTP server. 2. Device will reboot when using CLI command to change SNMP v3 data encryption key and the length of key is over than 100 characters. **Changes:** N/A	N/A
v4.1	Build_15030209	N/A	ICS-G7828A-20GSFP-4GTXSFP-4XG-HV-HV, ICS-G7828A-4GTXSFP-4XG-HV-HV, ICS-G7828A-8GSFP-4GTXSFP-4XG-HV-HV	**New Features:** N/A **Enhancements:** N/A	**Bugs Fixed:** 1. PIM-SM multicast forwarding issues 2. Randomly hang issue while booting up 3. Topology drawing issue on MXview 4. In IGMPv3, fail to forward multicast packets on MSTP DISABLED-STATUS port 5. Fail to add Static default route (0.0.0.0/0) through Web console 6. Randomly fail to recognize Moxa SFP modules 7. In OSPF routing protocol, 10G ports have incorrect path cost 8. Randomly fail to connect to ABC-02 9. HTTPS certification validity issue 10. Reboot issue while TFTP upgrading firmware with incorrect CLI command 11. ACL CLI command fail on rules with Ether-type is 0 or IP-protocol is 0 12. Hang issue while IGMP join and leave frequently **Changes:** N/A	N/A

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v4.0	Build_14093015	N/A	ICS-G7828A-20GSFP-4GTXSFP-4XG-HV-HV, ICS-G7828A-4GTXSFP-4XG-HV-HV, ICS-G7828A-8GSFP-4GTXSFP-4XG-HV-HV	**New Features:** 1. First release. **Enhancements:** N/A	**Bugs Fixed:** N/A **Changes:** N/A	N/A