Software Name: Firmware for AWK-4131A Series

Version No.	Build Date No./ Release Date	Supported OS	Apply to Models	New Features/ Enhancements	Bugs Fixed/Changes	Note
v1.13	Build_18121215	N/A	AWK-3131A-JP-T, AWK-4131A-US-T, AWK-4131A-JP-T, AWK-3131A-US, AWK-4131A-EU-T, AWK-3131A-JP, AWK-3131A-EU, AWK-3131A-EU-T, AWK-3131A-US-T	**New Features:** 1. IEC 62443-4-2 support 2. 3rd SNMP trap server 3. web certificate support **Enhancements:** N/A	**Bugs Fixed:** 1. Abnormal roaming handoff time if MAC clone is enabled 2. Device reboot if it receives an abnormal beacon which does not follow IEEE standards. 3. Issue with the error handler for abnormal Wi-Fi packets 4. Static route of WLAN iface does not work for DHCP client in Client-Router mode **Changes:** N/A	N/A
v1.12	Build_18090617	N/A	AWK-3131A-EU, AWK-3131A-EU-T, AWK-3131A-US, AWK-3131A-US-T, AWK-3131A-JP, AWK-3131A-JP-T, AWK-4131A-EU-T, AWK-4131A-US-T, AWK-4131A-JP-T	**New Features:** N/A **Enhancements:** N/A	**Bugs Fixed:** 1. DFS: Abnormal behavior of DFS function. **Changes:** 1. AeroMag: Hides the unnecessary SSID when AWK is configured as an AeroMag AP.	N/A

Software Name: Firmware for AWK-4131A Series

Version No.	Build Date No./ Release Date	Supported OS	Apply to Models	New Features/ Enhancements	Bugs Fixed/Changes	Note
v1.11	Build_18062617	N/A	AWK-3131A-EU, AWK-3131A-EU-T, AWK-3131A-US, AWK-3131A-US-T, AWK-3131A-JP, AWK-3131A-JP-T, AWK-4131A-EU-T, AWK-4131A-US-T, AWK-4131A-JP-T	**New Features:** 1. [AeroMag] Supports AeroMag client. 2. [NAT] Supports 1-to-1 NAT. 3. [DHCP client] Supports DHCP option 12 (hostname = device name). 4. [DHCP client] Supports DHCP option 50 (requested IP address). 5. [Network Status] Provides bridge status via SNMP. **Enhancements:** 1. WLAN: Supports the WLAN system log version 2. 2. AeroMag: Adds system log for channel analysis and applying the configuration. 3. MAC clone: Adds system log for MAC clone. 4. Quick setup: If RF type is pure N, WEP is not supported. 5. Quick setup: Adds WEP length checker for WEP security. 6. Quick setup: Supports TKIP on B/G/BGMixed/A only. 7. Quick setup: If RF type is pure N, AES/TKIP mixed is not supported.	**Bugs Fixed:** 1. WLAN:Rx stuck issue. 2. WLAN: Tx hang caused by interrupt (0x0000 0000) messages. 3. WLAN: DUT reboots if it roams for many times. 4. WLAN: AP always works on 20 MHz, if there is an another AP on the specified channel when it booting up. 5. WLAN: AP with multiple VAPs just only works on 20 MHz, even if its bandwidth is configured at 20/40MHz. 6. WLAN: GARP is not sent out, if driver cannot get the interface IP or cannot allocate malloc (skb). 7. WLAN Status: Value of WLAN assoc rx/tx pkts/bytes always is 2147483647, if the value is over 2147483647. 8. Turbo roaming: Unexpected roaming occurs because the AP Alive check timer resumes after receiving packets on a foreign channel. 9. Turbo roaming: The AP candidate threshold is not effective when both the AP alive check and Client-based Turbo Roaming ere enabled. 10. Turbo roaming: Roaming log has wrong SNR. 11. AeroMag: Web console cannot get the latest information after channel refresh or reconfigure. 12. AeroMag: MAC Clone does not work after applying the new configuration. 13. AeroMag: AeroMag AP assigns configuration to other devices in the same group before regenerating a new configuration. 14. RSSI report: Scanned node which is not updated for 1 sec is not included in the report. 15. RSSI report: Facility and severity parameters in the RSSI report are inot correct. 16. RSSI report: Noise/SNR values are sometimes inaccurate. 17. Configuration: Cannot change the bandwidth to 20/40MHz in client mode in some cases. 18. WEB: Login message should use the activated configuration. 19. WEB: Length of SSID can't be longer than 32. 20. WEB: Cannot input 240 characters in web login	N/A

Software Name: Firmware for AWK-4131A Series

Version No.	Build Date No./ Release Date	Supported OS	Apply to Models	New Features/ Enhancements	Bugs Fixed/Changes	Note
					message and login authentication failure message. 21. WEB: UI does not show unit of the roaming threshold (SNR). 22. WEB: System log cannot be exported via Firefox 59.0.223. 23. WEB: Cannot enable Turbo Roaming via web UI, if RF type is 2.4G type. 24. WEB: Linux command can be injected in POST data commands. 25. WEB: Web server crash, if user modifies the password during login. 26. WEB: User can't increase the minimum length of the password, if current password is less than the specific length. 27. WEB: User-level user can't use "Diagnostics" and "Wi-Fi Mirror Port". 28. WEB: User-lever user can't export current device information on Troubleshooting page. 29. Utility: Cannot reboot the device through MXconfig. **Changes:** 1. MAC Clone: Changes the STA MAC to the MAC of the backend PC, even if it has not connected to the AP. 2. Configuration: To enhance RX accuracy, new roaming configuration is created to replace the current configuration; "AP candidate threshold" configurations are different from legacy mode, 2.4GN-related mode, and 5GN-related mode. 3. Configuration: Changed the range of "Inactive timeout" from 1 -240 seconds to 8-240 seconds in AP mode. 4. Configuration: Operation mode is changed automatically once AeroMag is enabled. 5. Configuration: Changed the max length of user's password from 16 to 32. 6. Configuration: SNMP settings includes secondaryKey1, ro_community, and rw_community; settings will be encrypted in exported configuration. 7. DHCP Client: Initial network IP is set to 169.254.0.1 before getting an IP from DHCP for the 1st time. 8. Network Settings: Device IP shall not be the network ID.	

Software Name: Firmware for AWK-4131A Series

Version No.	Build Date No./ Release Date	Supported OS	Apply to Models	New Features/ Enhancements	Bugs Fixed/Changes	Note
					9. WEB/Utility: Network information can't be the current IP/netmask/Gateway when AWK acts as a DHCP client. 10. WEB: Disabled all buttons when the logs on the system log page are cleared. 11. WEB: Add "Skip" option where user is asked to modify the password on login page. 12. Troubleshooting: Changed all the special characters in file name except dash to underscore.	
v1.10	Build_18032720	N/A	AWK-3131A-EU, AWK-3131A-EU-T, AWK-3131A-US, AWK-3131A-US-T, AWK-3131A-JP, AWK-3131A-JP-T, AWK-4131A-EU-T, AWK-4131A-US-T, AWK-4131A-JP-T	**New Features:** N/A **Enhancements:** N/A	**Bugs Fixed:** 1. CVE-2017-14459; Telnet, Serial console, SSH will reject invalid characters to prevent injection attacks. **Changes:** N/A	N/A
v1.9	Build_18012818	N/A	AWK-3131A-EU, AWK-3131A-EU-T, AWK-3131A-US, AWK-3131A-US-T, AWK-3131A-JP, AWK-3131A-JP-T, AWK-4131A-EU-T, AWK-4131A-US-T, AWK-4131A-JP-T	**New Features:** N/A **Enhancements:** N/A	**Bugs Fixed:** 1. Web server will reject invalid characters including ` ' " | ; & **Changes:** 1. Changes the format of device name to AWK-3131A_[the last six digits of MAC address]. 2. Shows complete S/N information.	N/A

Software Name: Firmware for AWK-4131A Series

Version No.	Build Date No./ Release Date	Supported OS	Apply to Models	New Features/ Enhancements	Bugs Fixed/Changes	Note
v1.8	Build_17122516	N/A	AWK-3131A-EU, AWK-3131A-EU-T, AWK-3131A-US, AWK-3131A-US-T, AWK-3131A-JP, AWK-3131A-JP-T, AWK-4131A-EU-T, AWK-4131A-US-T, AWK-4131A-JP-T	**New Features:** 1. Supports Wi-Fi Mirror Port. 2. Supports AeroLink Protection with SNR check. 3. Supports AeroLink Protection with VLAN. 4. Supports the SNR/Noise floor on MXview dashboard. **Enhancements:** 1. Optimized the roaming recovery time for the scenario that 4-4 EAPOL packet is dropped. 2. Optimized the packets lost under following two conditions: Master and Slave connection under 802.11n mode and WPA/WPA2, the traffic comes behind Master to the slave and the devices behind the slave at the same time.	**Bugs Fixed:** 1. Wi-Fi client signal strength is not correct and not accessible after connected AP disappeared. 2. Syslog server still work while server port is not assigned. 3. Roaming event is recorded as connection event, if the first bytes of AP's MAC is 0x00. 4. If the operation mode is client-router, AWK could not use WPA/WPA2 enterprise mode. 5. If AP using channel 140 changes to client mode, channel width cannot be set to 20/40. 6. User cannot access web console if AWK received IP again from DHCP server. 7. If the AWK is DHCP client and enables MAC clone, AWK cannot receive the IP from Cisco AP and then Cisco AP will disconnect AWK. 8. Network looping causes AeroLink Projection works abnormally. 9. AeroLink does not support slave mode. 10. If the roaming message is larger than 128 bytes, the some syslog messages are missing. 11. The maximum transmission power is allow to set the value which is out of the valid range. 12. Error message for account settings is incorrect if account name is duplicated. 13. The cookie paring is incorrect. 14. Cannot retrieve information via OneKeyInfo. 15. AWK cannot reboot and configure via MXconfig under some circumstances. 16. If the size of configured value is larger than 64 bytes, the configuration setting will not succeed. **Changes:** 1. Does not support the configuration 0 for all TCP/UDP port settings (TCP/UDP 0 port is a reserved port).	N/A

Software Name: Firmware for AWK-4131A Series

Version No.	Build Date No./ Release Date	Supported OS	Apply to Models	New Features/ Enhancements	Bugs Fixed/Changes	Note
v1.7	Build_17102616	N/A	AWK-3131A-EU, AWK-3131A-EU-T, AWK-3131A-US, AWK-3131A-US-T, AWK-3131A-JP, AWK-3131A-JP-T, AWK-4131A-EU-T, AWK-4131A-US-T, AWK-4131A-JP-T	**New Features:** N/A **Enhancements:** N/A	**Bugs Fixed:** The following CVE's are fixed: CVE-2017-13077, CVE-2017-13078, and CVE-2017-13080. **Changes:** N/A	N/A

Software Name: Firmware for AWK-4131A Series

Version No.	Build Date No./ Release Date	Supported OS	Apply to Models	New Features/ Enhancements	Bugs Fixed/Changes	Note
v1.6	Build 17091517	N/A	AWK-3131A-EU, AWK-3131A-EU-T, AWK-3131A-US, AWK-3131A-US-T, AWK-3131A-JP, AWK-3131A-JP-T, AWK-4131A-EU-T, AWK-4131A-US-T, AWK-4131A-JP-T	**New Features:** 1. Supports AeroMag. 2. Supports quick setup. 3. Supports Moxa security level 1. 4. Supports WPA/WPA2 Mixed. 5. Supports Trouble shooting. 6. Supports management encryption. 7. Master mode supports multiple slaves. 8. Supports Enable/Disable Ethernet LAN interface. 9. Supports static MAC Clone. 10. Supports channel 120 to 128 in US model. **Enhancements:** 1. 802.3az is not supported. 2. [SNMP] Use iface speed as ifHighSpeed on ifXTable. 3. [Web] Do not show inactive timeout in client-router mode. 4. LLDP does not support 802.3. 5. Encrypt/Decrypt Remote Protocol data payload. 6. [LLDP] Delete the 1000baseT_Half/1000baseT_Full when the AR934x_ETH_FAST feature enable on the mvport ethtool. 7. Porting OpenSSL 1.1.0e is supported. 8. Change roaming threshold default value to -65 under legacy mode, -55 under 2.4 GHz N mode, and to -50 under 5 GHz N mode 9. Max TX Power changes as following.	**Bugs Fixed:** 1. Issue with simultaneous RF type mixed mode connectivity to different pure RF type modes. 2. Rebooting issue while scanning DFS. 3. Boot up failure issue. 4. Interoperability with Cisco/Aruba/Ruckus AP by sending EAPOL frame with QOS data. 5. Ping web console page attack from unknown commands. 6. Rx stuck by patching qca-wifi-10.4 (QSDK). 7. AP kernel panic when 128 clients connect and some clients are trying to reconnect. 8. CCA will reset to default when channel changed. 9. Roaming with multicast traffic will causing client cannot connect issue. 10. Abnormal roaming time recorded in system log when client connection fail. 11. Multi-channel roaming fail issue. 12. Fixed bmiss will not trigger while bgscan due to bmiss counter reset issue. 13. RSSI report format incorrect. 14. Error when old log version upgrade to the new log version. 15. RSTP looping because of no preroot_port. 16. RSTP recovery too long issue and web display bug. 17. SNMP cannot provide wireless status information. 18. Loading the file which cannot be decrypted would cause iw_web crash. 19. Incorrect interface name on LLDP status page and incorrect device name on bridge table page issue. 20. Setting the LAN IP failed when the client-router mode via wireless search utility. 21. ifXTable has null vale on SNMP. 22. Web console has incorrect information under client-router mode 23. Kernel panic while Turbo roaming is enabled. 24. Kernel panic while interface is cannot fetch noise floor at the same time. 25. Turbo Roaming chooses next AP with accurate	N/A

Software Name: Firmware for AWK-4131A Series

Version No.	Build Date No./ Release Date	Supported OS	Apply to Models	New Features/ Enhancements	Bugs Fixed/Changes	Note
					roaming difference. 26. MAC Clone should not be assigned as the multicast address. 27. If DUT is in sniffer mode, device behind Ethernet cannot access DUT. 28. Kernel panic while detecting specific DFS signal. 29. Incomplete record of LFPT event in system log. 30. Incorrect antenna selection under client mode. 31. SNMP NID not correct. 32.Clients using enterprise mode cannot reconnect while AP reboots. 33. IP setting issue via wireless search utility under client-router mode. 34. Incorrect TX power information on the web console. 35. Incorrect Wi-Fi driver state machine. 36. Cannot import decrypted configuration. 37. Issue finding AP with hidden node while turbo roaming is triggered. **Changes:** N/A	
v1.5	Build 17041601	N/A	AWK-3131A-EU, AWK-3131A-EU-T, AWK-3131A-US, AWK-3131A-US-T, AWK-3131A-JP, AWK-3131A-JP-T, AWK-4131A-EU-T, AWK-4131A-US-T, AWK-4131A-JP-T	**New Features:** N/A **Enhancements:** 1. [Web] Login denied when CSRF (Cross-Site Request Forgery) attack is detected.	**Bugs Fixed:** 1. [Accounts] Backdoor account is transparent to unauthorized users. 2. [Wireless Search Utility] Service crash during data encryption for some commands. 3. [Web] Cookies are same when multiple users access the website at the same time. 4. [Web] Web server crash, if the HTTP POST is in invalid format. 5. [Web] Web server crash, if the cookie is NULL for some URLs. **Changes:** N/A	N/A

Software Name: Firmware for AWK-4131A Series

Version No.	Build Date No./ Release Date	Supported OS	Apply to Models	New Features/ Enhancements	Bugs Fixed/Changes	Note
v1.4	Build 17031018	N/A	AWK-3131A-EU, AWK-3131A-EU-T, AWK-3131A-US, AWK-3131A-US-T, AWK-3131A-JP, AWK-3131A-JP-T, AWK-4131A-EU-T, AWK-4131A-US-T, AWK-4131A-JP-T	**New Features:** 1. [Accounts] Supports 8 accounts, including Administrators and normal users; administrators can read/write all settings, users are only allowed to read information. 2. [SNMP] AWK uses the first account (list in the first entry) out of 8 accounts for your SNMP v3. 3. [Web] Cookie is generated every time users login. 4. [Web] Web server only allows one user to send the data back to avoid CSRF (Cross-Site Request Forgery) Vulnerability. 5. [Web] A warning message suggesting using HTTPS is displayed when user is changing password via HTTP. 6. [Web] Encrypts password, before transmitting it. 7. [Wireless Search Utility] Encrypts the data between the device and Wireless Search Utility. **Enhancements:** 1. Default password changes from root to moxa.	**Bugs Fixed:** 1. [Web] File/information accessible even if user does not log in. 2. [Web] Browser will redirect to invalid web page, if the web page is tampered. 3. [Web] Unauthorized Linux commands can be run via the webpage. 4. [Web] Web server crash if the URL is invalid. **Changes:** N/A	N/A

Software Name: Firmware for AWK-4131A Series

Version No.	Build Date No./ Release Date	Supported OS	Apply to Models	New Features/ Enhancements	Bugs Fixed/Changes	Note
v1.3	Build 16100315	N/A	AWK-3131A-EU, AWK-3131A-EU-T, AWK-3131A-US, AWK-3131A-US-T, AWK-3131A-JP, AWK-3131A-JP-T, AWK-4131A-EU-T, AWK-4131A-US-T, AWK-4131A-JP-T	**New Features:** 1. SNMP supports WLAN connection status and Client/Slave connecting time. 2. Supports new regulatory standards of CE certificate and EN 300 328 V1.9.1. 3. KC and RCM certification. 4. Supports MXview Wireless Dashboard. **Enhancements:** 1. SNMP does not support "Disable" for WLAN operation mode. 2. Default value setting of TX Power is 20dBm.	**Bugs Fixed:** 1. Kernel panic when AP serves over 120 clients simultaneously. 2. Web crash when there are too many web error messages. 3. Channel information on overview page not updated when DFS channel changes. 4. SNR information issue in MXview. 5. Channel information issue in Sniffer mode. **Changes:** N/A	N/A

Software Name: Firmware for AWK-4131A Series

Version No.	Build Date No./ Release Date	Supported OS	Apply to Models	New Features/ Enhancements	Bugs Fixed/Changes	Note
v1.1	Build 15122211	N/A	AWK-3131A-EU, AWK-3131A-EU-T, AWK-3131A-US, AWK-3131A-US-T, AWK-3131A-JP, AWK-3131A-JP-T	**New Features:** 1. [Channel] 5 GHz DFS channel support. 2. [Distance] 5 GHz long-distance communication support. 3. [Diagnostics] One-key information support. 4. [Network Status] ARP Table, Bridge Status, LLDP Status, Routing Table, and RSTP Status. **Enhancements:** 1. Increased the Tx buffer from 1024 to 4096. 2. Modified Rx Packet Count (ATHR_RX_PKTS_CNT) to 100 and number of Rx Packet (AG7240_NUMBER_RX_PKTS) to 4096. 3. Removed "select all" checkboxes in all "lkogs and Notification" pages. 4. Shows SNTP in a string instead of a selection box if "IWCONFIG_SUPPORT_NTF" is not set and there's only one time-protocol option. 5. Changed the "Restart" logo.	**Bugs Fixed:** N/A **Changes:** 1. Kernel panic when AP serves over 120 Client at the same time. 2. Web crash when there are too many web error messages. 3. Fixed the channel information on Overview page when the DFS channel keeps changing. 4. Issue with the SNR information in MXview. 5. Issue with channel information in Sniffer mode.	N/A
v1.0	Build 15061120	N/A	AWK-3131A-EU, AWK-3131A-EU-T, AWK-3131A-US, AWK-3131A-US-T, AWK-3131A-JP, AWK-3131A-JP-T	**New Features:** 1. First release. **Enhancements:** N/A	**Bugs Fixed:** N/A **Changes:** N/A	N/A