SD8787 Driver/Firmware Release Note

Table of Contents

1. Package Information 3

2. Version info: 3

3. Host Platform 4

4. Tested HW 4

5. Testing 5

5.1 Test Tools: 5

5.2 WLAN Throughput 5

5.2.1 BGN 5

5.2.2 AN 6

5.2.3 WAPI 6

5.3 WLAN IOT results 6

5.4 Bluetooth IOT List 8

5.5 Wlan-BT Coex Performance Data 11

5.6 FM Functionality tests 14

6. Bug Fixes (since p40 firmware and p3 driver) 15

7. Known issues 15

8. Notes 16

Oct 11, 2010

1. Package Information

- Version: **14.57.5.p41-M2614130.P4 GM Release**

Note : Driver supports both W1 and A0/A1

2. Version info:

- SOC Version 8787
- Firmware 14.57.5.p41
  - o sd8787_uapsta.bin (AX)
  - o sd8787_uapsta_w1.bin (W1)
- Driver Package M2614130.p4
  - o mlan.ko
  - o bt8787.ko
- Marvell BT Stack
  - o mbtchar.ko

Driver version:

- M : Indicated Marvell OS independent driver
- 26 : indicated support for kernel version 2.6.x
- **Release Number:** this number tracks the incremental changes in the consequent driver releases given to QA or customers.
- **Patch Number:** Customers may want to receive a driver build based on a previous release plus specific bug fixes, or patches. It is not unusual for customers to request this when they are close to production. The patch number starts at zero (no patch), and increments as we release subsequent builds with more bug fixes.

Firmware version:

- Following is an explanation of each digit in the versioning scheme designed for the firmware:
  - **Major Revision (first number from the left):** Tracks the main FW version.
  - **Minor Revision (second number from the left):** Tracks the chip family, firmware branch,

custom projects. etc.

- **Release Number (third number from the left):** this number tracks the incremental changes in the consequent firmware releases given to QA or customers.
- **Patch Number (forth number from the left):** Customers may want to receive a firmware build based on a previous release plus specific bug fixes, or patches. It is not unusual for customers to request this when they are close to production. The patch number starts at zero (no patch), and increments as we release subsequent builds with more bug fixes.

Bluetooth Host Software version:

- BlueZ Version 4.47

WPA supplicant version:

- wpa_0.6.10-M100

3. Host Platform

- PXA920 platform Linux 2.6.29 BSP version RC5 Beta 5
- Interfaces used – WLAN over SDIO and BT over SDIO (FM share SDIO function with BT)

4. Tested HW

- WLAN SOC/RF chipset: W8787 AX

5. Software Features:

- **Wlan Client Features**
  - **802.11 n Features**
    - 802.11 a/b/g/n
    - 1 Spatial stream (1x1).
    - 11n Data rates – Up to 150 Mbps is supported (MCS 0 to MCS 7).
    - Support for Tx and Rx of AMPDU and AMSDU-4k Packets.
    - Support for Only Tx of AMSDU-8k Packets.
    - Green Field Operation.
    - STBC Rx
    - RIFS Rx
    - 20/40 MHz channel Bandwidth operation.
    - Short Guard Interval (400ns / 800ns is supported).
    - Open and Shared Authentication.
    - WEP Data encryption (64/128 bit).
    - Security (WPA-PSK, WPA2-PSK).
    - Embedded supplicant.
    - Big and Little Endian support in driver.

- **Security**
  - Open and Shared key authentication
  - WEP data encryption (64/128 bit)
  - WPA-PSK and WPA2-PSK.
  - 802.1x authentication methods

- **Power Save Modes**
  - IEEE PS
  - PPS
  - UAPSD
- **WMM**
- **WAPI**
- **WPS (PIN and PBC methods)**
- **802.11d**
- **Feature list**
  - Auto Deep Sleep
  - Support for Host Sleep
  - Background Scan
  - Auto Tx
  - ARP Filter/
  - MEF
  - WoW
  - Inactivity time out
  - Set user Scan
  - Subscriber Event
  - 802.11h
  - Vendor specific IE

- **Bluetooth**
  - BT 3.0
  - BT Class 1.5 and Class 2 support
  - Automatic Packet Type Selection
  - 2.5 scatternet support
  - Maximum of seven simultaneous ACL connections
  - Maximum of three SCO/eSCO links
  - On chip SBC offload

- ACL (DM1, DH1, DM3, DH3, DM5, DH5, 2-DH1, 2-DH3, 2-DH5, 3-DH1, 3-DH3, 3-DH5)
- SCO (HV1, HV3)
- eSCO (EV3, EV4, EV5, 2EV3, 3EV3, 2EV5, 3EV5)
- Deep Sleep
- BT A2DP/PAN traffic distinction

- **Tested Bluetooth Profiles**
  - A2DP
  - AVRCP
  - HID
  - FTP
  - OPP
  - HSP
  - HFP
  - OBEX
  - SPP
  - PBAP

- **Access Point Features**
  - **General:**
    - MAC address Filter table configuration (allowed list/banned list)
    - IEEE Power Save for associated STA's
    - Max 10 STA supported
    - Custom IEs
    - Broadcast/Multicast
    - STA Ageout feature
    - Retry Limit support
    - MMH Power Save
    - RTS/CTS
    - Fragmentation/Defragmentation
  - **802.11bg Features:**
    - Data rate Up to 54Mbps.
    - BG rate Adaptation.
    - ERP protection, Slot time, Preamble
  - **802.11a Feature**

- **802.11n Features:**
  - 20/40 MHz Channel Bandwidth Operation.
  - 2.4GHz Support.
  - 5GHz Support
  - 11n Data rates – Up to 150 Mbps is supported (MCS 0 to MCS 7)
  - 1 Spatial stream (1x1)
  - Short and long Guard Interval Operation.
  - AMPDU Tx/Rx support
  - AMSDU Rx (only AMSDU 4k) is supported. No AMSDU Tx support.
  - Green Field Operation.
  - HT Protection Mechanisms
  - MCS Rate Adaptation
  - RIFS Rx
- **802.11d Feature**
- **Security:**
  - Open and Shared key authentication
  - WEP Data Encryption (64/128 bit)
  - TKIP and AES-CCMP Encryption.
  - WPA-PSK, WPA2-PSK, WPA/WPA2 Mixed Mode Security Methods.
  - Group Key Refresh
- **WMM Support**
- **WiFi Protected Setup (WPS)**
  - uAP as internal Registrar.
  - PIN and PBC configuration methods.
- **WMM Powersave (WMM-PS)**
  - Unscheduled Automatic Powersave Delivery (UAPSD)
- **WAPI support**
- **Pre-Certifications**
  - 11n
  - WPS
  - WMM-PS

- **Wlan + BT Coexistence Features**
  - Shared LNA support
  - Co-ex tuned for 802.11bgn with aggregation support

- **FM Features:**
  - Worldwide FM band—76–108 MHz
  - Full Tx/Rx operation with reference clock, as well as 32.768 kHz external sleep clock

- Configurable Channel spacing/frequency step size (50 kHz steps)
- Dynamic switching between FM audio and Bluetooth audio
- FM control using standard SDIO interface (shared with Bluetooth) using vendor specific commands
- FM Rx feature specifics:
    - Fully customizable RDS data reporting
    - Volume control, channel seek, channel up/down and preset functionality
    - Automatic RX channels search
    - Alternate Frequency Jump Capable
    - Audio Silence Detection – Soft Mute, Mono/Stereo Blending
- FM Tx Feature specifics:
    - Automatic free TX channel search (RSSI and CMI based)
    - Simplified or extended frequency deviation settings
    - Advanced TX power management
    - Simplified RDS management
    - Silence detection with programmable level and duration
    - Programmable audio gains at FM level, adjustable dynamic range of the audio ADC

5. Testing

5.1 Test Tools:

- OmniPeek Wireless Sniffer
- iperf
- Azimuth wireless test system
- Frontline BT Sniffer

5.2 WLAN Throughput

5.2.1 BGN

Guard Interval: Long Guard

CBW	20				40			
	TCP		UDP		TCP		UDP	
	Tx	Rx	Tx	Rx	Tx	Rx	Tx	Rx
OPEN	23	32	34.3	48.7	46.3	44.9	72.7	63.5

WPA2	23.0	32.0	34.2	48.7	46.6	44.1	73	63.3

Guard Interval: Short GI								
CBW	20				40			
	TCP		UDP		TCP		UDP	
	Tx	Rx	Tx	Rx	Tx	Rx	Tx	Rx
OPEN	23.9	33.9	34.1	53.5	46.9	44.5	72.9	64.9
WPA2	22.3	34.4	34.4	53.1	51.1	44.7	73.5	62.2

5.2.2 AN

Guard Interval: Long Guard								
CBW	20				40			
	TCP		UDP		TCP		UDP	
	Tx	Rx	Tx	Rx	Tx	Rx	Tx	Rx
OPEN	23.4	26.8	38.2	46.8	39.3	29.7	75.3	64.2
WPA2	21.8	27.4	38.2	46.0	38.9	34.0	74.8	63.4

Guard Interval: Short GI								
CBW	20				40			
	TCP		UDP		TCP		UDP	
	Tx	Rx	Tx	Rx	Tx	Rx	Tx	Rx
OPEN	23.9	30.1	39.0	50.7	39.1	37.5	74.2	64.7
WPA2	22.5	28.8	38.6	50.2	41.2	32.5	73.6	64.7

5.2.3 WAPI

AP used: IWNCOMM 2410 11n, channel 6								
CBW	20						40	
	TCP		UDP		TCP		UDP	
	Tx	Rx	Tx	Rx	Tx	Rx	Tx	Rx
WAPI-PSK	30.1	21	49.4	23.3	47.6	44.9	74.3	66.7
WAPI-Cert	31.4	19	49.7	29.4	49.6	47.7	76.7	69.9

5.3 WLAN IOT results

Types	NO-WEP							
Protocol	TCP				UDP			
Ch Bandwidth	20		40		20		40	
Direction	TX	RX	TX	RX	TX	RX	TX	RX
Buffalo_WZRHP_G300N "Ver.1.65(R1.66/B1.03)"	26.4	38.4	47	51.3				
Linksys_WAP55AG	22	20.9	21.2	22.8	27.2	28.4	27.4	27.8
DLink_DIR855 "FW-1.21"	30.4	39	54.9	49.3	50.3	46.9	72.5	55.1
Linksys_WRT300N "v1.03.3"	31	39.2	31.2	38.1	51.1	47	52	46.6
TRENDnet_TEW634GRU "1.00.23"			27.8	35.9			50.8	16.2
TRENDnet_TEW633GR "1.0.4.3"	25.9	34.7	33.5	51.4	51.5	45.9	73.5	60.8
Tenda_W311R "3.2.5j"	36.5	40.5	54.7	48.7	50.8	57.3	72.8	57.1
Belkin_F5D8232 "F5D8232-4_WW_2.00.04"	37	38	49.2	49.1	53.2	48.2	72.3	56.3
Corega_WLBARGNS "1.20"	NR_225	NR	48.6	47	NR_22	R_230	72.5	64.8
Corega_WLRGNX "1.00"	32.3	34.5	54.9	36.6	47.9	50.8	70.6	51.8

Types	WPA2-AES							
Protocol	TCP				UDP			
Ch Bandwidth	20		40		20		40	
Direction	TX	RX	TX	RX	TX	RX	TX	RX
Buffalo_WZRHP_G300N "Ver.1.65(R1.66/B1.03)"	27.3	24.6	45.3	50.6				
Linksys_WAP55AG	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DLink_DIR855 "FW-1.21"	30.2	36.4	51.1	48.6	50.4	39.9	71.6	55.3
Linksys_WRT300N "v1.03.3"	35.3	37.9	36.3	38.2	51.6	40.6	50.6	41

TRENDnet_TEW634GRU "1.00.23"	29.7	35	31.1	33.7	50.6	33.1	51.4	16.4
TRENDnet_TEW633GR "1.0.4.3"	22.9	33.4	45.3	51.4	50.9	44.9	73.6	59.3
Tenda_W311R "3.2.5j"	35.5	40.2	45.9	47.3	49.9	52.6	72.6	63.1
Belkin_F5D8232 "F5D8232-4_WW_2.00.04"	34.2	35.2	44.3	49.1	53.4	47.2	72.3	62.1
Corega_WLBARGNS "1.20"	34.7	34.6	47.1	46.5	50.2	47	72.7	64.1
Corega_WLRGNX "1.00"	33.4	35.5	50	33.7	42.6	47.4	69.3	46.5

5.4 Bluetooth IOT List

Device	Profile tested
Motorola S9-BDR (Red) HFP/HSP, A2DP, AVRCP	1. Pairing 2. Device Power off/on reconnection 3. UUT Power off/on Reconnection 4. Out of range reconnection 5. HFP/HSP: Audio, Accepting call, Ending call, redial 6. A2DP streaming 7. AVRCP Cat 1
Motorola S9-EDR (Black) HFP/HSP, A2DP, AVRCP	1. Pairing 2. Device Power off/on reconnection 3. UUT Power off/on Reconnection 4. Out of range reconnection 5. HFP/HSP: Audio, Accepting call, Ending call, redial 6. A2DP streaming 7. AVRCP Cat 1

Motorola HT-820 HFP/HSP, A2DP, AVRCP	1. Pairing 2. Device Power off/on reconnection 3. UUT Power off/on Reconnection 4. Out of range reconnection 5. HFP/HSP: Audio, Accepting call, Ending call, redial 6. A2DP streaming 7. AVRCP Cat 1
Parrot MK6100 HFP/HSP, A2DP, AVRCP, PBAP PCE	1. Pairing 2. Device Power off/on reconnection 3. UUT Power off/on Reconnection 4. Out of range reconnection 5. HFP/HSP: Audio, Accepting call, Ending call, redial 6. A2DP streaming 7. AVRCP Cat 1 8. PBAP PCE
Yamaha NX-B02 A2DP	1. Pairing 2. Device Power off/on reconnection 3. UUT Power off/on Reconnection 4. Out of range reconnection 5. A2DP streaming
Jabra Stone (v2.1) HFP/HSP, A2DP, AVRCP	1. Pairing 2. Device Power off/on reconnection 3. UUT Power off/on Reconnection 4. Out of range reconnection 5. A2DP streaming
Jabra JX10 HFP/HSP	1. Pairing 2. Device Power off/on reconnection 3. UUT Power off/on Reconnection 4. Out of range reconnection
Sony BT101 (v2.1+EDR) HFP/HSP, A2DP, AVRCP	1. Pairing 2. Device Power off/on reconnection 3. UUT Power off/on Reconnection 4. Out of range reconnection 5. HFP/HSP: Audio, Accepting call, Ending call, redial 6. A2DP streaming 7. AVRCP Cat 1

Samsung WEP870 HFP/HSP, A2DP, AVRCP	1. Pairing 2. Device Power off/on reconnection 3. UUT Power off/on Reconnection 4. Out of range reconnection 5. HFP/HSP: Audio, Accepting call, Ending call, redial 6. A2DP streaming 7. AVRCP Cat 1
Tenqa HFP/HSP, A2DP, AVRCP	1. Pairing 2. Device Power off/on reconnection 3. UUT Power off/on Reconnection 4. Out of range reconnection 5. HFP/HSP: Audio, Accepting call, Ending call, redial 6. A2DP streaming 7. AVRCP Cat 1
Motorola H500 HFP/HSP	1. Pairing 2. Device Power off/on reconnection 3. UUT Power off/on Reconnection 4. Out of range reconnection
Jabra 4051 HFP/HSP	1. Pairing 2. Device Power off/on reconnection 3. UUT Power off/on Reconnection 4. Out of range reconnection
Sone PS3-CEJH-15002 HFP/HSP	1. Pairing 2. Device Power off/on reconnection 3. UUT Power off/on Reconnection 4. Out of range reconnection 5. HFP/HSP: Audio, Accepting call, Ending call, redial
Jabra 8041 (v2.1) HFP/HSP, A2DP, AVRCP	1. Pairing 2. Device Power off/on reconnection 3. UUT Power off/on Reconnection 4. Out of range reconnection 5. HFP/HSP: Audio, Accepting call, Ending call, redial 6. A2DP streaming 7. AVRCP Cat 1

Sony Erisson HBH-IS800 (v2.1+EDR) HFP/HSP, A2DP, AVRCP	1. Pairing 2. Device Power off/on reconnection 3. UUT Power off/on Reconnection 4. Out of range reconnection 5. HFP/HSP: Audio, Accepting call, Ending call, redial 6. A2DP streaming 7. AVRCP Cat 1
Samsung HB500 HFP/HSP, A2DP, AVRCP	1. Pairing 2. Device Power off/on reconnection 3. UUT Power off/on Reconnection 4. Out of range reconnection 5. HFP/HSP: Audio, Accepting call, Ending call, redial 6. A2DP streaming 7. AVRCP Cat 1
Soy Erricsson HBH-DS980 A2DP/AVRCP, HFP	1. Pairing 2. Device Power off/on reconnection 3. UUT Power off/on Reconnection 4. Out of range reconnection 5. HFP/HSP: Audio, Accepting call, Ending call, redial 6. A2DP streaming 7. AVRCP Cat 1
Motorola S605 (v2.1+EDR) HFP/HSP, A2DP, AVRCP	1. Pairing 2. Device Power off/on reconnection 3. UUT Power off/on Reconnection 4. Out of range reconnection 5. HFP/HSP: Audio, Accepting call, Ending call, redial 6. A2DP streaming 7. AVRCP Cat 1
LG810CT OPP Server/Client	1. Pairing 2. OPP Push 3. OPP Server
Nexus One OPP	1. Pairing 2. OPP Push 3. OPP Server
Blackberry 8900 OPP	1. Pairing 2. OPP Push 3. OPP Server

5.5 Wlan-BT Coex Performance Data

AP95		
AP95	Motorola 820 IEEE-PSPOLL	
11n	TX (Mbps)	RX (Mbps)
	A2DP-BDR (Mode1)	
TCP	6.4	5.8
UDP	10.3	6.9
AP95	Motorola 820 IEEE-PSPOLL	
11n	TX (Mbps)	RX (Mbps)
	A2DP-EDR (Mode1)	
TCP	6.5	5.7
UDP	9.2	6.4
DIR855		
DIR855	Motorola 820 IEEE-PS-POLL	
11n	TX (Mbps)	RX (Mbps)
	A2DP (Mode1)	
TCP	6.3	5.4
UDP	7.8	6.6
DIR855	EDR Headset (Sony Erission HBH205) – IEEE PSPOLL	
11n	TX (Mbps)	RX (Mbps)
	A2DP (Mode1)	
TCP	9.1	6.8
UDP	10.4	7.2
DIR855	EDR Headset (Sony Erission HBH205) – IEEE-PS-POLL	

11n	TX (Mbps)	RX (Mbps)
	SCO (Mode1)	
TCP	6.4	4.4
UDP	21	5.6
Buffalo-WZRHPG300N		
WZRHPG300N	BDR Headset (Motorola 820) – IEEE-PS-POLL	
11n	TX (Mbps)	RX (Mbps)
	A2DP (Mode1)	
TCP	7.3	6.2
UDP	9.5	8.1
WZRHPG300N	EDR Headset (Sony Erission HBH205) – IEEE PS POLL	
11n	TX (Mbps)	RX (Mbps)
	A2DP (Mode1)	
TCP	7.2	6.7
UDP	9.5	8.1
WZRHPG300N	EDR Headset (Sony Erission HBH205) – IEEE-PS-POLL	
11n	TX (Mbps)	RX (Mbps)
	eSCO (Mode1)	
TCP	9.3	7.7
UDP	31	8.3
Apple-TimeCapsule		
TimeCapsule	Motorola 820 – IEEE-PS-POLL	
11n	TX (Mbps)	RX (Mbps)

	A2DP (Mode1)	
TCP	6.7	5.1
UDP	8.1	5.8
TimeCapsule	EDR Headset (Sony Erission HBH205) – IEEE PS POLL	
11n	TX (Mbps)	RX (Mbps)
	A2DP (Mode1)	
TCP	6.8	4.9
UDP	7.1	5.8

5.6 FM Functionality tests

FM FUNCITONALITY TEST	Status
1.1 API	
FM Initialize	OK
FM Set/Get Channel - Manual	OK
FM Set/Get Channel - Autosearch	OK
FM Get Current RSSI	OK
FM Get Firmware Version	OK
1.2 General Functions	
FM_GEN Transmit on selected channels - US/Japan band	OK
FM_GEN Receive on selected channels - US/Japan band	OK
FM_GEN Transmit configurable channel spacing - 100 KHz step	OK
1.3 FM Rx	
FM RX Audio path over Analog FM	OK
FM RX Audio path over I2S_FM	OK
FM RX RDS 0A	OK
FM RX RDS 0B	OK
FM RX RDS 2A	OK
FM RX RDS 2B	OK
1.4 FM Tx	
FM_RDS_TX_0A_PS_ScrollOff	OK
FM_RDS_TX_2A_DataLength_16segments	OK

FM_RDS_TX_2B_DataLength_Less16segments	OK

6. Bug Fixes (since p40 firmware and p3 driver)

Component	Area	Description
Wlan Client	Firmware	1. MMH (uAP) stops responding to any command within 5 seconds with TCP Rx traffic between STA and AP 2. AMPDU does not work if MMH is loaded with drv_mode=2 3. Implement WPS IE handling in scan report feature
	Driver	Implement WPS IE handling in scan report feature driver side
BT	Firmware	Fix for connection timeout as a slave during connection setup.
	Driver	N/A
FM	Firmware	N/A

7. Known issues

Component	Description
BT	1. Sometime page timeout can happen in noisy environment
BT-Coex	1. while associated with Netgear 3700 not ping when BT paired and connected with headset Sony Ericsson HBH205 headset 2. Audio streaming may be affected during scanning under certain conditions
Wlan Client	1. May take longer to associate to hidden ssid APs on DKB 920

	2. BSP changes may affect WLAN throughput 3.

8. Notes

BT Testing done using the following headset's

- Sony Ericcson HBH205[eSCO]
- Motorola S605[eSCO]

	Description
1	Wlan-BT Coex Usage with Aggregation enabled **WLAN Commands:** **Coex mode 1:** iwpriv mlan0 version iwpriv mlan0 httxcfg 0x62 iwpriv mlan0 htcapinfo 0x1820000 iwconfig mlan0 essid ap-coex sleep 2 iwconfig mlan0 power on PPS: iwpriv mlan0 qoscfg 0 iwpriv mlan0 sleeppd 20 UAPSD: iwpriv mlan0 qoscfg 0x2f iwpriv mlan0 sleeppd 20 **BT Commands:** Bluez version: 4.56 Bitrate: 320Kb/s UUT role: Master test-device create <BD Address> hci0 mpg123 –Z –w - 001.mp3 | aplay –N –D a2dp
2	Wlan-BT Coex Usage for PPS/UAPSD (Wlan in BG Only Mode) (use CiscoAP 1250 for PPS/UAPSD) WLAN Commands UAPSD:

	iwpriv mlan0 qoscfg 0x2f iwpriv mlan0 sleeppd 20 iwconfig mlan0 essid ap-coex sleep 2 iwconfig mlan0 power on ifconfig mlan0 192.168.222.133 PPS iwpriv mlan0 sleeppd 20 iwconfig mlan0 essid ap-coex sleep 2 iwconfig mlan0 power on ifconfig mlan0 192.168.222.133 General Info: Board: SLNA board AP: CiscoAP 1250 WLAN: UAPSD, No Security, Aggregation disabled only on UUT, sleep period – 20ms, channel width-20MHz. BT: SDIO Environment: Shield room BT A2DP setting: Subbands - 1, Blocks - 1, Bitpool - 32. BT Ref client: Moto HT820[BDR], Logitech Pulse[EDR] UUT role: Master Iperf Time: 60 secs Procedure: 1. Load WLAN and BT driver 2. Disable roleswitch: hciconfig hci0 lp sniff

	3. Create A2DP connection and listen to audio for 5 mins. 4. Create UAPSD or PPS connection 5. Check sniffer for qos_null or ps_poll pkts[sleep period - 20ms] 6. Send iperf traffic to measure throughput
3	Expected power consumption for TX, RX (active and idle) as well as DS and IEEE PS.
4	BT BITE Pre-qualification completed
5	Performace tuning for 19.2MHz ref clock in progress for W1
6	Support for Rev W0/W1
7	Adhoc Usage No Security iwconfig mlan0 mode ad-h iwconfig mlan0 essid <SSID> WEP64 iwconfig mlan0 mode ad-h iwconfig mlan0 key [1] 1234567890 iwconfig mlan0 key <open|restricter> iwconfig mlan0 key [1] iwconfig mlan0 essid <SSID> WEP128 iwconfig mlan0 mode ad-h iwconfig mlan0 key [1] 12345678901234567890123456 iwconfig mlan0 key <open|restricted> iwconfig mlan0 key [1] iwconfig mlan0 essid <SSID> AES iwconfig mlan0 mode ad-h iwpriv mlan0 adhocaes "1;12345678"

	iwconfig mlan0 essid <SSID>
8	BT coex scheme is enabled by default. To disable Robust Coex Scheme ./mlanconfig mlan0 hostcmd config/robust_btc.conf robust_btc_disable
9	This release is supported for both W1 and A0