SN8200/SN8200UFL Wi-Fi Network Controller Module
SNIC Software Package Release Notes

Note:
This package requires SN8200 EVK+ (p/n 88-00151-95) or SN8200UFL EVK+ (p/n 88-00151-97) and is not supported on the legacy SN8200 EVK (88-00151-85).

Please register with Murata Wireless Solutions website for the latest software updates.

Test Package Version: SNIC-8200-03-44041
Release date: 04/04/2014
Firmware Version: 03.41021
SNIC Monitor PC Tool Version: 3.0.44041

Package Components:
- SN8200 SNIC EVK+ Quick Start Guide
- SN8200 SNIC EVK+ User Guide (v2.0)
- SN82XX EVB JZ150 SCH (v1.0)
- SN82XX SNIC EZ Web Wizzard User Manual (v1.5)
- SN82XX EZ Web Wizzard Simple Web Services URIs (v1.5)
- SNIC_EWW application: SN8200-SNIC-EWW-03-44041.bin
- SNIC_UART application: SN8200-SNIC-UART-03-44041.bin
- SNIC_SPI application: SN8200-SNIC-SPI-03-44041.bin
- SN82XX SNIC Serial Interface Specification (v2.3)
- SN82XX SNIC UART Serial Interface User Manual (v1.5).
- SN82XX SNIC UART Sample Application User Guide (v1.4)
- SN82XX SNIC SPI Serial Interface User Manual (v1.0)
- SN82XX SNIC SPI Sample Application User Guide (v1.2)
- SNIC Monitor PC Tool application: setup.exe, Setup.msi (v3.0.44041)
- SNIC_UART sample host app: testclient
- SNIC_SPI sample host app: 8200mmi spi_driver
- SNIC_UART PC test tool: testserver
- SNIC_SLA.pdf
- FTDI PC drivers (USB-JTAG, USB-Serial)
- OpenOCD PC driver
- Release Notes

Software Features:
- IEEE802.11b/g/n
- WPA PSK, WPA2 PSK
- ICMP (Ping response)
- HTTP Server (Soft AP/STA)

- HTTP(S) Client (STA)
- DHCP Server (Soft AP)
- DNS Server (Soft AP)
- DHCP Client (STA)
- DNS Resolver (STA)
- TCP
- UDP
- TLS1.0/1.1 and SSL 3.0
- WPS

SNIC_EWW capabilities and constraints:
- Maximum UART payload size (bytes):
  - Web client to SN8200 UART port: 950
  - SN8200 UART port to web client: 950
- Maximum I2C payload size (bytes):
  - Web client to SN8200 I2C port: 128
  - SN8200 I2C port to web client: 128

SNIC_UART and SNIC_SPI capabilities and constraints:
- Maximum serial protocol payload size (bytes):
  - Host to SN8200: 2048
  - SN8200 to host:
    - 1483 (SNIC_UART only)
    - 2586 (SNIC_SPI only)
- Maximum socket available is 12 total
  - Soft AP configuration uses (3 UDP, 1 TCP) in default FW
  - The number of actual available sockets is returned by SNIC_INIT_RSP. See "SN82XX SNIC Serial Interface Specification" for details.
  - Maximum 3 TCP listening sockets, with each accepting up to 4 connections. Actual connection number is limited by available sockets.
  - Only 1 TLS socket connection can exist at any time. A TLS server socket can only accept one connection.
- Socket option Broadcast is always enabled
- Socket in connection state is always blocking

Release Components:

Component	Description
SNIC_UART application: SN8200-SNIC-UART-03-41021.bin	• Disabled WiFi power save mode by default
SNIC_EWW application: SN8200-SNIC-EWW-03-41021.bin	• Disabled WiFi power save mode by default
SNIC_SPI application: SN8200-SNIC-SPI-03-41021.bin	• No change

Component	Description
SNIC Monitor PC Tool application: setup.exe, Setup.msi	• Added support for soft AP DHCP server IP range assignment
SNIC_UART sample host app source: testclient	• No change
SNIC_SPI sample host app source: 8200mmi spi_driver	• No change
SNIC_UART PC test tool source: testserver	• No change
SNIC_EWW sample web contents: webroot, webroot1	• No change

Known issues:

1. SNIC_EWW: Successful IP config response does not guarantee a valid IP is obtained. Use Get DHCP info command to verify. If Get DHCP info command fails or the IP shown is 0, then something is wrong and user should leave the network, check join parameters and re-join.
WEP security is not working under EWW.

2. SNIC_UART or SNIC_SPI:
For TLS socket, SN8200 can only receive a maximum of 7K bytes at a time.
For WEP security, if WEP key is not correct, the join response can still be successful. If IP obtained from DHCP is 0, it may indicate an incorrect WEP key. In that case, leave the network, enter the correct WEP key and re-join.

SN8200/SN8200UFL Wi-Fi Network Controller Module
SNIC Software Package Release Notes

Note:
This package requires SN8200 EVK+ (p/n 88-00151-95) or SN8200UFL EVK+ (p/n 88-00151-97) and is not supported on the legacy SN8200 EVK (88-00151-85).

Please register with Murata Wireless Solutions website for the latest software updates.

Test Package Version:	SNIC-8200-03-41021
Release date:	01/24/2014
Firmware Version:	03.41021
SNIC Monitor PC Tool Version:	3.0.41021

Package Components:

- SN8200 SNIC EVK+ Quick Start Guide
- SN8200 SNIC EVK+ User Guide (v2.0)
- SN82XX EVB JZ150 SCH (v1.0)
- SN82XX SNIC EZ Web Wizzard User Manual (v1.5)
- SN82XX EZ Web Wizzard Simple Web Services URIs (v1.5)
- SNIC_EWW application: SN8200-SNIC-EWW-03-41021.bin
- SNIC_UART application: SN8200-SNIC-UART-03-41021.bin
- SNIC_SPI application: SN8200-SNIC-SPI-03-41021.bin
- SN82XX SNIC Serial Interface Specification (v2.3)
- SN82XX SNIC UART Serial Interface User Manual (v1.5).
- SN82XX SNIC UART Sample Application User Guide (v1.4)
- SN82XX SNIC SPI Serial Interface User Manual (v1.0)
- SN82XX SNIC SPI Sample Application User Guide (v1.2)
- SNIC Monitor PC Tool application: setup.exe, Setup.msi (v3.0.41021)
- SNIC_UART sample host app: testclient
- SNIC_SPI sample host app: 8200mmi spi_driver
- SNIC_UART PC test tool: testserver
- SNIC_SLA.pdf
- FTDI PC drivers (USB-JTAG, USB-Serial)
- OpenOCD PC driver
- Release Notes

Software Features:

- IEEE802.11b/g/n

- WPA PSK, WPA2 PSK
- ICMP (Ping response)
- HTTP Server (Soft AP/STA)
- HTTP(S) Client (STA)
- DHCP Server (Soft AP)
- DNS Server (Soft AP)
- DHCP Client (STA)
- DNS Resolver (STA)
- TCP
- UDP
- TLS1.0/1.1 and SSL 3.0
- WPS

SNIC_EWW capabilities and constraints:
- Maximum UART payload size (bytes):
  - Web client to SN8200 UART port: 950
  - SN8200 UART port to web client: 950
- Maximum I2C payload size (bytes):
  - Web client to SN8200 I2C port: 128
  - SN8200 I2C port to web client: 128

SNIC_UART and SNIC_SPI capabilities and constraints:
- Maximum serial protocol payload size (bytes):
  - Host to SN8200: 2048
  - SN8200 to host:
    - 1483 (SNIC_UART only)
    - 2586 (SNIC_SPI only)
- Maximum socket available is 12 total
  - Soft AP configuration uses (3 UDP, 1 TCP) in default FW
  - The number of actual available sockets is returned by SNIC_INIT_RSP. See "SN82XX SNIC Serial Interface Specification" for details.
  - Maximum 3 TCP listening sockets, with each accepting up to 4 connections. Actual connection number is limited by available sockets.
  - Only 1 TLS socket connection can exist at any time. A TLS server socket can only accept one connection.
- Socket option Broadcast is always enabled
- Socket in connection state is always blocking

Release Components:

Component	Description
SNIC_UART application: SN8200-SNIC-UART-03-41021.bin	• Added web content upgrade function • Added BSSID and channel option in Join command • Added soft reset and get client list command API • Added KEEPALIVE socket options and WiFi power save mode control

Component	Description
SNIC_EWW application: SN8200-SNIC-EWW-03-41021.bin	• Added support for UART break • Added web content upgrade function
SNIC_SPI application: SN8200-SNIC-SPI-03-41021.bin	• Added web content upgrade function • Added BSSID and channel option in Join command • Added soft reset and get client list command API • Added KEEPALIVE socket options and WiFi power save mode control
SNIC Monitor PC Tool application: setup.exe, Setup.msi	• Added web content image generation function • Added test scripts for new APIs • Fixed soft AP config issue on SPI firmware
SNIC_UART sample host app source: testclient	• No change
SNIC_SPI sample host app source: 8200mmi spi_driver	• No change
SNIC_UART PC test tool source: testserver	• No change
SNIC_EWW sample web contents: webroot, webroot1	• Added support for UART break

Known issues:

3. SNIC_EWW: Successful IP config response does not guarantee a valid IP is obtained. Use Get DHCP info command to verify. If Get DHCP info command fails or the IP shown is 0, then something is wrong and user should leave the network, check join parameters and re-join.
WEP security is not working under EWW.

4. SNIC_UART or SNIC_SPI:
For TLS socket, SN8200 can only receive a maximum of 7K bytes at a time.
For WEP security, if WEP key is not correct, the join response can still be successful. If IP obtained from DHCP is 0, it may indicate an incorrect WEP key. In that case, leave the network, enter the correct WEP key and re-join.

SN8200/SN8200UFL Wi-Fi Network Controller Module
SNIC Software Package Release Notes

Note:
This package requires SN8200 EVK+ (p/n 88-00151-95) or SN8200UFL EVK+ (p/n 88-00151-97) and is not supported on the legacy SN8200 EVK (88-00151-85).

Please register with Murata Wireless Solutions website for the latest software updates.

Release Package Version:	SNIC-8200-03-37191
Release date:	07/19/2013
Firmware Version:	03.37191
SNIC Monitor PC Tool Version:	3.0.36191

Package Components:
- SN8200 SNIC EVK+ Quick Start Guide
- SN8200 SNIC EVK+ User Guide (v2.0)
- SN82XX EVB JZ150 SCH (v1.0)
- SN82XX SNIC EZ Web Wizzard User Manual (v1.3)
- SN82XX EZ Web Wizzard Simple Web Services URIs (v1.3)
- SN82XX SNIC Serial Interface Specification (v2.1)
- SN82XX SNIC UART Serial Interface User Manual (v1.4).
- SN82XX SNIC UART Sample Application User Guide (v1.4)
- SN82XX SNIC SPI Serial Interface User Manual (v1.0)
- SN82XX SNIC SPI Sample Application User Guide (v1.2)
- SNIC_EWW application: SN8200-SNIC-EWW-03-37191.bin
- SNIC_UART application: SN8200-SNIC-UART-03-37191.bin
- SNIC_SPI application: SN8200-SNIC-SPI-03-37191.bin
- SNIC Monitor PC Tool application: setup.exe, Setup.msi (v3.0.36191)
- SNIC_UART sample host app: testclient
- SNIC_SPI sample host app: 8200mmi spi_driver
- SNIC_UART PC test tool: testserver
- SNIC_SLA.pdf
- FTDI PC drivers (USB-JTAG, USB-Serial)
- OpenOCD PC driver
- Release Notes

Software Features:
- IEEE802.11b/g/n
- WPA PSK, WPA2 PSK
- ICMP (Ping response)
- HTTP Server (Soft AP/STA)
- HTTP(S) Client (STA)

- DHCP Server (Soft AP)
- DNS Server (Soft AP)
- DHCP Client (STA)
- DNS Resolver (STA)
- TCP
- UDP
- TLS1.0/1.1 and SSL 3.0
- WPS

SNIC_EWW capabilities and constraints:
- Maximum UART payload size (bytes):
  - Web client to SN8200 UART port: 950
  - SN8200 UART port to web client: 950
- Maximum I2C payload size (bytes):
  - Web client to SN8200 I2C port: 128
  - SN8200 I2C port to web client: 128

SNIC_UART and SNIC_SPI capabilities and constraints:
- Maximum serial protocol payload size (bytes):
  - Host to SN8200: 2048
  - SN8200 to host:
    - 1157 (SNIC_UART only)
    - 2586 (SNIC_SPI only)
- Maximum IP network buffer is 22500 bytes
- Maximum socket available is 12 total
  - Soft AP configuration uses (3 UDP, 1 TCP) in default FW
  - The number of actual available sockets is returned by SNIC_INIT_RSP. See "SN82XX SNIC Serial Interface Specification" for details.
  - Maximum 3 TCP listening sockets, with each accepting up to 4 connections. Actual connection number is limited by available sockets.
  - Only 1 TLS socket connection can exist at any time. A TLS server socket can only accept one connection.
- Socket option Broadcast is always enabled
- Socket in connection state is always blocking

Release Components:

Component	Description
SNIC_UART application: SN8200-SNIC-UART-03-37191.bin	• Added support for SN8200UFL • Added WPS support • Added support for TLS/SSL • Added support for HTTP/HTTPS client in STA • Expanded soft AP control API • Fixed bug for UDP multicast

Component	Description
SNIC_EWW application: SN8200-SNIC-EWW-03-37191.bin	• Added support for SN8200UFL • Added WPS support • Expanded soft AP control URI
SNIC_SPI application: SN8200-SNIC-SPI-03-37191.bin	• New component added • Supports same networking feature as SNIC_UART
SNIC Monitor PC Tool application: setup.exe, Setup.msi	• Added WPS in Network Config view • Added WPS configuration in Firmware Config view • Expanded soft AP control UI • Added TLS certificate import to firmware function
SNIC_UART sample host app source: testclient	• Added HTTP(S) client, TLS socket testing functions
SNIC_SPI sample host app source: 8200mmi spi_driver	• New component added
SNIC_UART PC test tool source: testserver	• No change
SNIC_EWW sample web contents: webroot, webroot1	• Added WPS in Scan and join web page • Expanded soft AP control UI

Known issues:

1. For WEP security, if WEP key is not correct, the join response can still be successful. If IP obtained from DHCP is 0, it may indicate an incorrect WEP key. In that case, leave the network, enter the correct WEP key and re-join.

2. SNIC_EWW: Successful IP config response does not guarantee a valid IP is obtained. Use Get DHCP info command to verify. If Get DHCP info command fails or the IP shown is 0, then something is wrong and user should leave the network, check join parameters and re-join.

3. SNIC_UART or SNIC_SPI: For TLS connection, fragmentation is not currently supported. So SN8200 can only receive packets that are less than 1152 bytes in size.

SyChip SN8200 Wi-Fi Network Controller Module
SNIC EZ Web Wizzard Software Package Release Notes

Note:
This package requires SN8200 EVK+ (p/n 88-00151-95) and is not supported on the legacy SN8200 EVK (88-00151-85).

Please register with Murata Wireless Solutions website for the latest software updates.

Release Package Version:	SNIC-EWW-02-31311
Release date:	01/31/2013
Firmware Version:	02.31311
SNIC Monitor PC Tool Version:	2.0.31311

Package Components:
- SN8200 SNIC EVK+ Quick Start Guide
- SN82XX EVB JZ150 SCH (v1.0)
- SN8200 SNIC EVK+ User Guide (v1.8)
- SN8200 SNIC EZ Web Wizzard User Manual (v1.1)
- SN8200 EZ Web Wizzard Simple Web Services URIs (v1.1)
- SN8200 SNIC Serial Interface Specification (v1.7)
- SN8200 SNIC UART Serial Interface User Manual (v1.0)
- SN8200 SNIC UART Sample Application User Guide (v1.1)
- SNIC_EWW application: SN8200-SNIC-EWW-02-31311.bin
- SNIC_UART application: SN8200-SNIC-UART-02-31311.bin
- SNIC Monitor PC Tool application: setup.exe, Setup.msi
- SNIC_SLA.pdf
- FTDI PC drivers (USB-JTAG, USB-Serial)
- OpenOCD PC driver
- Release Notes

Software Features:
- IEEE802.11b/g/n
- WPA PSK, WPA2 PSK
- ICMP (Ping response)
- HTTP Server (Soft AP/STA)
- DHCP Server (Soft AP)
- DNS Server (Soft AP)
- DHCP Client (STA)
- DNS Resolver (STA)
- TCP
- UDP

SNIC_EWW capabilities and constraints:

- Maximum UART payload size (bytes):
  - ○ Web client to SN8200 UART port: 950
  - ○ SN8200 UART port to web client: 950
- Maximum I2C payload size (bytes):
  - ○ Web client to SN8200 I2C port: 128
  - ○ SN8200 I2C port to web client: 128

SNIC_UART capabilities and constraints:

- Maximum serial protocol payload size (bytes):
  - ○ Host to SN8200: 2048
  - ○ SN8200 to host: 1157
- Maximum IP network buffer is 24000 bytes
- Maximum socket available is 13 total
  - ○ Soft AP configuration uses (3 UDP, 1 TCP) in default FW
  - ○ The number of actual available sockets is returned by SNIC_INIT_RSP. See "SN8200 SNIC Serial Interface Specification" for details.
  - ○ Maximum 3 TCP listening sockets, with each accepting up to 4 connections. Actual connection number is limited by available sockets.
- Socket option Broadcast is always enabled
- Socket in connection state is always blocking
- Always perform a leave operation before performing the join operation

Initial Release Components:

Component	Description
SNIC_EWW application: SN8200-SNIC-EWW-02-31311.bin SNIC_UART application: SN8200-SNIC-UART-02-31311.bin	Features • Soft AP and STA startup parameter configuration • Soft AP and STA with HTTP server • WIFI API • IP API • UART API • I2C API (SHT21 sensor demo) • GPIO API
SNIC Monitor PC Tool application: setup.exe, Setup.msi	Features • Support all the above, plus • Web configuration • Platform configuration • Firmware download
SNIC_EWW sample web contents: webroot, webroot1	Features • Demonstrate the above functionalities.

Component	Description
SNIC_UART sample host app source: testclient, testserver	• Demonstrate the SNIC serial interface APIs and usage.

Known issues:

1. For WEP security, if WEP key is not correct, the join response can still be successful. If IP obtained from DHCP is 0, it may indicate an incorrect WEP key. In that case, leave the network, enter the correct WEP key and re-join.

2. Successful IP config response does not guarantee a valid IP is obtained. Use Get DHCP info command to verify. If Get DHCP info command fails or the IP shown is 0, then something is wrong and user should leave the network, check join parameters and re-join.

(END)