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# R206 Firmware Release Notes

## V3.0

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## Revision Record

Date	Revision version	FW Version	HW Version	Change Description	Author
2013-2-2	V1.0	21.143.03.00.11	CH1E5220SM	Created for version	R206 Team
2013-3-11	V2.0	21.143.05.00.11	CH1E5220SM	Created for version	R206 Team
2013-4-15	V3.0	21.143.09.00.11	CH1E5220SM	Created for version	R206 Team

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# R206 Firmware Release Notes V2.0

## 1 Main Features

The R206 mainly supports the following features:

- HSPA+ (DL) data service of up to 21.6 Mbit/s
- HSPA+ (UL) data service of up to 5.76 Mbit/s
- HSDPA (DL) data service of up to 14.4 Mbit/s
- HSUPA (UL) data service of up to 5.76 Mbit/s
- UMTS data service of up to 384 kbit/s
- EDGE data service of up to 236.8 kbit/s
- GPRS data service of up to 85.6 kbit/s
- PS domain data service based on UMTS and GSM
- SMS based on CS/PS domain of GSM and UMTS
- Wi-Fi
- Plug and Play (PnP)
- IPv6 /IPv4 dual stack
- Built-in DHCP Server, DNS RELAY and NAT
- Traffic statistic
- Standard Micro USB interface
- LED indicators
- Built-in UMTS and WLAN high gain antenna
- Windows XP/ Windows Vista/ Windows 7/ Windows 8/ MAC OS X 10.6/ 10.7 and 10.8.

## 2 Hardware

### 2.1 Version Description

Hardware Version:	CH1E5220SM
Platform & Chipset:	Hisilicon Hi6760/Hi6451/Hi6360

### 2.2 Hardware Specifications

Item	Specifications	
Technical Standard	WAN: HSPA+/HSPA/UMTS/EDGE/GPRS/GSM WLAN: IEEE 802.11b/g/n	
Operating Frequency	HSPA+/HSPA/UMTS	2100/900 MHz
	EDGE/GPRS/GSM	1900/1800/900/850 MHz
	WLAN	2400–2483 MHz

Maximum Transmitter Power	UMTS	24(+1/-3)dBm
	WLAN	802.11b: 14(+/-3)dBm
		802.11g: 11(+/-3)dBm
		802.11n: 9(+/-3)dBm
Maximum Power Consumption	3.5 W	
Memory	128 MB flash and 64 MB Memory	
WLAN Rate	802.11b: Up to 11 Mbit/s	
	802.11g: Up to 54 Mbit/s	
	802.11n: support for MCS0–MCS7; up to 72.2 Mbit/s	
External Interfaces	USB interface: Micro USB	
	SIM/USIM card: standard 6-pin SIM card interface	
Indicators	LED indicators: Signal, Wi-Fi, Battery, SMS	
Keys	Wi-Fi/Power multiplexing key, WPS switch, and Reset key	
Antenna	<ul style="list-style-type: none"> <li>Built-in UMTS/GSM main antenna</li> <li>Built-in UMTS diversity antenna</li> <li>Built-in WLAN antenna</li> </ul>	
Static Receiver Sensitivity	UMTS: -106dBm	
	WLAN 802.11b	-76 dBm@11 Mbit/s
		-82 dBm@1 Mbit/s
	WLAN 802.11g: -65 dBm@54 Mbit/s	
	WLAN 802.11n: -64 dBm@65 Mbit/s	
Power Supply	<ul style="list-style-type: none"> <li>AC: 100-240 V</li> <li>DC: 5 V, 1 A</li> </ul>	
Battery	<ul style="list-style-type: none"> <li>Type: Li (Rechargeable and removable)</li> <li>Capacity: 3.7 V, 1150 mAh</li> </ul>	
Dimensions (D × W × H)	90.5 mm × 56 mm × 14.4 mm	
Weight	about 66 g (including the battery)	
Ambient Temperature	<ul style="list-style-type: none"> <li>Operating: 0°C to +35°C</li> <li>Storage: -20°C to +60°C</li> </ul>	
Humidity	5% to 95% (non-condensing)	

## 2.3 Improvements in the Previous Version

Index	Case ID	Issue Description
NA		

## 2.4 Known Limitations and Issues

Index	Case ID	Issue Description
NA		

# 3 Firmware

## 3.1 Version Description

Firmware Version:	V3.0
Windows Driver Version	4.25.15.11
MAC Driver Version	4.25.40.00
Switch Port Tool Version	Tool-DataCardSetup 1.0.0.5
ISO version	1.0.1.44176_RC1_1.01.04.00

Device:	R206
VID Storage Mode:	12D1
PID Storage Mode	1527
Method to Switch Storage to Modem:	By driver
VID Modem/Network Adaptor Mode:	12D1
PID Modem/Network Adaptor Mode(Windows):	1594
PID Modem/Network Adaptor Mode(Mac):	1594

## 3.2 Firmware Specifications

Item	Specifications
SMS	<ul style="list-style-type: none"><li>• Writing/Sending/Receiving</li><li>• Sending/Receiving extra-long messages</li><li>• Group sending</li><li>• Storage: Up to 500 messages can be saved in the internal memory of the R206.</li><li>• New message prompt</li></ul>
Network connection setup	<ul style="list-style-type: none"><li>• APN management: edit.</li><li>• Set up network connection</li></ul>

Item	Specifications
WLAN setup	<ul style="list-style-type: none"> <li>• SSID broadcasting and hiding</li> <li>• Open system and shared key authentication</li> <li>• ASCII and HEX keys</li> <li>• 64/128-bit WEP encryption</li> <li>• 256-bit WPA-PSK and WPA2-PSK encryption</li> <li>• TKIP and AES encryption algorithm</li> <li>• TKIP and AES integrated encryption algorithm</li> <li>• Automatic and manual adjustment of ratios</li> <li>• STA management</li> <li>• Wi-Fi automatically close</li> <li>• WLAN MAC filter</li> </ul>
DHCP setup	<ul style="list-style-type: none"> <li>• DHCP server enabling and disabling</li> <li>• Address pool of the DHCP server setup</li> <li>• DHCP lease time setup</li> </ul>
Software installation	Automatic installation (PnP)
IPv6/IPv4	<ul style="list-style-type: none"> <li>• IPv6/IPv4 dual stack</li> </ul> <p>R206 can run both IPv4 and IPv6 protocol stack, forward the IPv4/IPv6 packets and communicate with IPv4 nodes and IPv6 nodes at the same time. After receiving the data frame Data link layer, Data link layer checks out the header of IP packet and identifies the version number field in the header to distinguish IPV4 or IPV6.</p> <ul style="list-style-type: none"> <li>• DHCPv6/v4 server</li> </ul> <p>DHCPv6 belongs to a stateful address configuration protocol. DHCPv6 server assigns a complete IPv6 address to the host, and will track the mapping of IP addresses and host. DHCPv6 has two service: stateful services and stateless services. Stateful service uses DHCPv6 to obtain address information, And stateless service refers to obtain other parameter information than address such as DNS.</p> <p>DHCPv6 has the interaction way of client/server, DHCPv6 Server can assign an address and parameter information for the client. Since DHCPv6 packet carried by UDP protocol, the server listens on port 547 and client uses the port 546. The client sends a request packet, the source address is set to local address, the destination address is set to pre-defined multicast address group FF02 :: 1:2 (DHCPv6 relay agent and server multicast address).</p> <ul style="list-style-type: none"> <li>• DNSv6/v4 server and client</li> </ul> <p>Display IPv6/v4 WAN address</p>
Other	<p>Network connection settings:</p> <ul style="list-style-type: none"> <li>• Automatic network selection and registration</li> <li>• Manual network selection and registration</li> </ul>

Item	Specifications
	Network status display: signal, operator name, system mode, and so on.
	Selection of network connection types, for example: <ul style="list-style-type: none"> <li>• 3G Only</li> <li>• 2G Only</li> <li>• 3G Preferred</li> </ul>
	PIN management: activate/deactivate PIN, PIN lock, changing PIN, unblocking by using the PUK.
System requirement	<ul style="list-style-type: none"> <li>• Windows XP, Windows Vista, Windows 7</li> <li>• Mac OS X 10.5, 10.6 and 10.7</li> <li>• Your computer's hardware system should meet or exceed the recommended system requirements for the installed version of OS</li> </ul>

### 3.3 Improvement in the Previous Version

#### 3.3.1 Version: R206 FW V3.0

Index	Case ID	Issue Description
Firmware		21.143.09.00.11(V3.0)
1	16349	Net Lock - Unlock procedure - Message with 3rd party SIM

#### 3.3.2 Version: R206 FW V2.0

Index	Case ID	Issue Description
Firmware		21.143.05.00.11(V2.0)
1	16375	Exploratory - Issues with the battery symbol displayed on the device.
2	16363	Incoming Speech Call behaviour
3	16358	factory reset fails
4	16361	SIM Lock - currently not available for this device.

#### 3.3.3 Version: R206 FW V1.0

Index	Case ID	Issue Description
Firmware		21.143.03.00.11(V1.0)
1	NA	IMEI-SV modified to 03



### 3.4 Known Limitations and Issues

Index	Case ID	Issue Description
1		

## 4 WebUI

### 4.1 Version Description

WebUI Version: 2.008. 5513

### 4.2 WebUI Specifications

Item	Specifications
Connection	1)Support Connect/Disconnect 2)Support Connection Setting
SIM Pin	1)Enable Pin 2)Disable Pin 3)Enter Pin
PUK	Support unlock PUK code
Network	1)Select Network Type; 2)Searching network; 3)Select network;
USSD	Support USSD command
SMS	1)Support send/receive SMS; 2)Support inbox/sent-box/draft-box; 3)Support SMS setting for Message Center Number and SMS Preview; 4) Support "SendUSSDAndGetResponse()" function;
Wifi	1)Wifi basic setting 2)Wifi security setting 3)Mac Setting
Router	1)Router Settings 2)DHCP Settings 3)NAT Settings 4)DMZ Settings 5)Advance

Device Control	1)Restart Device 2)Restore Default Settings
Diagnostics	1) Device Information: Items: Product name / Software Version / Web UI Version / Hardware Version / Serial Number / Serial no. of SIM (ICCID) / SIM Number (MSISDN) / Serial no. of device (IMEI) / IMSI / SIM Status / Time since startup 2)Mobile Broadband Connection Status: Items: Mobile Broadband Connection Status / Uptime of current Internet connection / Data rate / Total volume / Total time / IP address / DNS Server 3)Device Configuration: Items: DHCP / DMZ 4)Wifi Interface: Items: Wi-Fi Status / Network name (SSID) / Mode / Channel / Security type 5)Currently Attached Devices: Items: IP Address / Hostname / MAC address / Time (hh:mm:ss)
Language	Support change language
Login	1)Login 2)Logout
Panel	1)Network: Items: Mobile Number / Signal / Status / Network / Time connected / Total Volume / Up / Down 2)Battery Status: Items: Status / battery level / battery left time 3)Wifi Status: Items: Enabled / SSID / Security 4)Connected Devices Items: Device Name

### 4.3 Improvement in the Previous Version

#### 4.3.1 Version: R206 FW V3.0

Module	Description
Web UI version	2.008.5513
WebUI	1.based on WebUI v2.008.5513 2.set firmware version as v3.0 3. Modify Mantis 34741: [R206] [xmlreporting] R206 need productid

### 4.3.2 Version: R206 FW V2.0

Module	Description
<b>Web UI version</b>	<b>2.008.5513</b>
WebUI	1.based on WebUI v2.008.5513 2.set firmware version as v2.0 3. Modify Mantis 34163: [R206] Mobile Wi-Fi not support SD-card page on WEB UI 4. Modify Mantis 34164: [R206] Mobile Wi-Fi not support LCD, so please hide or cancel the setting item on the page of "Wi-Fi Settings". 5. Modify Mantis 34398: [R206V1.0][ WEBUI 2.005.5325] Change SSID name and choose cancel,the colour of Save icon changes to white. 6. Modify Mantis 34443: [R206 v2.007] The long SMS message can not automatically wrap on exploer such as FireFox,Chrome,Safari 7. Modify Mantis 34453: [R206 v2.005] QC:16376 No counter shows the number of left characters on the SMS write page with smart phone.
Profile	1.support "ProfileMatchingFields_v43"
Network	NA
SMS	NA
SDK	NA

### 4.3.3 Version: R206 FW V1.0

Module	Description
<b>Web UI version</b>	<b>2.005.5325</b>
WebUI	1.set firmware version as V1.0
Profile	NA
Network	NA
SMS	NA
SDK	NA

## 4.4 Known Limitations and Issues

Index	Case ID	Issue Description
<b>Web UI version</b>		<b>2.005.5325</b>
1	34777	[R206 V2.008] A comma after "has been unplugged" and a full stop at the end of the line are missing.

2	34778	[R206 V2.008] The SMS text area should not get disturbed in any scenario when 137 characters are entered.
3	16354	3G_Handset - Ciphering algorithm UEA2 is not supported on the device.
4	16362	Support of CPC
5	16364	DNS value filled - The DNS parameters are not the same configured in a command prompt window.
6	16367	USIM-ME: PIN1 Handling -> incorrect behaviour when the old PIN1 = new PIN1
7	16373	Encryption algorithm GEA/3 is not available.
8	16419	3G_Datacard_A306 - HSPA max IP Download performance
9	16421	A comma after ""has been unplugged"" and a full stop at the end of the line are missing.
10	16422	There is language issue in the 'Device cannot be detected' popup that is displayed when the laptop doesn't detect the device and user tries to open the URL '192.168.0.1'.
11	16423	""Home network"" panel is shown sometimes in the right panel, but sometimes during random testing it disappears.
12	16424	The 'Backup' and 'Restore' cycle doesn't restore the 'Message Preview' settings and the SMSC number.

## 5 Known Limitations and Issues from Penrillian

Index	Case ID	Issue Description

## 6 Known Limitations and Issues from VDF

Index	Case ID	Issue Description
1	16354	3G_Handset - Ciphering algorithm UEA2 is not supported on the device.
2	16362	Support of CPC
3	16364	DNS value filled - The DNS parameters are not the same configured in a command prompt window.
4	16367	USIM-ME: PIN1 Handling -> incorrect behaviour when the old PIN1 = new PIN1
5	16373	Encryption algorithm GEA/3 is not available.