**HDRM200 4G/5G industrial router**

(**V1.01**)

HDRM200 industrial cellular VPN router enables wireless data connectivity over public and private 3G/4G LTE/5G cellular networks at 3G/4G/5G high speed bandwidth. Support 4G LTE/5G global frequency band. Supports 4G LTE CAT 6, CAT 12 and 5G internet access. The maximum downlink bandwidth of 4G LTE is 300Mbps~600Mbps, and the maximum uplink bandwidth is 50Mbps~150Mbps. Or support 5G NSA. Up to 2.5Gbps (DL)/650Mbps (UL), 5G SA. Maximum 2.1Gbps (DL)/900Mbps (UL) access bandwidth service.

 HDRM200 router has dual SIM backup, 5 Gigabit Ethernet ports, 1\*RS232 and 1\*RS485 interfaces are provided to support Serial to IP communication. GPS is optional based on LTE module capability. Supports +6V to +36VDC wide range power input, designed with reverse-voltage protection mechanism. It is an advanced choice for wireless M2M applications with reliable features for data transmission. Support for WIFI 2.4GHz/5GHz dual-band function to meet the access and sharing needs of more than 60 users' WIFI hotspots. Supports GPS positioning function, which is convenient for users to monitor operation and maintenance. Providing stable and high-speed wireless broadband access for home and business users.

**TYPICAL APPLICATION**







Kiosk



Industrial Automation



Transportation





ATM





Video

Surveillance



Meter





**HDRM200**

**Router**







**Wi-Fi Client**



**3G/4G/5G**



**WAN/LAN**





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**Management**

**Platform**



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**Product features**

◆ Supports 3G/4G LTE/5G global frequency bands, Wireless Mobile Broadband 3G / 4G LTE /5G Connection.

◆ System crashes and automatically recovers. The system automatically maintains the data link and is permanently online.

◆ Supports 1\*WAN/4\*LAN Gigabit ethernet ports,1\*RS232,1\*RS485 port,1\*USB2.0.

◆ Supports Multiple VPN tunnels for data encryption .

**Designed for industrial application scenarios**

◆ Power Input Range. DC +6V/2.5A to +36V/0.5A

◆ Industrial design for harsh environment.

◆ Metal casing and din-rail installation.

**Easy to use and easy maintenance**

◆ User friendly web interface for user interaction.

◆ Supports Central Management Platform.

◆ Supports local web UI and remote FOTA update firmware.

**Operating system**

◆ Built-in OpenWRT 18.06 operating system. Supports user secondary application development.

**SPECIFICATIONS**

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| **Cellular feature – 4G LTE CAT 6，CAT 12 Version** |
| **3G/4G** **data connectivity** | It provides data connectivity on LTE-FDD, LTE-TDD, DC-HSDPA, HSPA+, HSDPA, HSUPA and WCDMA networks. |
| **3G/4G** **Frequency bands** | **Version E.** LTE-FDD: B1/B3/B5/B7/B8/B20/B28/B32(**Optional**)  LTE-TDD: B38/B40/B41/B42(**Optional**) /B43(**Optional**) WCDMA: B1/B3/B5/B8**Verison A.**  LTE-FDD: B2/B4/B5/B7/B12/B13/B14B25/B26/B29/B30/B66/B71  LTE-TDD: B41/B48**Version LA.**  LTE-FDD: B2/B4/B5/B7/B8/B28/B66  LTE-TDD: B42(**Optional**) /B43(**Optional**)WCDMA: B2/B4/B5/B8**Remarks. More Bands Demands please contact with us.** |
| **3G/4G Data rates** | **4G LTE--CAT 6** LTE-FDD Max 300Mbps(DL) , Max 50Mbps (UL)  LTE-TDD Max 226Mbps (DL) , Max 28Mbps (UL). **4G LTE-CAT 12**LTE-FDD. Max 600Mbps (DL)，Max 150Mbps (UL) . LTE-TDD. Max 430Mbps (DL)，Max 90Mbps (UL).**HSPA+.**DL 42Mbps, UL 11.2Mbps.**WCDMA.**DL 384Kbps, UL 384Kbps |
| **3G/4G****Transmitting Power** | ◆ Class 3 (23 dBm±2 dB) for LTE-TDD bands◆ Class 3 (23 dBm±2 dB) for LTE-FDD bands◆ Class 3 (24 dBm+ 1/-3 dB) for WCDMA bands |
| **LTE features** | **CAT 6 version.**◆ Supports 3GPP Rel-12 CAT 6 FDD and TDD◆ Supports uplink QPSK and 16 QAM modulation.◆ Supports downlink QPSK , 16 QAM and 64 QAM.◆ Supports 1.4MHz to 40MHz (2 CA) RF bandwidth.**CAT 12 version.**◆ Supports 3GPP Rel-12 CAT 12 FDD and TDD.◆ Supports uplink QPSK ,16 QAM and 64 QAM modulation.◆ Supports downlink QPSK , 16 QAM ,64 QAM and 256 QAM.◆ Supports 1.4MHz to 60MHz (3 CA) RF bandwidth. |
| **UMTS features** | ◆ Supports 3GPP Rel-9 DC-HSDPA,DC-HSUPA,HSPA+,HSDPA,HSUPA and WACDMA◆ Supports QPSK ,16 QAM and 64 QAM modulation. |
| **Antennas** | ◆ 2\* 4G antennas(2\*2 MIMO) or 4\*4G antennas(4\*4 MIMO). 1\*GPS antenna.(**Optional**)◆ 2 or 4 \* SMA female connectors with 50 Ω impedance. |
| **Cellular feature– 5G version** |
| **3G/4G/5G****data connectivity** | It provides data connectivity on 5G NR SA and NSA, LTE-FDD, LTE-TDD, DC-HSDPA, HSPA+, HSDPA,HSUPA and WCDMA networks. |
| **3G/4G/5G****Frequency bands** | **5G NR SA.** n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48\*/n66/n71/n77/n78/n79**5G NR NSA.** n38/n41/n77/n78/n79**LTE-FDD.** B1/B2/B3/B4/B5/B7/B8/B12/B13/B14/B17/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71**LTE-TDD.** B34/B38/B39/B40/B41/B42/B43/B48**LAA** B46**WCDMA.** B1/B2/B3/B4/B5/B8/B19**Remarks. More frequency bands details or requirements please contact with us.**  |
| **3G/4G/5G** **Data rates** | ◆ **5G NSA.** Max 2.5Gbps (DL)/650Mbps (UL)◆ **5G SA.** Max 2.1Gbps (DL)/900Mbps (UL)◆ **LTE.** Max 1.0Gbps (DL)/200Mbps (UL)◆ **DC-HSDPA.** Max 42Mbps (DL)◆ **HSUPA.** Max 5.76Mbps (UL)◆ **WCDMA** Max 384Kbps (DL)/384Kbps (UL) |
| **3G/4G/5G****Transmitting Power** | ◆ Class 3 (24dBm+1/-3dB) for WCDMA bands.◆ Class 3 (23dBm±2dB) for LTE-FDD bands.◆ Class 3 (23dBm±2dB) for LTE-TDD bands.◆ Class 3 (23dBm±2dB) for 5G NR bands.◆ Class 2 (26dBm±2dB) for LTE B38/B40/B41/B42 bands.◆ Class 2 (26dBm±2dB) for 5G NR n41/n77/n78/n79 bands . |
| **5G NR features** | ◆ 3GPP Rel-15◆ Modulation:- Uplink 256QAM- Downlink 256QAM◆ Downlink 4 \* 4 MIMO on n1/n2/n3/n7/25/n38/n40/n41/n48/n66/n77/n78/n79◆ Uplink 2 \* 2 MIMO on n41/n77/n78/n79◆ SCS 15 kHz and 30 kHz◆ 5G NR refarmed band bandwidth ≤ 20 MHz◆ 5G NR n41/n77/n78/n79 bandwidth ≤ 100 MHz◆ SA and NSA operation modes◆ NSA on n41/n77/n78/n79◆ SA on all the 5G bands◆ Option 3x, 3a, and Option 2 |
| **LTE features** | ◆ Supports up to CA Cat 20 FDD and TDD◆ Supports uplink QPSK, 16-QAM and 64-QAM and 256-QAM modulation◆ Supports downlink QPSK, 16-QAM and 64-QAM and 256-QAM modulation◆ Supports 1.4MHz to 20MHz (5×CA) RF bandwidth◆ Supports 4 \* 4 MIMO in DL direction |
| **UMTS features** | ◆ Supports 3GPP R8 DC-HSDPA, HSPA+, HSDPA standard.◆ Supports QPSK, 16-QAM and 64-QAM modulation. |
| **Antennas** | ◆ 4 \* SMA female with 50 Ω impedance.◆ 4 \* 5G antenna(4\*4 MIMO). 1\*GPS antenna. (**Optional**)◆ 1 \* SMA female with 50 ohms impedance.◆ ANT2\_GNSSL1,Antenna 2 interface.- 5G NR ( n77/n78/n79 MIMO2, n41 DRX ).- LTE MHB MIMO2- B42/B43/B48 MIMO2- LAA DRX- GNSS L1- 1400–6000 MHz |
| **GNSS/GPS (Optional)** |
| **GNSS features** | ◆ Gen9HT of Qualcomm◆ Protocol: NMEA 0183, Data Update Rate: 1Hz.◆ GPS,GLONASS,BeiDou(COMPASS)/Galileo. ◆ GPS/Galileo/QZSS.1575.42 ±1.023 (L1) MHz◆ Galileo.1575.42 ±2.046 (E1) MHz◆ QZSS. 1575.42 (L1) MHz◆ GLONASS. 1597.5–1605.8 MHz◆ BeiDou. 1561.098 ±2.046MHz |
| **SIM card feature** |
| **SIM card** | Supports 2 \* SIM slots, 1.8V / 3V . Or 1\* eSIM card. ( **Optional** ) |
| **SIM Failover** | Auto-switch cases. data limited, no network, network denied, data connection fail.  |
| **Hardware feature** |
| **CPU** | MTK7621A, MIPS1004KC, 880Mbps,Dual-core. |
| **MEMORY** | FLASH 16MByte, DDR3 64MByte |
| **Hardware interface** | 1\*WAN/4\* LAN gigabit Ethernet port. 1\*RS232( 3 Pins ) /1\*RS485 or 2\*RS485 port,1\*USB2.0 port. |
| **Watchdog** | Built-in watchdog feature. |
| **Key button** | Reset |
| **Protection level** | Ethernet port,RS232/RS485 port , Contact electric shock, +/-4KV, air discharge: +/-8KV. |
| **LED status indicator** | PWR ,SYS, Net, WAN, LAN,WLAN |
| **RS232/RS485 Baud Rate** | 1200bps to 921600bps |
| **Standard Power** | Power supply input. DC +12V/1.5A |
| **Power Supply** | Power supply input: DC +6/2.5A~36V/0.5A |
| **Peak current** | Max current. 2.5A @12V |
| **Working current** | Max 360 mA,4.32W @12 V |
| **Power Consumption** | **Idle.** Max 80mA,0.96W @12 V **Data link.**  Max 360 mA,4.32W @12 V**Peak.** Max 470mA ,5.64W @12V |
| **Temperature** | Operating Temperature. -20 ºC ~+70ºC, Storage Temperature. -30 ºC ~+75ºC |
| **Environment humidty** | 5%~95% ,no condensation. |
| **Ingress Protection** | IP30 |
| **Housing** | black iron case |
| **Dimensions** | 155mm \* 105mm \* 25mm |
| **Installations** | Desktop or Din-rail mounted. |
| **Weight** | 476g |
| **Wi-Fi** |
| **WLAN** | ◆ IEEE 802.11b/g/n/ac.◆ Supports 20MHz,40MHz,80MHz bandwidth in 5GHz band, and 20MHz,40MHz bandwidth in 2.4GHz band. |
| **Wireless Mode**  | Access Point (AP), Client  |
| **WLAN Speed**  | Max bandwidth 300Mbps @2.4GHz, 867Mbps@ 5GHz. |
| **Wireless Security**  | Supports WPA, WPA2,WPAI, WEP, TKIP encryption. |
| **Frequency Bands**  | 2.4 GHz/5GHz |
| **WIFI transmit power** | **2.4GHz Tx power.** TX CCK, 11Mbps @ -20dBmHT40,MCS 8 @ -20dBmHT40,MCS 15 @ -17dBm**5GHz Tx power.**6Mbps OFDM @ -19.5dBm54Mbps OFDM @ -18dBmHT20,MCS 0 @ -18.5dBmHT20,MCS 7 @ -17dBmHT40,MCS 0 @ -18.5dBmHT40,MCS 7 @ -17dBmVHT80,MCS 0 @ -18.5dBmVHT80,MCS 9 @ -16dBm |
| **WIFI   Rx Sensitivity** | **2.4GHz Rx sensitivity.** 1Mbps CCK @ -98dBm2Mbps CCK @ -94dBm5.5Mbps CCK @ -92dBm11Mbps CCK @ -89dBm**5GHz Rx sensitivity.**6Mbps OFDM @ -93.5dBm9Mbps OFDM @ -91.5dBm12Mbps OFDM @ -91dBm18Mbps OFDM @ -88.5dBm24Mbps OFDM @ -84.5dBm36Mbps OFDM @ -82dBm48Mbps OFDM @ -77dBm54Mbps OFDM @ -76dBm |
| **Antennas** | 2\*2 MIMO,2 \* SMA female antenna connectors with 50 Ω impedance. |
| **WIFI hotspot sharing** | Supports more than 60 users to share WIFI internent access. |
|   **Software feature** |
| **Parameter settings** | Supports automatic detection of MNC and MCC parameters of global network operators. Built-in global operator APN, user name, password and other network parameters. At the same time, manual setting of network parameters is supported. |
| **Dial method** | After the device is powered on, the system automatically dials up to connect to the network. |
| **Protocol** | Supports PPTP,L2TP,IPSEC VPN,TCP,UDP,DHCP,HTTP,DDNS,TR-069,HTTPS,SSH,SNMP etc protocol. |
| **Routing** | Supports static routing, multiple routing tables. |
| **Bridge** | Supports 4G/5G bridge mode feature. |
| **Multiple APN** | Supports multiple APN access network. |
| **System Assurance** | Supports system automatic detection mechanism, automatic recovery of system abnormality or crash. |
| **Data Link Assurance** | Built-in data link maintenance and self-recovery mechanism. |
| **Firewall**  | Supports flexible access control of TCP, UDP, ICMP packets. Supports port Mapping, NAT etc feature. |
| **DDNS**  | Supported some service providers, others can be configured manually. |
| **Firmware update** | Supports local WebUI and remote OTA update firmware. |
| **VLAN** | Supports VLAN feature. |
| **Embedded system** | **OpenWRT 18.06** |
| **Application development** |  Supports secondary development of application functions based on our device motherboard software. |
| **VPN**  |  |
| **VPN Feature** | Supports OpenVPN, IPSEC VPN,PPTP,L2TP etc. |
| **MONITORING & MANAGEMENT** |
| **Web GUI**  | HTTP, Firmware Upgrade  |
| **Command Line Interface** | SSHv2 ,Telnet |
| **Management platform**  | Remote management platform |



**Dimensions.**

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