

# H685v Series Cellular Router Datasheet



## >>| Product Introduction

The H685v series Cellular Router designed for establish a cellular broad band Internet connection. The H685v series Cellular Router enables users to quickly create a secure wireless network and provide access to the Internet using a cellular network. By connect to cellular network; an Internet connection can be accessed and shared virtually anywhere within a wireless broadband network.

E-Lins' mobile data products are widely used in more than 50 countries and regions, and more than twenty industrial fields, such as power control, water schedule, traffic, oil field, weather forecast, environmental protection, street lamp control, post, bank and many other areas.

## >>| Hot Spot

Broadband M2M communications

SIM failover/standby APN

3G failover for fixed line broadband connections

Rapid service deployment applications

WiFi optional

GPS optional

I/O port terminal blocks for DTU feature (RS232/RS485 to Cellular Gateway)

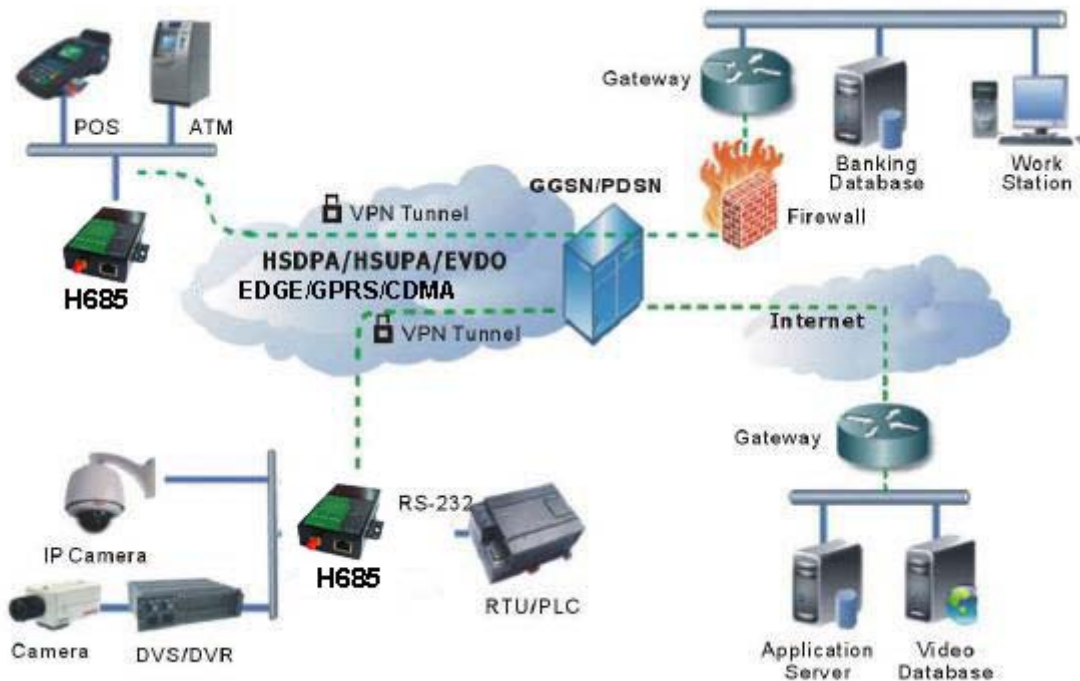
## >>| Brief

### **Broadband M2M Communications**

The product line provides a cost-effective broadband Machine-to-Machine (M2M) solution and supports the following radio access technologies: HSDPA, HSUPA UMTS, EDGE, GPRS and GSM.

The compact and rugged structure makes it a suitable product for deployments in M2M applications such as CCTV, ATM, telemetry, SCADA, retail (POS), digital signage, and intelligent traffic systems.

## >>| Typical Topology



## >>| Industrial Application

- Remote Data Monitor and Control
- CCTV, security surveillance
- Water, gas and oil flow metering and schedule
- AMR (automatic meter reading)
- Power station monitoring and control
- Remote POS (point of sale) terminals, ATM,
- Traffic signals monitor and control, Traffic info guidance
- Oil field, weather forecast, environmental protection, street lamp monitoring and control
- Early Warning of Mountain Torrent
- Fleet management
- Power distribution network supervision
- Central heating system supervision
- Weather station data transmission
- Hydrologic data acquisition
- Vending machine
- Telemetry, SCADA
- Vehicle logistics and diagnostics controlling
- Parking meter and Taxi Monitor
- Telecom equipment supervision (Mobile base station, microwave or optical relay station)

## >>| Basic Features

- Supports multi-band GSM, GPRS, EDGE, HSDPA, HSUPA network, and CDMA1x, EVDO networks
- SMA Standard antenna
- Optimized EMC design
- Always on line: On-line detection and automatic redial and keep-alive while the line dropped
- Wide range power input
- Smart power management
- Reliable, flexible, easy to use and management
- RS-232/485 interface transparent communication (DTU modem function) optional
- 1 LAN RJ45 ports for Ethernet interface
- WiFi 802.11b/g/n optional

## >>| Enhanced Features

- Real-time clock
- VPN (PPTP, L2TP, IPSec) optional – Please confirm what VPN you require before order.
- Built-in DHCP server
- Supports NAT and DMZ host
- Supports DNS proxy and Dynamic DNS (DDNS)
- Supports Static routing table
- Supports packet filter
- Built-in multi-routing backup (Ethernet and dialup network)
- System and network monitoring
- WAN interface traffic statistics
- Support multiple protocol conversion
- Transparent data transmission (DTU feature) optional
- WEB/Telnet/console management interface
- Support radio network data envelope counting
- Self-diagnostic and alarm output
- Local/remote profiles backup and retrieve
- Local/remote firmware upgrade via web
- Remote web management
- Urgent event alarm via SMS optional
- Firewall, packet filtering
- Support data center communication
- Support NTP
- Support LED status indication
- Support VLAN
- Support LCP, ICMP check

## >>| Enhanced Features

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- Multi-level link detection and redial, keep the traffic channel alive
  1. PPP detection
  2. Local and remote ICMP detection
  3. Heart-beat detection
  4. WAN interface traffic detection
  
- On/off line control
  1. Auto or manual dial
  2. Timing on/off line control
  
- Flexible data communication
  1. Supports layer 2 and 3 data communication
  2. Supports RS-232 transparent communication optional  
UDP/IP or TCP/IP Client/Server
  3. Supports both RS-232 and Ethernet communication
  
- Configuration and remote management
  1. Multi-language web based configuration interface (local or remote)
  2. Supports Telnet local or remote operation
  3. CLI operation
  
- Virtual online technology (VKL, only CDMA)
  1. Release wireless network channel while there is no user's data traffic
  2. Keep the router online logically when the wireless channel released
  3. The router will immediately restore to the connected status without any redial or authentication if there is any data transmitted

## >>| Specification

Wireless	
<b>Compatible Mobile Networks</b>	<ul style="list-style-type: none"> <li>• UMTS WCDMA (HSUPA/HSDPA)</li> <li>• GSM EDGE</li> <li>• GSM GPRS</li> <li>• CDMA1x</li> <li>• CDMA EVDO Rev 0 and Rev A</li> </ul>
<b>Cellular Frequency</b>	<ul style="list-style-type: none"> <li>• UMTS/HSPA/HSUPA (WCDMA/FDD) 850/1900/2100 MHz or 850/900/1900/2100Mhz</li> <li>• Quad-band EGSM 850/900/1800/1900</li> <li>• CDMA1x/EVDO: 800/1900Mhz or 450Mhz optional</li> </ul>
<b>Bandwidth</b>	<ul style="list-style-type: none"> <li>• HSUPA</li> </ul>

	Downlink 14.1 Mbps Uplink 5.7Mbps <ul style="list-style-type: none"> <li>• HSDPA                      Downlink 7.2 Mbps                      Uplink 384k bps</li> <li>• WCDMA/UMTS                      Downlink/Uplink 384 kbps</li> <li>• EDGE                      Downlink 236,8 kbps                      Uplink 118 kbps</li> <li>• GPRS                      Downlink 85.6 kbps                      Uplink 42.8 kbps</li> <li>• CDMA1x                      Downlink/Uplink 153.6kbps</li> <li>• CDMA EVDO                      Rev A: 3.1Mbps downlink, 2.4Mbps uplink                      Rev O: 2.4Mbps downlink, 153.6kbps uplink</li> </ul>
<b>Wi-Fi</b>	<ul style="list-style-type: none"> <li>• Optional</li> </ul>
<b>Protocol</b>	
<b>Protocol support</b>	TCP, UDP, SMTP, POP, ICMP, FTP, PPP, PPPoE, DHCP, DDNS, DNS, SNMP, NAT, DMZ, Qos, ALG
<b>DTU (Optional)</b>	With DTU feature
<b>VPN</b>	VPN, IPSec, PPTP (For H685vv series only)
<b>Security</b>	
<b>Security</b>	64/128-bit WEP (Wired Equivalent Privacy) WPA & WPA2 (Wi-Fi Protected Access)
<b>Advanced Firewall Features</b>	Network Address Translation (NAT) Stateful Packet Inspection (SPI) VPN Pass-through
<b>Media Access Control</b>	CSMA/CA with ACK
<b>Certifications</b>	REDIUS Client
<b>Interface</b>	
<b>LAN</b>	1X 10/100M LAN port (RJ45 interface)

<b>Antenna</b>	1X antenna for Wi-Fi (SMA interface) for WiFi version 1X antenna for cellular (50Ω SMA female interface)
<b>USB</b>	1X USB 2.0 Host for maintenance 1X USB 2.0 Host for other device
<b>Led</b>	<ul style="list-style-type: none"> <li>• Power</li> <li>• Run</li> <li>• Cell</li> <li>• Link</li> <li>• LAN (10/100M)</li> <li>• VPN</li> <li>• Act</li> </ul>
<b>Serial port / DB9 (optional)</b>	rate: 300~115200bps
<b>Configuration interface</b>	Web/Telnet or RS232
<b>UIM/SIM Card Slot</b>	Support 1.8V/3V UIM/SIM cards
<b>Power</b>	
<b>Power supply</b>	DC5V-25V , typical DC12V2A
<b>Power consumption</b>	<ul style="list-style-type: none"> <li>• Idle: 20mA@5VDC</li> <li>• Max: 300mA@5VDC</li> <li>• Average: 130mA@5VDC</li> </ul>
<b>Software</b>	
<b>Device Management</b>	<ul style="list-style-type: none"> <li>• WEB interface (Internet Explorer v6 or Later; Mozilla Firefox v1.5 or Later, or other Java-enabled Browsers)</li> <li>• SNMP</li> <li>• SYSLOG</li> </ul>
<b>Minimum System Requirements</b>	Mobile Internet Access Subscription and Internet PC Adapter Computer with: <ul style="list-style-type: none"> <li>• Windows 7, Vista , Windows XP SP2, Windows 2000 SP4, or Mac OS® X (v10.4/v10.3), Linux</li> <li>• Internet Explorer 6 or Mozilla Firefox</li> <li>• CD-ROM Drive</li> <li>• Network Interface Card</li> </ul>
<b>Physical</b>	
<b>Operating</b>	<ul style="list-style-type: none"> <li>• Storage: 72°F to 153°F (-40°C to 90°C)</li> </ul>

<b>Temperature</b>	<ul style="list-style-type: none"> <li>Working: 36°F to 126°F (-30°C to 80°C)</li> </ul>	
<b>Humidity</b>	95% Maximum (Non-condensing)	
<b>Dimensions</b>	Item (L x B x H): 72mm x 55mm x 23mm Packaging (L x B x H): 260mm x 190mm x 65mm (10.3" x 7.5" x 2.6")	
<b>Weight</b>	Item: 400g Packaging: 1.6 lbs	
<b>Others</b>		
<b>Warranty</b>	1 Year	
<b>Package Contents</b>	<ul style="list-style-type: none"> <li>The H685v Series wireless Router</li> <li>CAT5 Ethernet Cable</li> <li>DC12V2A Power Adapter</li> <li>Antenna</li> <li>CD-ROM with Product Documentation</li> </ul>	
<b>Model</b>	<b>Marks</b>	<b>Optional</b>
H685vg	GPRS Router, work under GPRS/GSM networks	VPN, RS232 for DTU
H685ve	EDGE Router, work under EDGE/GPRS/GSM networks	VPN, RS232 for DTU
H685vd	HSDPA Router, work under HSDPA/EDGE/GPRS/GSM networks	VPN, RS232 for DTU, WiFi, GPS
H685vu	HSUPA Router, work under HSUPA/HSDPA EDGE/GPRS/GSM networks	VPN, RS232 for DTU, WiFi, GPS
H685vc	CDMA Router, work under CDMA1x networks	VPN, RS232 for DTU
H685vev	EVDO Router, work under EVDO/CDMA1x networks	VPN, RS232 for DTU, WiFi, GPS

