

# H700 Series Cellular Router Datasheet



## >>| Product Introduction

The H700 series Cellular Router is designed for establish a 2G/3G/4G cellular wireless network and share a cellular broadband internet connection. The H700 series Cellular Router enables users to quickly create a secure Wi-Fi (802.11 b/g/n) network and provide access to the internet using a cellular network. By connect to cellular broadband 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

H700 series has several types.

A. Single module mode, two types:

A1) work with one sim card.

A2) work with two sim card. Two sim card backup each other (cold backup).

B. Dual module (working with dual sim), three types:

B1) two sim work together to backup (hot backup);

B2) two sim work together to bind the bandwidth;

Dual SIM work together to bind the two network to increase the speed (**requires a special VPN server to work together. Please tell our sales if you need this feature**);

Two sims can be any type from 2G/3G/4G at

GPRS/EDGE/HSDPA/HSUPA/HSPA/HSPA+/LTE/CDMA1x/CDMA2000 EVDO. (**Please confirm the type before order**)

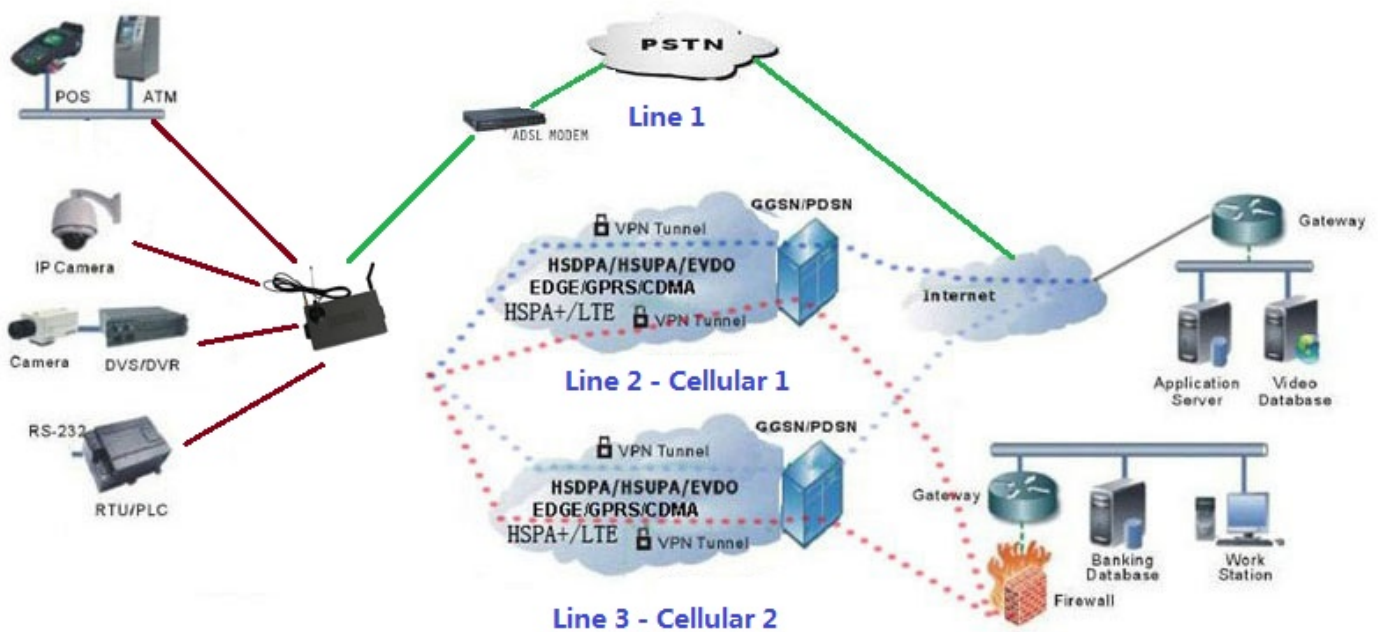
Option feature:

1. WiFi
2. GPS
3. Serial to cellular gateway
4. video server (connect with camera)

5. WAN RJ45 port
6. Internal battery

Redundancy backup: cellular1+ cellular 2+ WAN RJ45

## >>| 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, HSPA, HSPA+ network, CDMA1x, EVDO, and 4G LTE 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
- 4 LAN RJ45 ports for Ethernet interface, 1 WAN RJ45 port
- WiFi supported optional

## >>| Enhanced Features

- VPN (PPTP, IPSec) – Please confirm what VPN you require before order.
- USB2.0 Host supported
- Real-time clock
- Built-in DHCP server
- Supports NAT and DMZ host
- Supports 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)
- 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
- Remote web management
- Urgent event alarm via SMS optional

- Firewall, packet filtering
- Support data center communication

## >>| Enhanced Features

- 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/HSPA/HSPA+)</li> <li>GSM EDGE/GPRS</li> <li>CDMA1x</li> <li>CDMA EVDO Rev 0 and Rev A</li> <li>4G LTE</li> <li>TD-SCDMA</li> </ul>

<p><b>Cellular Frequency</b></p>	<ul style="list-style-type: none"> <li>• UMTS/HSPA/HSUPA/HSPA/HSPA+ (WCDMA/FDD) 850/1900/2100 MHz or 850/900/1900/2100Mhz optional</li> <li>• Quad-band EGSM 850/900/1800/1900</li> <li>• CDMA1x/EVDO: 800/1900Mhz or 450Mhz optional</li> <li>• 4G LTE</li> <li>• 700(B17)/AWS or 800/900/1800/2100/2600MHz or 700(B13)MHz</li> </ul>
<p><b>Bandwidth</b></p>	<ul style="list-style-type: none"> <li>• HSPA+ Downlink 21~84Mbps Uplink 5.7~42Mbps</li> <li>• HSUPA Downlink 14.1~28.2 Mbps Uplink 5.7~11.4Mbps</li> <li>• HSDPA Downlink 7.2~14.4 Mbps Uplink 384~768k bps</li> <li>• WCDMA/UMTS Downlink/Uplink 384~768kbps</li> <li>• EDGE Downlink 236.8~473.6 kbps Uplink 118~236 kbps</li> <li>• GPRS Downlink 85.6~171.2 kbps Uplink 42.8~85.6 kbps</li> <li>• CDMA1x Downlink/Uplink 153.6~307.2kbps</li> <li>• CDMA EVDO Rev A: 3.1~6.2Mbps downlink, 2.4~4.8Mbps uplink Rev O: 2.4~4.8Mbps downlink, 153.6~307.2kbps uplink</li> <li>• 4G LTE: Downlink: 100~200Mbps Uplink: 50~100Mbps</li> </ul>
<p><b>Wi-Fi</b></p>	<ul style="list-style-type: none"> <li>• 802.11b/g/n; Frequency from 2.4GHz to 2.483GHz, Access Points, Routers and Gateway Server Applications</li> </ul>
<p><b>Protocol</b></p>	
<p><b>Protocol support</b></p>	<p>TCP, UDP, SMTP, POP, ICMP, FTP, PPP, DHCP, DDNS,</p>

	DNS,, NAT, DMZ, Qos, ALG,VLAN
<b>USB Host</b>	USB Host 2.0
<b>DTU (Optional)</b>	With DTU feature (Serial to cellular gateway feature), RS232 or RS485 for option
<b>VPN</b>	PPTP, IPsec
<b>GPS</b>	Optional
<b>Internal Battery</b>	Optional
<b>Security</b>	
<b>Security</b>	<p>support 64/128 bits WEP, 802.1x, WPA, and WPA2</p> <p>support WDS</p> <p>support WPA1/2 – PSK</p> <p>support WPA1/2 – 802.1x</p> <p>support EAP – TLS, TTLS, LEAP, PEAP</p> <p>support access with user name &amp; password.</p> <p>support access control base WAN/LAN interface</p> <p>support access control base source IP address</p> <p>defense DOS attack, support SYN flooding, IP surfing, ping of Death, fragile, teardrop, land etc.</p> <p>support PAP &amp; CHAP</p> <p>support IP filtering</p>
<b>Advanced Firewall Features</b>	<p>Network Address Translation (NAT)</p> <p>Stateful Packet Inspection (SPI)</p> <p>VPN Pass-through</p>
<b>Media Access Control</b>	CSMA/CA with ACK
<b>Certifications</b>	RADIUS Client
<b>Interface</b>	
<b>LAN</b>	<p>4X 10/100M LAN port (RJ45 interface)</p> <p>1X 10/100M WAN port (RJ45 interface)</p>
<b>Antenna</b>	<p>4 X antenna (50Ω SMA female interface):</p> <p>Wi-Fi, 2 Cellular, GPS</p>
<b>Led</b>	<ul style="list-style-type: none"> <li>• Power</li> <li>• SYS</li> <li>• WAN</li> </ul>

	<ul style="list-style-type: none"> <li>LAN (10/100M) 1, 2, 3, 4</li> <li>WLAN</li> <li>3G</li> </ul>
<b>Button</b>	Reset
<b>Console</b>	1 console port (also can be used as M2M port)
<b>Serial port / DB9 optional</b>	rate: 300~115200bps
<b>Configuration interface</b>	Web/Telnet or RS-232
<b>UIM/SIM Card Slot</b>	Support 1.8V/3V UIM/SIM cards, two sim card slot
<b>Power</b>	
<b>Power supply</b>	DC5V-27V , typical DC12V1A, 12v CAR USE
<b>Power consumption</b>	<ul style="list-style-type: none"> <li>Idle: 30mA@12VDC</li> <li>Max: 400mA@12VDC</li> <li>Average:200mA@12VDC</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, Chrome, Opera, Safari or other Java-enabled Browsers)</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 Temperature</b>	<ul style="list-style-type: none"> <li>Storage: 72°F to 153°F (-40°C to 90°C)</li> <li>Working: 36°F to 126°F (-30°C to 80°C)</li> </ul>
<b>Humidity</b>	95% Maximum (Non-condensing)
<b>Dimensions</b>	180mm x 152mm x 31mm

<b>Weight</b>	530g (not including the antenna) 590g (including the antenna) 990g (including all accessories)	
<b>Others</b>		
<b>Warranty</b>	1 Year	
<b>Package Contents</b>	<ul style="list-style-type: none"> <li>• The H700 Series 3G wireless Router</li> <li>• CAT5 Ethernet Cable</li> <li>• DC12V1A Power Adapter</li> <li>• Antenna</li> <li>• CD-ROM with Product Documentation</li> </ul>	
<b>Model</b>	<b>Marks</b>	<b>Optional</b>
H700w	WCDMA type, one module dual sim, support HSPA/HSUPA/HSDPA/EDGE/GPRS/GSM	WiFi, GPS, DTU(RS232/RS485), Internal Battery; WAN RJ45: option
H700c	CDMA2000 type, one module dual sim, support CDMA2000 EVDO/CDMA1x	WiFi, GPS, DTU(RS232/RS485), Internal Battery; WAN RJ45: option
H700td	TD-SCDMA type, one module dual sim, support TD-SCDMA/EDGE/GPRS/GSM	WiFi, GPS, DTU(RS232/RS485), Internal Battery; WAN RJ45: option
H700t	4G LTE type, one module dual sim, network support (depends on module type)	WiFi, GPS, DTU(RS232/RS485), Internal Battery; WAN RJ45: option
H700ww	WCDMA+WCDMA type, dual module dual sim, support HSPA/HSUPA/HSDPA/EDGE/GPRS/GSM	WiFi, GPS, DTU(RS232/RS485), Internal Battery; WAN RJ45: option
H700cc	CDMA2000+CDMA2000 type, dual module dual sim, support CDMA2000 EVDO/CDMA1x	WiFi, GPS, DTU(RS232/RS485), Internal Battery; WAN RJ45: option
H700tdtd	TD-SCDMA+TD-SCDMA type, dual module dual sim, support TD-SCDMA/EDGE/GPRS/GSM	WiFi, GPS, DTU(RS232/RS485), Internal Battery; WAN RJ45: option
H700wc	WCDMA+CDMA2000 type, dual module dual sim, support HSPA/HSUPA/HSDPA/EDGE/GPRS/GSM, and CDMA2000 EVDO/CDMA1x	WiFi, GPS, DTU(RS232/RS485), Internal Battery; WAN RJ45: option
H700wtd	WCDMA+TD-SCDMA type, dual module dual sim, support HSPA/HSUPA/HSDPA/EDGE/GPRS/GSM, and TD-SCDMA	WiFi, GPS, DTU(RS232/RS485), Internal Battery; WAN RJ45: option
H700ctd	CDMA2000+ TD-SCDMA type, dual module dual sim, support CDMA2000 EVDO/CDMA1x, and	WiFi, GPS, DTU(RS232/RS485), Internal Battery; WAN RJ45: option

	TD-SCDMA/EDGE/GPRS/GSM	
H700tt	4G LTE type, dual module dual sim, network support (depends on module type)	WiFi, GPS, DTU(RS232/RS485), Internal Battery; WAN RJ45: option
H700tw	4G LTE + WCDMA type, dual module dual sim, network support (depends on module type)	WiFi, GPS, DTU(RS232/RS485), Internal Battery; WAN RJ45: option
H700tc	4G LTE + CDMA2000 type, dual module dual sim, network support (depends on module type)	WiFi, GPS, DTU(RS232/RS485), Internal Battery; WAN RJ45: option
H700ttd	4G LTE + TD-SCDMA type, dual module dual sim, network support (depends on module type)	WiFi, GPS, DTU(RS232/RS485), Internal Battery; WAN RJ45: option
<b>Notes: Please confirm the exact type before your order.</b>		