

H800 Cellular Router Datasheet



>>| Product Introduction

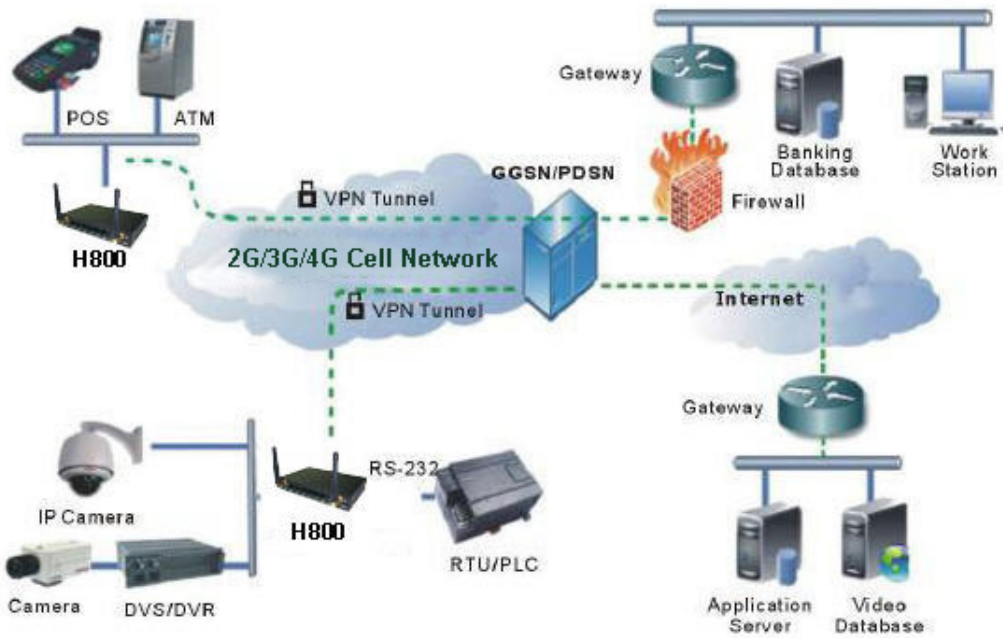
The EL-H800 series Cellular Router designed for establish a Wi-Fi wireless network and share a cellular broad band Internet connection. The EL-H800 series Cellular Router enables users to quickly create a secure Wi-Fi (802.11 b/g/n) network and provide access to the Internet using a cellular network. By connect to cellular mobile 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.

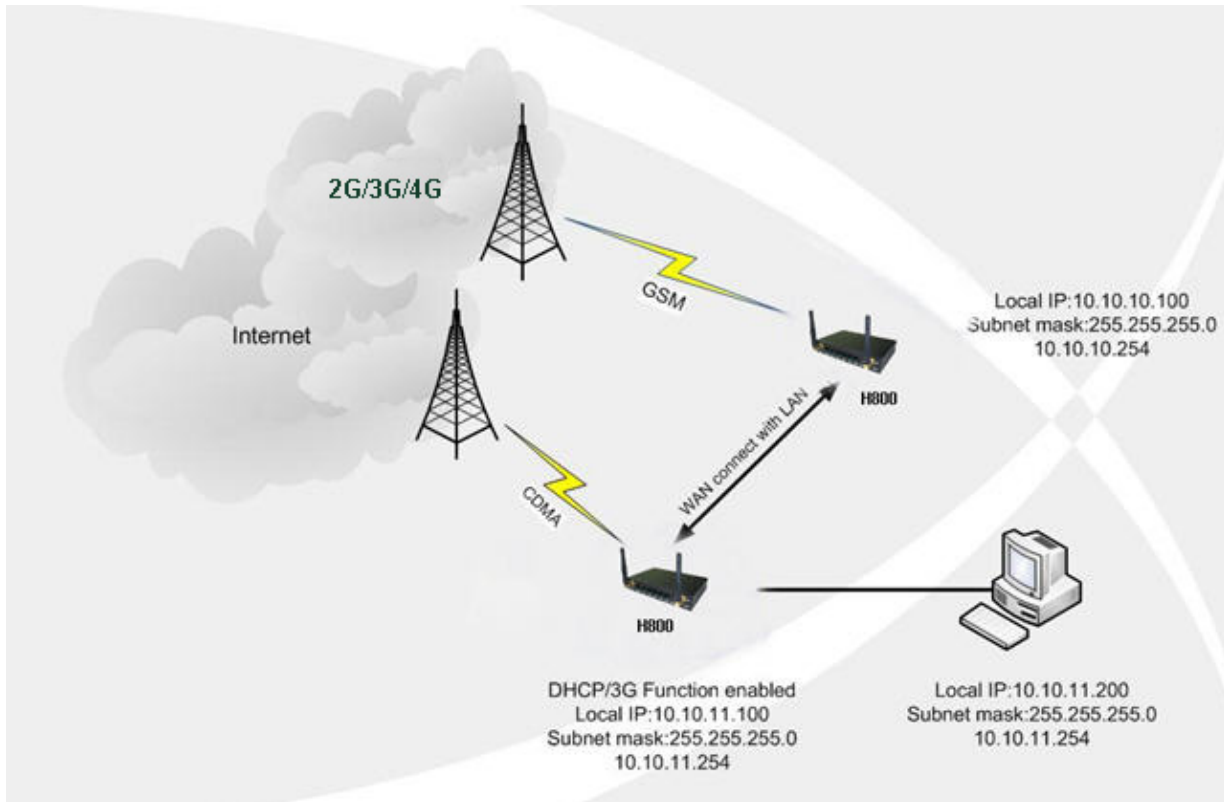
>>| Key Point

1. Auto-dial feature, keep alive link
2. Built-in watch dog
3. 1 WAN RJ45 port + 4 LAN RJ45 port
4. VPN (PPTP, L2TP, IPSec, GRE), SNMP
5. standard SMA antenna can be replaced with high gain type
6. 1 RS232 to RJ45 port for DTU feature (Serial to Cellular Gateway feature)
7. WiFi 802.11b/g/n 150Mbps, can choose 300Mbps.
8. RJ45 WAN (xDSL) and Cellular backup each other (Route Fail Over Feature)
9. Two H800 can backup each other if one H800 line failed. (to be Dual sim dual mode feature)
10. Always online, Reboot if the connection is failed.
11. Support two LAN IP address (VLAN feature)
12. SMS/Voice call to control router to be online and offline
13. GPS optional

>>| Typical Topology



Single H800 Application Typical Diagram



Dual H800 Application Typical Diagram

Dual H800 Application Combination type	
H800-1	H800-2
Network A	Network B
Network A	Network A
It means H800-1 and H800-2 can be same network, also can be different network. Network A can be any one of GSM/GPRS/EDGE/UMTS/HSDPA/HSUPA/HSPA/HSPA+/CDMA1x/EVDO; Network B can be any one of GSM/GPRS/EDGE/UMTS/HSDPA/HSUPA/HSPA/HSPA+/CDMA1x/EVDO; Please specify with us which network you will use before order.	

>>| 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 or 4G HSPA+ LTE 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
- 4 LAN RJ45 ports for Ethernet interface & 1 WAN RJ45 port
- WiFi 802.11b/g/n optional

>>| Enhanced Features

- Real-time clock
- VPN (PPTP, L2TP, IPSec, GRE) 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

- 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	
Compatible Mobile Networks	<ul style="list-style-type: none"> • UMTS WCDMA (HSUPA/HSDPA/HSPA/HSPA+) • GSM EDGE • GSM GPRS • CDMA1x • CDMA EVDO Rev 0 and Rev A • 4G LTE
Cellular Frequency	<ul style="list-style-type: none"> • UMTS/HSPA/HSUPA/HSPA/HSPA+ (WCDMA/FDD) 850/1900/2100 MHz or 850/900/1900/2100Mhz • Quad-band EGSM 850/900/1800/1900 • CDMA1x/EVDO: 800/1900Mhz or 450Mhz optional • 4G LTE: 700(B17)/AWS or 800/900/1800/2100/2600MHz or 700(B13)MHz
Bandwidth	<ul style="list-style-type: none"> • HSPA+ Downlink 21/42Mbps Uplink 5.76Mbps • HSPA Downlink 14.4Mbps

	<ul style="list-style-type: none"> • HSUPA Uplink 5.76Mbps Downlink 7.2Mbps Uplink 5.76Mbps • HSDPA Downlink 7.2 Mbps Uplink 384k bps • WCDMA/UMTS Downlink/Uplink 384 kbps • EDGE Downlink 236,8 kbps Uplink 118 kbps • GPRS Downlink 85.6 kbps Uplink 42.8 kbps • CDMA1x Downlink/Uplink 153.6kbps • CDMA EVDO Rev A: 3.1Mbps downlink, 2.4Mbps uplink Rev O: 2.4Mbps downlink, 153.6kbps uplink • 4G LTE Max. 100Mbps downlink, 50Mbps uplink
USB Host	No
SMS/Voice (optional)	SMS/Voice call to control router to be online and offline
GPS (Optional)	With GPS feature
DTU (Optional)	With DTU feature (Serial to Cellular Gateway feature)
VPN	PPTP, L2TP, IPsec, GRE (PPTP client, L2TP client, IPsec client, IPsec server)
SNMP	Support V1, V2. V3
VLAN	Support multi-LAN IP address, support two IP address
Wi-Fi	802.11b/g/n; 150Mbps default. 300Mbps optional. Frequency from 2.4GHz to 2.483GHz, Access Points, Routers and Gateway Server Applications, wireless up to 32 PC users
Fail Over (network Backup feature)	<ul style="list-style-type: none"> • Auto-dial feature, keep alive link • Built-in watch dog • Cellular to Line xDSL backup • Line xDSL to cellular backup

	<ul style="list-style-type: none"> • WiFi client mode DHCP to Cellular backup • Cellular to WiFi client mode backup • Two H800 dual sim same network (WCDMA1+WCDMA1) • Two H800 dual sim two network (WCDMA2+WCDMA2) • Two H800 dual sim dual mode network (WCDMA+CDMA2000)
Protocol	
Protocol support	TCP, UDP, SMTP, POP, ICMP, FTP, PPP, PPPoE, DHCP, DDNS, DNS, WPS, DMZ, Syslog, NAT, xDSL, NTP, QoS, SNMP, support firmware update locally or remotely.
Security	
Security	support 64/128 bits WEP, 802.1x, WPA, and WPA2 support WDS support WPA1/2 – PSK support WPA1/2 – 802.1x support EAP – TLS, TTLS, LEAP, PEAP TKIP, AES encryption support access with user name & password. support access control base WAN/LAN interface support access control base source IP address defense DOS attack, support SYN flooding, IP surfing, ping of Death, fragile, teardrop, land etc. support PAP & CHAP support IP filtering
Advanced Firewall Features	Network Address Translation (NAT) Stateful Packet Inspection (SPI) VPN Pass-through
Media Access Control	CSMA/CA with ACK
Certifications	REDIUS Client
Interface	
LAN	4X 10/100M LAN port (RJ45 interface) 1X 10/100M WAN port (RJ45 interface)
Antenna	1 or 2 antenna for Wi-Fi (SMA interface * 1, Internal *1) 1X antenna for Cellular (50Ω SMA female interface)
Led	<ul style="list-style-type: none"> • Power

	<ul style="list-style-type: none"> • SYS • WAN • LAN (10/100M) 1, 2, 3, 4 • WLAN • Cellular
Button	WPS, Reset
Console (serial)	1 console port (also can be used as M2M port) optional; RJ45 to DB9 for RS232 or RS485
Configuration Interface	Web/Telnet
At command	Supported
UIM/SIM Card Slot	Support 1.8V/3V UIM/SIM cards, one sim card slot
Power	
Power supply	DC7V-30V , typical DC 9V1A or 12V2A, 12v CAR USE
Power consumption	<ul style="list-style-type: none"> • Idle: 30mA@12VDC • Max: 400mA@12VDC • Average:200mA@12VDC
Software	
Device Management	<ul style="list-style-type: none"> • WEB interface (Internet Explorer v6 or Later; Mozilla Firefox v1.5 or Later, or other Java-enabled Browsers,Chome,Opera,Safari)
Minimum System Requirements	Mobile Internet Access Subscription and Internet PC Adapter Computer with: <ul style="list-style-type: none"> • Windows 7, Vista , Windows XP SP2, Windows 2000 SP4, or Mac OS® X (v10.4/v10.3), Linux • Internet Explorer 6 or Mozilla Firefox • CD-ROM Drive • Network Interface Card
Physical	
Operating Temperature	<ul style="list-style-type: none"> • Storage Temperature: -40 ~ 85°C • Working Temperature: -30 ~ 75°C • Humidity: 95% (non-condensing)
Humidity	95% Maximum (Non-condensing)

Dimensions	158mm x 106mm x 27mm	
Weight	415g (not including the antenna) 500g (including the antenna) 920g (including all accessories)	
Others		
Warranty	2 Year	
Package Contents	<ul style="list-style-type: none"> • The H800 Series wireless Router • CAT5 Ethernet Cable • Power Adapter • Antenna • CD-ROM with Product Documentation • Others depends on option features 	
Model	Marks	Optional
H800d	HSDPA Router, work under HSDPA/EDGE/GPRS/GSM networks	Serial for DTU, WiFi, GPS, Voice/SMS control
H800u	HSUPA Router, work under HSUPA/HSDPA EDGE/GPRS/GSM networks	Serial for DTU, WiFi, GPS, Voice/SMS control
H800p	HSPA Router, work under HSPA/HSUPA/HSDPA EDGE/GPRS/GSM networks	Serial for DTU, WiFi, GPS, Voice/SMS control
H800p+	HSPA+ Router, work under HSPA+/HSPA/HSUPA/HSDPA EDGE/GPRS/GSM networks	Serial for DTU, WiFi, GPS, Voice/SMS control
H800ev	EVDO Router, work under EVDO/CDMA1x networks	Serial for DTU, WiFi, GPS, Voice/SMS control
H800t	4G LTE Router, work under 4G LTE and back compatible to HSPA+/HSPA/HSUPA/HSDPA EDGE/GPRS/GSM networks	Serial for DTU, WiFi, GPS, Voice/SMS control

Notes: please inform us if you need DTU feature, WiFi Feature, GPS feature, Serial for DTU,

WiFi, GPS, Voice/SMS control before order.

The H800 router optional with din-rail, default we don't pack it. If customers need it, please inform us with order.

>>| Accessories

- The H800 Series wireless Router
- CAT5 Ethernet Cable
- Power Adapter
- Antenna
- CD-ROM with Product Documentation
- Others depends on option features



DB15 to DB9 Cable



DB9 serial cable



RJ45 to DB9 Cable



USB Cable



EU Power Supplier



US Power Supplier



AU Power Supplier



Desktop Power Supplier
EU, US, AU, UK for choice



UK Power Supplier



Metal Magnetic-Mount W/ Cable



Rubber antenna



Rubber Magnetic-Mount W/ Cable



CD-Rom with Manual/Data

Notes:

We packed the units with free accessories; default packed depends on stock and the device's feature requirement. If you need specify the type, please inform us when you order.