

InPortal3012 Vehicle Wi-Fi Router



Product Description

InPortal3012 is a dedicated vehicle Wi-Fi router with embedded NGINX web server and local storage SSD. With InPortal3012 and the Rainbow Wi-Fi cloud, motor coach operators may easily setup an advanced Wi-Fi operating system which provides device management, content management, vehicle location management, visitor management, statistical reports, and other features. Travelers simply connect to the Wi-Fi hotspot provided by InPortal3012 to surf Internet, and to enjoy local services such as VOD movies and interactive games provided by operators. By deploying the Rainbow Wi-Fi cloud, motor coach operators may easily remotely manage thousands of InPortal3012 devices, no matter changing visitor policy or updating media content deployed in InPortal3012.

The InPortal3012 is a portal into the mobile internet and a step forward in providing value-added services to travelers.

Advantages

■ Advanced Wi-Fi

- Support dual band 2.4GHz and 5.8GHz, fully compliance with IEEE802.11 ac/a/b/g/n standards.
- With 2X2 MIMO technology enabled, Wi-Fi connection bandwidth can reach as high as 1.2Gbps, brings amazing multi-user performance.

■ High-speed 4G Access

- Integrating up to two 4G cellular modules, IP3012 provides reliable TD-LTE/FDD-LTE access, with 100Mbps uplink and 50Mbps downlink.

■ GPS

- With GPS enabled, IP3012 provides vehicle location, speed/course over ground and track information.

■ Powerful Web Portal

- When visitors connect to the Wi-Fi hotspot provided by InPortal3012, a greeting splash page pops up, providing local media services and user authentication.

■ Built-in Web Server

- Embed reliable NGINX web server, enabling local media services.
- Support PHP, enabling dynamic page content.

■ Local Storage

- Support SSD up to 1TB, tolerating vibration from vehicle.
- Local storage may be used to store local web content, movies, music, apps, etc. to accelerate local access and to save internet bandwidth.

■ Content Update Mechanism

- In remote synchronization mode, locally stored contents may sync with the cloud.
- In local synchronization mode, content may be updated via SD card or FTP.
- Both modes may be hybrid to enable even more flexible operation.

■ Visitor Behavior Management

- Support visitor authentication by SMS or social accounts.

- Support QoS to limit per-user bandwidth and traffic, preventing overages and protecting latency-sensitive traffic.
- Support web sites blacklist and whitelist.
- **Cloud Management**
 - Support the Rainbow Wi-Fi cloud, enabling device management, content management, vehicle location management, visitor management, statistical reports, and other features.
 - Support CLI, web UI and SNMPv3.
- **High Reliability**
 - With dedicated vehicle power module inside, InPortal3012 tolerates power voltage dips, overruns, short and other failures. Support automatically power control with ACC signal to protect SSD and vehicle battery.
 - Fanless cooling design to simplify installation.
 - Support link quality inspection and auto-recovery to ensure reliable LTE access.
- **Robust Security**
 - Support IPsec VPN, DMVPN, L2TP, SSL VPN, and CA certification to ensure data security.
 - Support powerful firewall functions such as Stateful Packet Inspection (SPI), Access Control List (ACLs), DoS attack prevention, etc.
 - Support AAA, TACACS, Radius, local authentication, and multi levels user authority to ensure secure management.

Specifications

Software Specification

Items		InPortal3012
Network Connection	Network Access	APN, VPDN
	Access Authentication	CHAP/PAP/MS-CHAP/MS-CHAPV2
	Cellular Type	LTE, WCDMA(HSPA+), EDGE, GPRS
	LAN	ARP, Ethernet

Items		InPortal3012
	WAN	Static IP, DHCP, PPPoE
Protocols	IP	Ping, Traceroute, DHCP Server/Relay/Client, DNS Relay, Dynamic DNS, Telnet, SSH, HTTP, HTTPS, TFTP, FTP, SFTP
	IP Routing	Static Routing, RIP, OSPF, IGMP Proxy
Applications	Web Server	NGINX web server with PHP
	Shell Script	Support customized shell scripts
	VOD concurrency	>40 concurrent users (500Kbps data rate)
GPS	GPS	Optional
Security	Multi-Level Authority	Full Authority and Read-Only Users
	AAA	Local Authentication, Radius, TACACS+, LDAP
	Firewall	Stateful Packet Inspection (SPI), Anti-DoS Attack
		Filtering Multicast/Ping package, Access Control Lists (ACLs)
		NAT, PAT, DMZ, Port Mapping, Virtual Server
	Data Security	IPSec VPN, L2TP, PPTP, GRE, OpenVPN, DMVPN, CA(Automatic Registration)
	CA Certificate	PEM, PKCS12, SCEP
	Access Authentication	Portal Authentication
	Internet Behavior Management	Layer seven filtering, URL white list, black list
Anti-attack	ARP Attack Protection, MAC Address Filtering	
Reliability	Link Backup	Floating Route, VRRP
	Link Detection	Various Heartbeat Packets, Automatic Recovery from Failure
	Watchdog	Self-diagnostics, Automatic recovery from failure
QoS	Bandwidth Management	Limit maximum bandwidth by IP and interface
	Traffic Priority	Assign different priority levels to different traffic
Firewall	Firewall	ACL; DoS; URL filtering, limit video access, download, etc
WLAN	WiFi Standard	802.11a/b/g/n/ac
	WiFi Speed	2*2 MIMO,300Mbps+866Mbps
	Frequency Range	2.4GHz-2.4835GHz, 5.15~5.825GHz
	Working Mode	Access Point
	Max. No. of Clients	128

Items		InPortal3012
	Multiple SSID	8 Max. SSID
	Hide SSID	Support
	Security	Open system/shared key, WPA, WPA2
		64/128 WEP, dynamic WEP, TKIP
	Wi-Fi Service Quality	WMM
	PortalAuthentication	Portal Authentication, login webpage
	802.11	Support Single, Double Space, A-MPDU, A-MSDU, 20/40MHZ, Short GI, 11n access, and 802.11a/b/g compatibility
Adaptive Dynamic Rate Control	Support	
Management	Configuration	Configure via Console, local or remote HTTP, HTTPS, Telnet and SSH
	Upgrade	Upgrade via local or remote Web, Rainbow cloud, TFTP, FTP or SFTP server; Double image backup, image restored when upgrade fails
	Log	Local or remote log export
		Important Log Backups in Flash Memory
	Alarming	Support
	SMS	SMS to Inquiry Status, Configure, Reboot
	On-Demand Dial Up	Activate cellular connection by data or SMS, Scheduled uptime and downtime
	SNMP	SNMP v1/2/3 with InHand MIBs
	<i>InHand Device Manager Platform</i>	Centralized remote batch configuration, upgrades, data plan management
	AAA	Local authentication, RADIUS, TACACS+
	Custom Scripts	CLI Scripts, Shell Script
	Multilevel Authority	Multiple levels of user authority
	Diagnostic	Ping, traceroute, packet sniffer
	Time	SNTP
GPS	Optional	

3G/4G Specifications

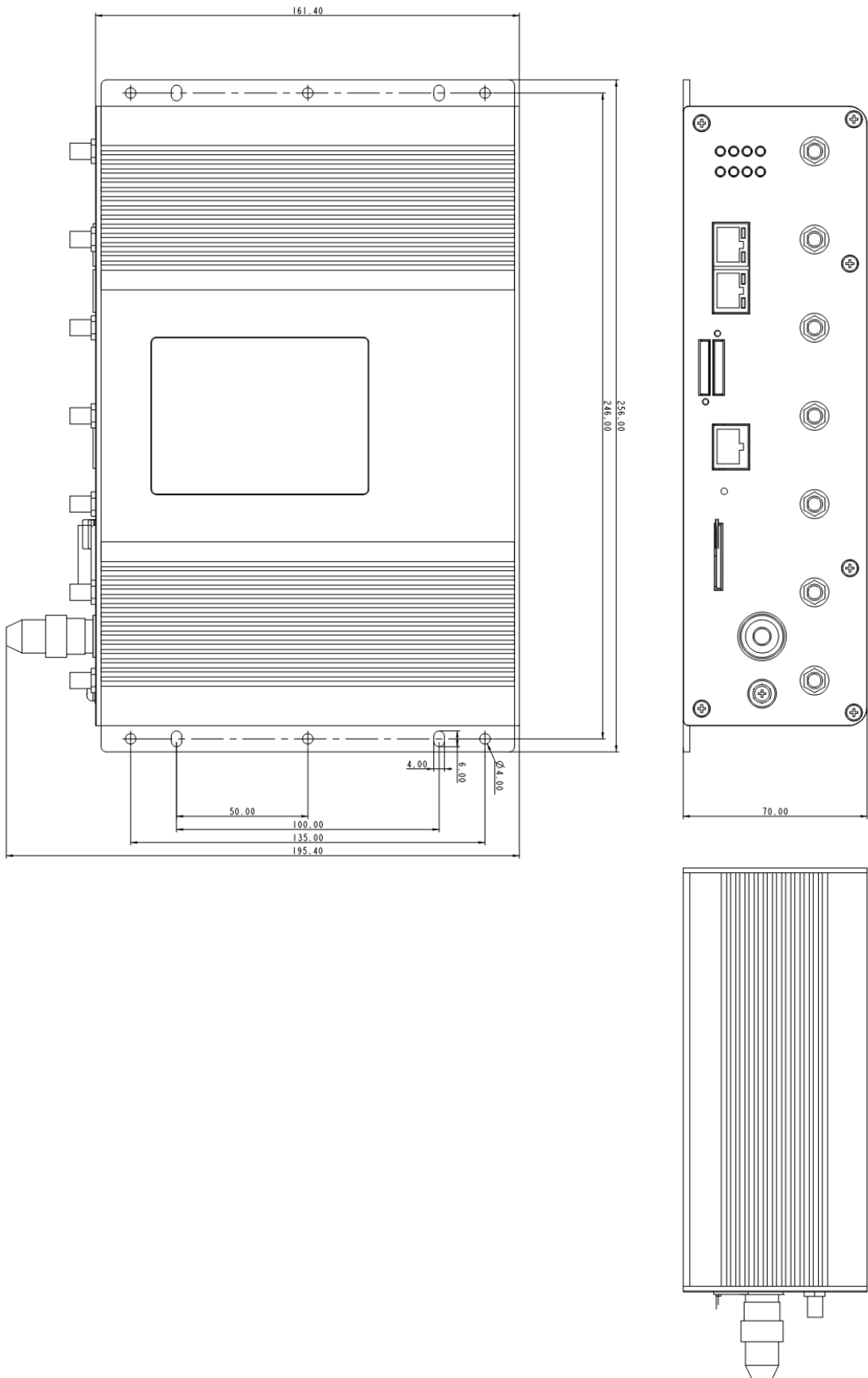
Items	Description
3G/4G	LTE-TDD Quad-band: Band 38/39/40/41(61Mbps downlink , 18Mbps uplink) LTE-FDD Tri-band: Band1/3/5(100Mbps downlink , 50Mbps uplink) TD-SCDMA Dual-band: Band 34/39(4.2Mbps downlink , 2.2Mbps uplink) UMTS Dual-band: Band 1/5(42Mbps downlink , 5.76Mbps uplink) GSM Quad-band: 850/900/1800/1900(237kbps downlink , 118kbps uplink)

Hardware Specifications

Items	InPortal3012		
Features	CPU	BCM53012, 1GHz, dual core A9	
	Memory	1GB	
	Flash	32MB	
	Module	3G, 4G-LTE	
Interface	Ethernet Ports	2*10/100/1000Mbps Fast Ethernet port	
	Console	RJ-45 serial port	
	SIM Holder	Push-pull SIM Card Holder *1	
	Reset	Pinhole Reset Button	
	Antenna	3G/4G:SMA x 2	
		Wi-Fi: RP-SMA x 4	
		GPSx1(optional)	
Wi-Fi	802.11a/b/g/n/ac		
GPS	NMEA 0183 V3.0		
Storage Function	SATA Storage	Embedded mSATA interface for SSD hard-drives	
	SD Card	Standard SD card interface	
	Network Storage Function	Supports a "Network Hard Disk" function to update storage contents without removing the disk	
Mechanical	Installation	Wall Mounted	
	Dimensions	256*161.4*70mm (10*6.35*2.8in)	
	Housing	Aluminum alloy	
	Protection	IP40	
	Cooling	Fanless	
	Weight(kg)	<1	
Power	Power Input	DC12V	
	Power Interface	Aviation connector	
	Standby Consumption	11.5W@12V	
	Working Consumption	12W@12V	
	Peak Consumption	13.5W@12V	

Items		InPortal3012
Environment	Humidity	5 ~ 95% (noncondensing)
	Storage	-40 ~ 85°C
	Working	-20~ 70°C
Others	Real Time Clock (RTC)	RTC, super capacitor as backup
Indicators	LED	POWER, STATUS, WARN, ERROR, 3G/4G Module, WIFI
EMC	ESD Electrostatic Discharge Immunity	EN61000-4-2,level 2
	RFI Radio Frequency Immunity	EN61000-4-3,level 2
	EFT Electrical Fast Transient/Burst Immunity	EN61000-4-4,level 2
	Surge Immunity	EN61000-4-5,level 2
	Immunity to Conducted Disturbances	EN61000-4-6,level 2
	Power Frequency Magnetic Field Immunity	EN61000-4-8, horizontal/vertical 400A/m (>level 2)
	Oscillatory Waves Immunity	EN61000-4-12,Level2
Physical	Shock Test	IEC60068-2-27
	Free Fall	IEC60068-2-32
	Vibration	IEC60068-2-6

Dimensions (mm)



Ordering Information

Items	InPortal3012
Part Number	IP3012<N>-<WMNN>-<U>-<GPS>-<M>-<GW>
N(Cellular Type)	P - Ethernet(no cellular module), L - LTE
WMNN (Cellular Module)	W=Networks F - FDD-LTE、 T - TDD-LTE、 P - Ethernet MNN= Module info
U	Aluminum alloy metal housing
GPS	GPS: support GPS, <NA>: no GPS
M	M16: 16GB SSD; M64: 64GB SSD; M128: 128GB SSD;M256: 256GB SSD; <NA>: no SSD
Example	IP3012L-TL00-STD-GPS-M16: 2*ETH ports, LTE, GPS, metal housing, 16GB SSD

InHand Networks

InHand Networks provides reliable, secured and intelligent M2M solution for electric power, industrial automation, commercial and medical devices. We are recognized by world class customers and partners and proven by a large install base.

InHand Networks has become leader in industrial grade network technology by providing industrial cellular routers, industrial Ethernet switches, wireless sensor network devices and cloud based M2M platforms.

Connecting devices, enabling service.



InHand Networks

3900 Jermantown Rd., Suite 150
Fairfax, VA 22030
USA
T: +1-703-348-2988
F: +1-703-348-2988
info@inhandnetworks.com
www.inhandnetworks.com