



F3938

ROUTER

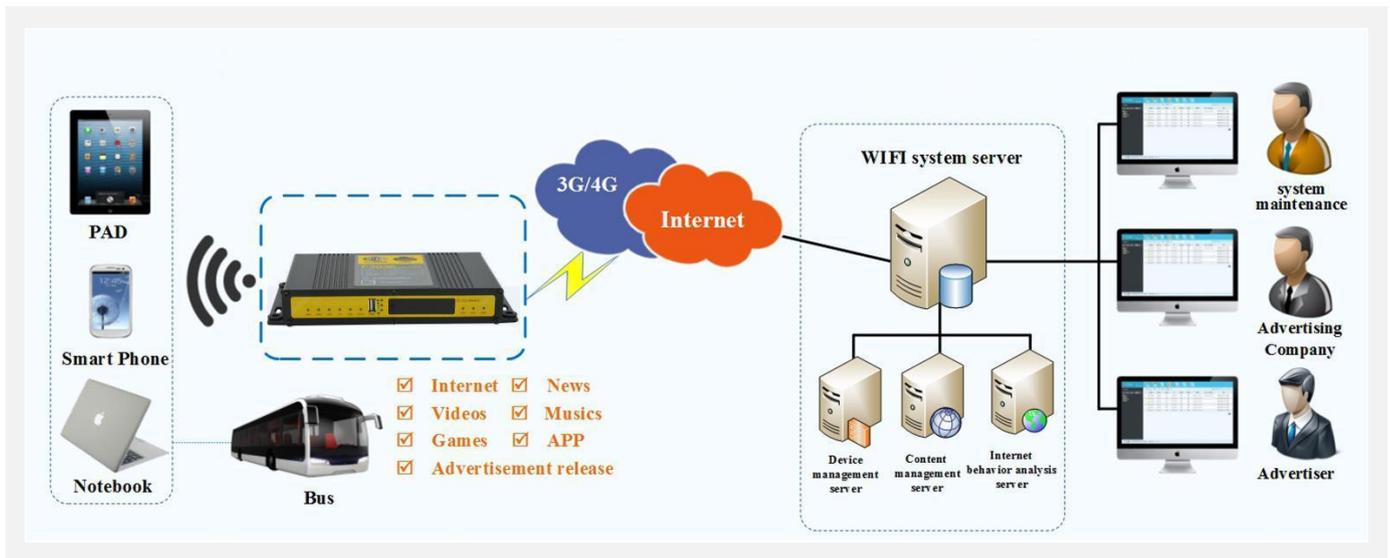
Technical Specification



F3938 is a vehicle WIFI new media operating terminal and it integrates the advanced 3G/4G/WIFI communication GPS/Beidou(optional) positioning technology , local large-capacity storage and multimedia advertising push technology. The passengers can use smart phones, PAD and notebook to enjoy freely the local videos, news, music, games, and quickly connecting the Internet, etc. And media operators may carry out more value added services.

F3938 has been already widely used in public transportation, tourism, finance and medical industries, such as urban public transport, customized bus, bus stations, tour bus, long-distance passenger bus, tourist attractions, bank, hospital and so on.

Application Topology



Product Specification

Design for Vehicle Application

- High-powered 32bits CPU
- Vehicle power supply design, support under-voltage, over-voltage, over-current, reverse connection, short circuit, surge protection
- Wide Power range: DC 9~36V
- Wide Operating Temperature (-35~+75°C)
- Aviation plug for power input
- Metal shell, high heat radiating and anti collision performance
- Shockproof design, suitable for vehicle vibrating environment
- Security structure design for TF/SIM card
- Support backup power supply connection

Stability and Reliability

- Support hardware and software WDT to ensure the stability of the system
- Support auto recovery mechanism, including online detect, auto redial when offline to make router always online
- Data storage with SSD, ensure the data security and stability on high speed read and write
- Ethernet port: 1.5KV magnetic isolation protection
- RS232/RS485/RS422 port: 15KV ESD protection
- SIM/UIM port: 15KV ESD protection
- Antenna port: lightning protection(optional)

Standard and Convenience

- Support all kinds of the Intelligent WIFI terminals
- Smart data terminal, enter into communication state automatically when powered
- Provides standard wired network and wireless 3G/4G network
- Small size device, rapid establishment of wireless network to use
- Provide powerful business platform for equipment management, content management and release, report management, user behavior statistics analysis, authority management, alarm management, and other functions

High-performance

- Support website redirection, local captive portal, remote captive portal
- Support various authentication ways, including mobile phone number authentication, WeChat authentication, Twitter authentication, Google authentication, Facebook authentication or without authentication.
- Support WIFI channel hopping for anti-interference
- Support English SSID
- Support SSD(Solid State Disk) and TF card for local storage
- WIFI TX power is configurable for optimized wireless coverage
- Support WEB server. Supports PHP, XML, and database storage(optional)
- Support WIFI inspector
- Support black/white list of URL, account, IP address, MAC address
- Support traffic statistics. Support monitoring of device traffic, user traffic and online duration monitoring.
- Support user's surfing behavior record, local PV/UV statistics and transmit these data to server at real time for data statistics analysis.
- Support real time log auditing based on user's URL access
- Local information contains advertisement, news, APP, video, music, etc. Support various video formats and streaming media delivery
- Local information update support whole update and incremental update, support grouping update, support break-point resume and outage resume, support A/B backup, support update via 3G/4G, FTP, station WIFI(optional) and U disk upgrades Support remote firmware upgrade, including upgrade on single device, devices in patch and automatic upgrade, support break-point resume, outage resume, U disk upgrades
- Support remote terminal parameters configuration, can be a single, batch configuration, custom configuration, at the same time support online/offline equipment configuration and U disk field configuration
- Support monitoring device status at real time, including CPU, memory, signal strength, network status, storage and alarm
- Supports completed functionality of router
- Support SPI firewall, access restriction, URL filter, QoS, NAT, etc
- Support NTP, schedule reboot and schedule boot/shutdown with built-in RTC
- Support various WAN connection types, including static IP, DHCP, PPPoE, 3G / 4G, etc
- Support 3G/4G network and Ethernet WAN for backup(optional)
- Support VPN client and VPN server(PPTP, L2TP, OPENVPN, IPSEC and GRE(only VPN version supports))
- Support the GPS/Beidou positioning function (optional)

Product Specification

Cellular Specification

Item	Content
Cellular Module	High-performance cellular module (optional single module, double module or no module)
Standard	Can support: TDD-LTE/FDD-LTE/EVDO/WCDMA/TD-SCDMA/CDMA1X/GPRS/EDGE Optional support: single-mode, multi-mode or All network communication
Bandwidth	FDD LTE(DL:100Mbps,UL:50Mbps) TDD LTE(DL:68Mbps,UL:17Mbps) CDMA2000 1X EVDO Rev A (DL:3.1Mbps,UL:1.8Mbps) WCDMA(DL:42Mbps,UL:5.76Mbps) TD-SCDMA(DL:4.2Mbps,UL:2.2Mbps)
TX power	<24dBm
RX sensitivity	<-109dBm

GPS Specification (optional)

Item	Content
GPS Module	Industrial GPS module(optional Beidou module)
Receiver Type	50-channle GPS L1 (1575.42MHz) C/A code SBAS: WAAS,EGNOS,MSAS,GAGAN
Max. update rate	5 Hz
Accuracy	Position: 2.5m CPE SBAS: 2.0m CPE
Sensitivity	Tracking: -160dBm Reacquisition: -160dBm Cold starts: -146dBm

WIFI Specification

Item	Content
Standard	IEEE802.11b/g/n/a/ac
Bandwidth	IEEE802.11b/g : 108Mbps(max) IEEE802.11n : 300Mbps(max) IEEE802.11ac : 780Mbps(max)
Security	WEP, WPA, WPA2, etc. WPS (optional)
TX power	20dBm (11n) , 24dBm (11g) , 26dBm (11b) , 16dBm (11ac)
RX sensitivity	<-72dBm@54Mbps

Hardware System

Item	Content
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CPU	High-performance Dual core 32bits CPU
FLASH	32MB(Extendable to 64MB)
DDR2	512MB
SSD	128GB(up to 2TB)(optional)
TF	32GB(optional)
Interface type	
Item	Content
WAN	1 10/100/1000 Mbps WAN port(RJ45), auto MDI/MDIX, 1.5KV magnetic isolation protection
LAN	1 10/100/1000 Mbps Ethernet ports(RJ45), auto MDI/MDIX, 1.5KV magnetic isolation protection
Serial	1 RS232(or RS485/RS422) port, 15KV ESD protection Data bits: 8(optional 5, 6, 7,) Stop bits: 1, 1.5(optional), 2 Parity: none, even, odd, space(optional), mark(optional) Baud rate: 2400~115200 bps
Indicator	“PWR”、“SYS”、“SIM”、“GPS”、“Online”、“SSD”、“TF”、“LAN”、“WAN”、“WIFI”, "Signal Strength"(Indicator according to the configuration)
Antenna	Cellular: Standard SMA female interface, 50 ohm, lighting protection(optional one, two or not) GPS:One standard SMA female interface, 50 ohm, lighting protection(optional) WIFI: Two standard SMA male interface, 50 ohm, lighting protection
SIM/UIM	Standard 3V/1.8V user card interface, 15KV ESD protection
USB	Standard A type USB host interface, one supports USB2.0, one supports USB 3.0 High-speed
TF	Standard TF card interface
Power	Aviation plug or vehicle power jack, reverse-voltage and overvoltage protection
UPS	Used to connect back power supply
Reset	Restore the router to its original factory default settings



Power supply

Item	Content
Standard Power	DC 12V/1.5A
Power range	DC 9~36V

Working current	3G : <750mA (12V)	4G : <850mA (12V)
Standby current	3G : <450mA (12V)	4G : <500mA (12V)
Physical Characteristics		
Item	Content	
Housing	Metal shell, shock proof design	
Dimensions	244x139x36 mm	
Weight	940g	
Other Specification		
Item	Content	
Operating Temperature	-35~+75°C (-31~+167°F)	
Storage Temperature	-40~+85°C (-40~+185°F)	
Operating Humidity	95% (unfreezing)	