

Moovbox M340 Mobile Broadband Gateway

In-Vehicle Cellular Router & Wi-Fi Access Point



- ▶ 8 x SIM, Quad modem
- ▶ Intelligent load balancing
- ▶ Built in storage for local content
- ▶ LTE, HSPA, HSPA+, EV-DO
- ▶ 50-channel GPS, Galileo Ready
- ▶ 802.11b/g/(n*) Wi-Fi access point
- ▶ 3 x 10/100 Ethernet RJ45
- ▶ Rugged industrial enclosure
- ▶ 12-36V DC
- ▶ Remote management
- ▶ Inbound VPN access
- ▶ E-Mark, FCC, CE compliance

Introducing the Moovbox M340 from Icomera, the world's leading provider of cellular broadband gateways.

From the award-winning Moovbox Series Mobile Broadband Gateway range the M340 is a quad-radio, ruggedised in-vehicle 3G/4G router that delivers Ethernet, Wi-Fi and GPS over a range of carrier-class backhaul networks.

Whether for Internet services on passenger transport or secure VPN connectivity for public safety vehicles, the Moovbox M340 is a solution that works wherever there is mobile data coverage and supports 2G, 3G and 4G cellular wide area networks (WANs) including GPRS, EDGE, 3G, EV-DO, HSPA, HSPA+, and LTE. The backhaul-agnostic Moovbox M340 supports 4 embedded modems in PCI express mini card form factor and 8 SIM cards. These modems operate simultaneously providing concurrent backhaul connections that can be configured for failover between different carriers, or for independent connections dedicated to Ethernet and Wi-Fi interfaces respectively. Both Ethernet and Wi-Fi interfaces can be configured as Backhaul offering support for many 3rd party CPEs. The Moovbox M340 also contains a storage expansion slot (compact flash) for storing the captive portal and local content. The Moovbox range has a modular WAN approach providing an in-field upgrade path to future WAN technologies without the need to change the Moovbox hardware.

The Moovbox range features a commercial grade 802.11b/g/(n*) Wi-Fi access point supporting multiple SSIDs, captive portal, RADIUS AAA and traffic prioritization making it suitable for delivering Internet access to passengers as well as secure access for transport staff. A 3x switched/routed 10/100 Ethernet interface provides connectivity for peripheral equipment such as IP-CCTV, digital video recorders (DVR), ticketing, voice announcement and black-box systems.

In situations where static IP addresses from mobile carriers are unavailable, the Moovbox supports secure VPN tunneling to provide inbound access and control of downstream equipment. Drawing power from a vehicle's electrical system, the bulkhead-mounting Moovbox range features industrial-grade external connectors for an in-vehicle Wi-Fi antenna and dash, window or roof mounting cellular & GPS antennas¹.

Multiple Moovbox gateways can be remotely monitored and configured with the optional² MoovManage web-based management system which also provides Wi-Fi user authentication, traffic shaping, user controls, content filtering and bandwidth statistics reporting. The optional MoovManage Track service leverages the built-in GPS receiver to provide remote device location, vehicle schedule adherence monitoring and cellular network quality analysis. The optional MoovManage Ads service delivers targeted advertising for passenger transport applications.

Installed in passenger transport and public safety vehicles worldwide, the Moovbox is the easiest way to provide connectivity wherever it's needed.

"Wi-Fi is becoming increasingly popular on public transport – indeed our research suggests that Internet connectivity is a high priority for our customers. FirstGroup has installed Icomera's mobile Wi-Fi hotspot technology on many UK routes, and it has proved popular as well as reliable."

Alex Warner
Managing Director, Greyhound UK



¹ A wide range of Moovbox-compatible 3rd party antennas is available
² Requires a subscription to the MoovManage hosted management service
 * Upgrade option.

Moovbox M Series – M340

Technical Specifications



Dimensions

280mm (W) x 160mm (L) x 44mm (H)

Weight

2.20kg including four WAN modems

Materials

Black painted steel casing
6 mounting points same as M310
Fanless operation
Solid-state electronics (no moving parts)
Shock and vibration resistant

Power Inputs

12-36V DC via built-in Molex connector
Reverse Polarity protection
Cigarette lighter adaptor available

Power Consumption

Max 28W including 4x WAN modem

Antenna Connectors³

2 x RP-SMA for Wi-Fi (main and auxiliary)
8 x RP-SMA for 3rd party WAN antenna
1 x SMA for 3rd party GPS antenna

Interface Ports

3 x 10/100 Ethernet RJ45 interfaces
1 x RS232 Serial interface

Indicators

1 x Power LED
1 x HDD active LED
1 x GPS active LED
1 x Wi-Fi active LED
4 x WAN status LED
1 x System LED (user configurable)

Environmental

-20°C to +60°C Operating Range
-40°C to +70°C Storage Range
5% to 95% humidity (non-condensing)

Wi-Fi Radio

Wi-Fi Certified Atheros AR9220 chipset
200mW maximum power

Wi-Fi Frequency

2.400 ~ 2.483 GHz

Wi-Fi Data Rates

802.11b: 1, 2, 5.5, 11Mbps
802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps
802.11n: @800G(400G) (upgrade option)
20MHz BW
1 Nss: 65(72.2)Mbps max
2 Nss: 130(144.4)Mbps max
40MHz BW
1 Nss: 135(150)Mbps max
2 Nss: 270(300)Mbps max

Wi-Fi Access Point Features

Multiple SSIDs, 802.1q VLANs, QoS
DHCP, NAT, captive portal, port forwarding, TX power control

Wi-Fi Security

WPA with AES TKIP (802.11i)
128-bit WEP, 802.1x, RADIUS AAA⁴
Layer 2 Isolation to prevent client-side bridging

GPS

50-channel simultaneous operation
L1 frequency (1575.42 MHz)
Active antenna
MoovManage GPS transmission protocol
NMEA over RS232 and IP
Galileo Ready
Battery backup

GPS Accuracy

Horizontal: 2.5m
Velocity: 0.1m/s
Heading: 0.5°

GPS Acquisition

Hot Start: < 1 sec (100%)
Cold Start: < 26 sec (100%)

Local Storage

1 x compact flash card, 2-16GB

WAN Modems

4 x PCI express mini card slots
8 x SIM cards, 2 per modem

WAN Interface⁴

GSM/EDGE, EV-DO Rev A
3G UMTS/HSPA/HSPA+, LTE
Ethernet, Wi-Fi

Management

Embedded web configuration via HTTPS
Remote monitoring via SNMP
Inbound VPN tunneling using OpenVPN
Supports optional MoovManage service

Compliance

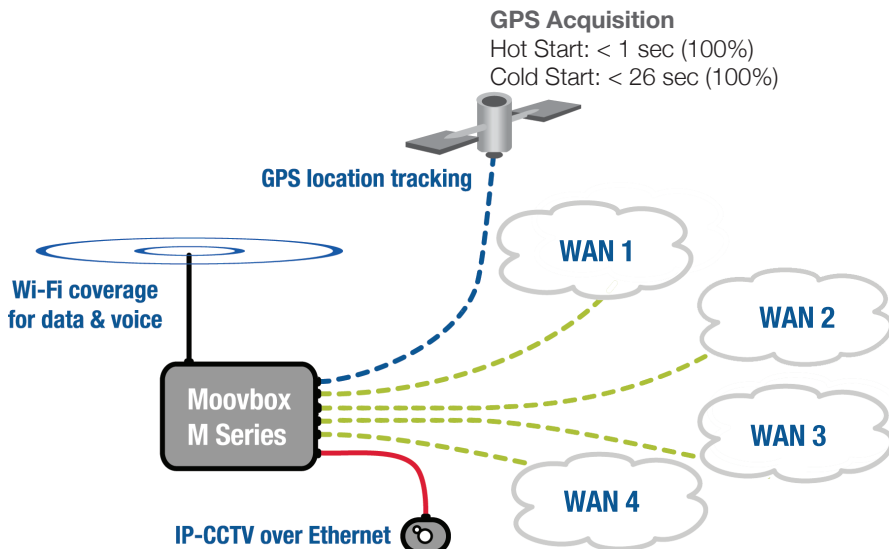
R&TTE (1999/5/EC)
RoHS (2002/95/EC)
E-Mark (2004/104/EC, CISPR-25)
CE, FCC compliant, C-Tick

Warranty

One Year Hardware Warranty
MoovCare Extended Warranty available

SKU

1034001000



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Part #1034001000

³Wi-Fi and WAN connectors offer RX Diversity

⁴Contact Icomera for details of worldwide mobile data networks supported