

# Gateway C254 GSM Router

## Connect async and Ethernet devices to a GSM Network with modem fallback

The JBM Electronics Gateway C254 is a compact wireless router designed to economically connect devices to a cellular network. This Linux-based router allows TCP and async devices access to a GSM network. The C254 provides protocol conversion, security and routing for the terminal's data. A fallback modem provides a second path in the event of a disruption of the cellular service.

The C254's low price point and advanced features provide a simple solution that can be deployed in a variety of network environments. The C254 is designed for low bandwidth applications such as ATMs, POS and remote monitoring. If high bandwidth is required for the applications such as DSL fallback and small office connectivity, the Gateway C134 can be used to access GSM Edge networks.

The C254 provides all of the processing capabilities needed to interface terminal devices to the host system, including custom headers, data manipulation and special routing. The Gateways' fallback and management capabilities allow the units to be quickly integrated into existing networks and management systems.
















## Features

The C254 provides the following ports and software:

- One 10/100BaseT Ethernet port
- One Async RS-232C port
- One 56 KB V.92 modem for fallback
- Integrated GSM/GPRS modem
- Firewall, NAT and Port Forwarding
- VPN, SSL and 3DES Support
- DHCP Client and Server
- Dynamic DNS Support
- IP Routing
- Bandwidth optimization
- Web based configuration and management

Each port is independent, which allows the C254 to simultaneously support multiple devices.

## Benefits

-  Quick and easy installation and deployment
-  Avoid circuit installation charges
-  Eliminate dedicated dial or leased lines for remote devices
-  Lower transaction fees for IP connectivity versus dial or Leased Line
-  Reduce recurring phone line costs
-  Lower capital expense by maintaining ability to use existing equipment
-  No need to retrain employees on new equipment
-  Seamless installation to existing systems and equipment
-  Supports different processors through application-specific headers
-  Selects TCP session and header format via dial string or data
-  Facilitates remote management via IP connectivity using Telnet or SNMP
-  Improves overall manageability of remote devices and reduces truck rolls
-  Certified by Cingular

## Installation

Installation of the Gateway is simple. The SIM contains the network definitions and access to the optional carrier VPN. The Gateway's terminal interface can be configured through a set of web menus, remotely through an FTP transfer of the configuration file or automatically through JBM's Management Server.

The Management Server maintains a mySQL database of installed Gateways with their associated reference information and unit configurations. At installation time, the Gateway can connect to the Server and retrieve its configuration definitions, applicable patches and scripts. This automated retrieval supports both static and dynamic IP Addresses and provides secure access control. The central site operator can use the Server for command and control of the remote Gateway. The Server can retrieve logs, reset ports or tasks and initiate diagnostics.

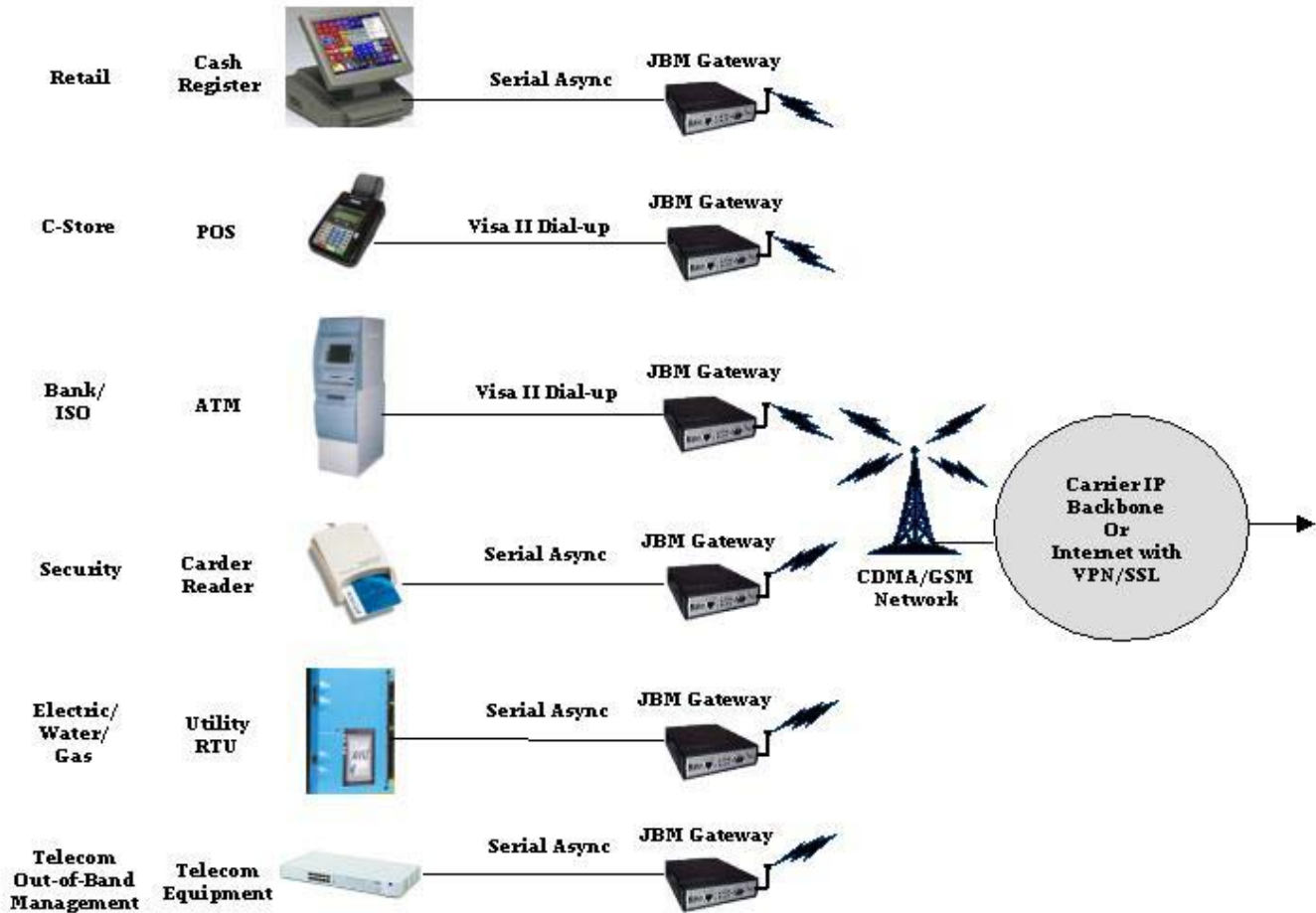
## Industry Uses

The Wireless Gateways can convert any Ethernet, RS232 serial, or dial-only device to wireless for transport. This capability provides support for applications like out-of-band management, monitoring and control of remote devices, and transport of transaction data. This opens the door for many industries with remote devices to reduce their carrier costs and save on expensive leased lines or dial-ups. Below is a list of just some of the industries for which the Wireless Connector Series makes sense:

- **Financial** (Transaction Data)
  - Point of Sale (POS) Terminals
  - ATM's
  - Retail
  - C-Store
  - Gas Stations
- **Utilities** (Monitoring & Control)
  - Electric Power Generation & Distribution
  - Natural Gas
  - Water
  - Pipeline
- **Government** (Monitoring & Control)
  - Local
  - State
  - Federal
- **Transportation** (Monitoring & Control)
  - Railroads
  - Airline
  - Reservations
  - Traffic Management
- **Security** (Monitoring & Control)
  - Surveillance
  - Alarms
  - Access Entry
- **Telecommunications** (Monitoring & Control)
  - Out of Band Management
  - Terminal Server
  - Environmental Monitoring & Control

**Applications**

The Gateways provide IT managers the flexibility to convert any Ethernet, serial, or dial-up circuit to wireless. The Wireless Connector Series also allows data from non-IP devices to be converted to IP for transport over a wireless network. Some of the supported device types are illustrated below:



**Features & Functionality**

**Wireless Interface**

The C254 router uses an industry standard MultiTech SocketModem module for compatibility with Cingular’s network. The wireless interface is designed with an external antenna for mounting outside equipment cabinets or ATMs for better reception.

**Security**

All of the JBM Gateways have a full range of Linux security features including SSL client/server, IPSEC VPN client/server, Manual or Dynamic Keys, 3DES or AES encryption, Network Address Translation (NAT), transparent bridging mode, IP and Port filtering, and intrusion protection with an integrated Stateful Inspection Firewall.

**Router Functionality**

The Wireless Connector Series offers full IP routing functionality supporting Static, RIP, OSPF, and BGP routing. The Gateways support DHCP, DHCP client, GRE, PPP, and PPPoE for broadband users.

**Compatibility**

Compatibility is never an issue with the Wireless Connector Series since JBM uses all standards-based protocols. Interoperability between JBM and other router/VPN vendors is fully supported.

### Fallback Routing

One of the Gateway's key features is the ability to perform fallback routing. Fallback routing enables a user to configure alternate paths to the host or to several hosts for disaster recovery. The fallback path can be to a different IP server or with a properly equipped Gateway, through a different connection such as a cell or dial modem.

### Management

The JBM Gateways can be configured through CLI Command entered via console port or Telnet. The Telnet connection provides command, control, and monitoring of the Gateways. SNMP is supported with SNMP Traps providing notification of major events in the Gateways. SSH is also supported for security of the management connection. Extensions to the Telnet or SNMP commands are available as a special order.

### IP Header Manipulation

Unlike many competitors, the Gateways support Data and Header manipulation, allowing seamless access into many host systems. This important, customizable feature allows the customer to change the content or format of the IP headers. This capability gives the customer the flexibility to connect to any transaction processor or host system.

### Data and Phone Number Routing

In addition to the header manipulation, the Gateways can perform routing based upon the dial phone number or specific data fields. The routed message, built with the processor-specific header, can be sent to the remote destination. This capability allows the Gateway to support many unique processors with all of the conversion occurring at the network's edge.

### Protocol Conversion

All of the JBM Gateway products support protocol conversion, and when it comes to protocol conversion, JBM is the industry leader with over 50 different protocols in our software library. Protocol conversion is necessary when converting a host to IP or introducing a new Transaction Switching System. Our Gateway products provide our customers with a seamless and non-intrusive migration to IP. The Wireless Connector Series support conversion of most financial async protocols.

### C254 Specifications

Wireless Module:	MultiTech:	SocketModem
	Data Rate:	153 Kbps Forward and Reverse
	Power Output:	0.2W – 0.3W
GSM/GPRS:	Single Band:	GSM 850/900 or GSM 1800/1900
	SIM Module:	User-supplied
LAN Port:	Ethernet:	10/100BaseT
	Interface:	Female RJ-45 connector
Async Port:	Baud Rate:	110-56,000 bps
	Interface:	Female DB-9 connector, RS-232C, DCE mode, DTE mode with adapter cable
Async Modem:	Baud Rate:	Up to 56 KB (V.92 technology)
	Interface:	Female 6 pin Modular plug
Console Port:	Baud Rate:	Up to 115,200 bps
	Interface:	Female DE-9, RS-232C DCE mode DTE mode with adapter cable
Operating System:	Linux 2.4 Kernel	
Management:	Console Port:	CLI Access through async PPP connection
	IP Protocol:	SNMP and Telnet or SSH
LED Indicators:	Wireless Port:	Status, Ready, Transmit, Receive
	LAN Port:	Link, Transmit, Receive
	Serial Port:	Transmit, Receive
	Modem Port:	Off-Hook, Transmit, Receive
	Power:	On/Off State
Power:	12V DC (External) 120-240 VAC, 50/60 Hz	
Antenna:	Built-in or External, SMA Connector	
Physical:	Size:	8" W x 2.48" H x 7" L
	Weight:	2 pounds
Processor:	486DX-100	
Memory:	32 MB RAM, 16MB Flash	
Warranty:	1 Year Parts and Labor	

We continually enhance the Gateways so specifications are subject to change without notice.