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CloudGate



CONNECTING THINGS to the Cloud

- Simple, value priced WWAN M2M IP connectivity
- Automatic connection monitoring and error recovery
- Secure, redundant firmware and configuration images
- Unique software and hardware configuration flexibility
- Automatic provisioning of custom middleware



Simple, value priced WWAN M2M IP connectivity

The CloudGate M2M Gateway from Option provides competitively priced LAN to WWAN routing and GPS functionality in a single basic unit certified on all major US cellular operators (CDMA/EvDO and WCDMA/HSPA+). The CloudGate is simple to configure locally or remotely from your PC, tablet or SmartPhone.

Reliable and secure

CloudGate automatically resolves common problems associated with wireless M2M connectivity.

Built in software and hardware watchdogs continuously monitor each component of the product and the product's connectivity to home servers. In the event an issue is detected, the product proactively takes steps to re-establish connectivity.

All software and configuration images are protected with digital signatures and have dual rollback images that allow the product to revert to previous working settings if an issue is detected.

All management functions are protected by certificate and/or password based security mechanisms and all management actions take place over hardware assisted encrypted links.

Flexible and cost effective to integrate and deploy

CloudGate provides unique flexibility that allows customers and system integrators to tailor the product to their solution or even site specific requirements. CloudGate incorporates two hardware expansion slots that allow the CloudGate to be enhanced with additional radio and/or wired interfaces. The expansion cards are simple and quick to install, allowing the field upgrade of the device when new functionality is required.

An 802.11abg Wireless LAN Access Point and Client accessory card is available from Option and all the design details of the expansion card are available to partners allowing you to add value with your own hardware products.

CloudGate also allows simple integration and provisioning of customer or system integrator middleware and applications on the device. The automated cloud provisioning system means that each device can be set with its own custom configuration and image that is automatically loaded from the cloud when it initially connects to the internet

Summary

The Option CloudGate M2M Router has the basic, simple to use functionality for most applications along with the unique flexibility for meeting specific requirements that makes it the ideal choice for use with your solution.

Features	Sub Feature	Description	
WWAN Modem	Supported frequency bands	<ul style="list-style-type: none"> GSM/GPRS/EDGE: 850/900/1800/1900 MHz UMTS/HSDPA/HSUPA/HSPA+: 800-850/900/1900/2100 MHz and AWS band (1700/2100 MHz) (B1, B2, B4, B5, B6, B8) CDMA 1xRTT/EV-DO rev0/EV-DO revA (GTM689 only): 800/1900 (BC0, BC1) 	
	Max. Connectivity speeds	<ul style="list-style-type: none"> HSPA+: 14.4 Mbps (Cat 10) down 5.76 (Cat 6) up EV-DO RevA mode: 3.1 Mbps FL/1.8 Mbps RL HSPA+ Rel 7 SW features CPC (DTX/DRX), Enhanced L2, EF-DPCH 	
	Rx Diversity	<ul style="list-style-type: none"> Simultaneous Equalization and Rx Diversity on all bands, except for GSM/GPRS/EDGE 	
	Connectors	<ul style="list-style-type: none"> 1 x SMA: WWAN Main 1 x SMA: WWAN Div 	
	Visual feedback	<ul style="list-style-type: none"> Seven 3 color LEDs showing system status and signal strength 	
GPS	Assisted/Standalone GPS	<ul style="list-style-type: none"> Standalone GPS, Assisted GPS, gps OneXTRATM Wideband GPS processing (20MHz) for improved measurement accuracy 	
CPU		<ul style="list-style-type: none"> ARM926EJ-S @ 450MHz Memory available for customer applications 30 Mb R/O flash for executables 30 Mb R/W flash shared with system 40 Mb free RAM 1 Mb Configuration data 	
Ethernet (IEEE 802.3)		<ul style="list-style-type: none"> 10/100Mbps RJ45 Connector 	
SIM	USIM/SIM connection	<ul style="list-style-type: none"> USIM/SIM connection – Class B and Class C 	
Expansion Slot 1 & 2		<ul style="list-style-type: none"> Expansion board for IO functions such as serial, USB, GPIO, WiFi 	
Power	DC Power in	<ul style="list-style-type: none"> 9-33 V DC 	
	Connector type	<ul style="list-style-type: none"> Micro-Fit 3.0™, Dual Row, 4 Circuits 	
	Current consumption	<ul style="list-style-type: none"> All measurements at 12V DC CloudGate attached to 2G network, no Ethernet: 121mA. CloudGate attached to 2G network, Ethernet connected: 136mA CloudGate attached to 2G network, no Ethernet, 2G call (2Tx, 32dBm): 270mA, peak = 772mA CloudGate attached to 3G network, no Ethernet, 3G call @ 2100MHz (band 1): 341mA 	
		Case	<ul style="list-style-type: none"> Dimensions (w x d x h) • 115 mm x 105 mm x 45 mm
		Weight	<ul style="list-style-type: none"> • 180 g
		Mounting	<ul style="list-style-type: none"> • 6 through holes for M4 bolts - 2 x 2 compatible with VESA Mount MIS-D 75 (Optional standard DIN rail mounting interface)
Enviromentals	Operating temperature	<ul style="list-style-type: none"> • -30°C to 70°C 	
	Storage temperature	<ul style="list-style-type: none"> • -40°C to +85°C 	
	Humidity operational	<ul style="list-style-type: none"> • 5% - 95% non condensing 	
Certification		<ul style="list-style-type: none"> • FCC • IC • PTCRB 	
	Standards compliance	<ul style="list-style-type: none"> • ROHS, Reach 	



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1. Configure CloudGate provisioning server



2. Configuration & middleware are automatically installed



3. Device is ready to connect things to the Cloud!

