Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

OPTION

CloudGate

Smart wireless **M2M SOLUTIONS**

• Transportation & Logistics
• Industrial & Remote Asset Monitoring
• Smart Cities & Environmental Monitoring
• Healthcare

CloudGate models

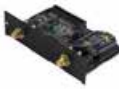|		LTE WW	3G Americas	3G EMEA	3G JP/APAC	Ethernet
WWAN Modem **LTE**	Supported frequency bands	700/800/850/900/1800/1900/ 2100/2600/AWS (B 1-5, 7, 8, 13, 17, 18, 19, 20)	Not applicable			
	Max. connectivity speeds	100Mbps down, 50Mbps up (Cat3) Theoretical LTE data rates				
WWAN Modem **3G/2G**	Supported frequency bands	• UMTS/HSDPA/HSUPA/HSPA+: 850/900/1900/2100 MHz and AWS band (1700/2100 MHz) (B 1, 2, 4, 5, 8) • 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, 2, 4, 5, 6, 8) • CDMA 1xRTT/EV-DO rev0/ EV-DO revA: 800/1900 (BC0, BC1) • 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, 2, 4, 5, 6, 8) • GSM/GPRS/EDGE: 850/900/1800/1900 MHz	• UMTS/HSDPA/HSUPA/HSPA+: 800-850/900/ 1900/2100 MHz (B1, 2, 5, 6, 8) • GSM/GPRS/EDGE: 850/900/1800/1900 MHz	Not included
	Max. connectivity speeds	• DC-HSPA+: 42 Mbps (Cat 24) down 5.76 (Cat 6) up	• 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+: 14.4 Mbps (Cat 10) down	• HSPA+: 14.4 Mbps (Cat 10) down 5.76 (Cat 6) up	Not included
	Rx Diversity	Simultaneous Equalization and Rx Diversity on all bands	Simultaneous Equalization and Rx Diversity on all bands	Simultaneous Equalization and Rx Diversity on all bands	Simultaneous Equalization and Rx Diversity on all bands	Not included
WWAN Antenna	Antenna connector	• 1 x SMA: WWAN Main • 1 x SMA: WWAN Div/GPS	• 1 x SMA: WWAN Main • 1 x SMA: WWAN Div/GPS	• 1 x SMA: WWAN Main • 1 x SMA: WWAN Div/GPS	• 1 x SMA: WWAN Main • 1 x SMA: WWAN Div/GPS	Not included
GPS		High sensitivity A-GPS /A-GLONASS receiver (SUPL 1.0 & SUPL 2.0)	Standalone GPS, Assisted GPS, gps OneXTRA™ Wideband GPS processing (20MHz) for improved measurement accuracy	Standalone GPS, Assisted GPS, gps OneXTRA™ Wideband GPS processing (20MHz) for improved measurement accuracy	Standalone GPS, Assisted GPS Wideband GPS processing (20MHz) for improved measurement accuracy	Not included
SIM	USIM/SIM connection – Class B and Class C	✔	✔	✔	✔	Not applicable
CPU		ARM926EJ-S @ 450MHz Memory avail. for customer apps Up to 130MB developer image size 20MB R/W flash shared with system 85MB free RAM 4MB Configuration data	ARM926EJ-S @ 450MHz Memory avail. for customer apps 30MB R/O flash for executables 20MB R/W flash shared with system 40MB free RAM 4MB Configuration data	ARM926EJ-S @ 450MHz Memory avail. for customer apps 30MB R/O flash for executables 20MB R/W flash shared with system 40MB free RAM 4MB Configuration data	ARM926EJ-S @ 450MHz Memory avail. for customer apps 30MB R/O flash for executables 20MB R/W flash shared with system 40MB free RAM 4MB Configuration data	ARM926EJ-S @ 450MHz Memory avail. for customer apps 30MB R/O flash for executables 20MB R/W flash shared with system 40MB free RAM 4MB Configuration data
Ethernet (IEEE 802.3)	10/100Mb/s RJ45 Connector	✔	✔	✔	✔	✔
microSD card reader		✔	Not included	Not included	Not included	Not included
Power control	Timed Wakeup	✔	Not included	Not included	Not included	Not included
Power	DC Power in, 9-33 V DC	✔	✔	✔	✔	✔
	Connector type Micro-Fit, Dual row, 4 circuits	✔	✔	✔	✔	✔
Case	Dimension (115 x 105 x 45mm)	✔	✔	✔	✔	✔
	Weight	304g	294g	294g	294g	282g
	Mounting - Bulkhead - 4x M4 holes - DINrail - with adapter	✔	✔	✔	✔	✔
Environ-mentals	Operating temperature	-30°C to +70°C	-30°C to +70°C	-30°C to +70°C	-30°C to +70°C	-30°C to +70°C
	Storage temperature	-40°C to +70°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
	Humidity operational.: 5% - 95%	5% - 95%	5% - 95%	5% - 95%	5% - 95%	5% - 95%
Certifications		CE, FCC, IC, PTCRB, E-mark, EN50155, AT&T, T-Mobile, Verizon, Latam	FCC, IC, PTCRB, IFETEL AT&T, T-Mobile, Sprint, Verizon, Bell Mobility, Telus, Aeris, Telcel, Entel, US Cellular, Latam	CE, E-mark, RCM	JATE, Telec Softbank, NTT docomo	CE, FCC, IC
Std. compliance	ROHS, Reach	✔	✔	✔	✔	✔
CloudGate Universe	Device can be configured OTA using CloudGate Universe	✔	✔	✔	✔	✔
Expansion cards	2 x expansion slots for adding cards: WLAN expansion card, Low cost serial card, Industrial serial card, Ethernet switch, Telematics card	✔	✔	✔	✔	✔
Developers	Support CloudGate development kit: Developer board, Breadboard, SDK, HDK	✔	✔	✔	✔	✔
In the box	All other accessories (i.e. power cable, antennas etc.) sold seperately	CloudGate + Quickstart Guide	CloudGate + Quickstart Guide	CloudGate + Quickstart Guide	CloudGate + Quickstart Guide	CloudGate + Quickstart Guide
Product Code		CG 0114-11987	CG 0192-11897	CG 0112-11938	CG 0122-11978	CG 0102-11955

Expansion Cards

Wireless cards

WLAN CG 2101-11921

- 802.11 a/b/g/n
- Simultaneous client and access point mode (10 users)
- Failover to Wireless LAN client for WAN connectivity
- Dual SSID

WLAN access point CG 2102-11994

- 802.11 a/b/g/n
- Access point, up to 32 simultaneous users

XBee/Bluetooth 1008826

- XBee or XBee Pro compliant
- Bluetooth LE option available

Ethernet cards

4-port Ethernet

- 4 port 10/100 Base-T, μSD card CG 1104-11936
  or
- 4 port 10/100 Base-T, μSD card with 2 ports Class 4 PoE or 4 ports up to Class 3 Power Over Ethernet (PoE) to allow you to power external devices. (requires special power supply) CG 1103-11936 with PoE

1-port Ethernet CG 1109-11991

- 1 port 10/100 Base-T, μSD card

Serial cards

Low cost serial CG 1101-11919

- One RS-232 serial port. 921.6 Kbaud maximum speed

Industrial serial CG 1102-11920

- One RS-232 serial port. 921.6 Kbaud maximum speed
- One 2KV isolated RS-485 serial port. 921.6 Kbaud maximum speed, Full duplex or half duplex, 2 wire or 4 wire. Switchable termination.

Dual serial 1008828

- Two RS-232 serial ports, 921.6 Kbaud max. speed
- One USB type A Host port

Specialty cards

Telematics CG 1106-11957, CG 5106-11983 with I/O expander, CG 5106-11984 with CAN I/O expander

- Adds flexible I/O and connectivity for industrial telematics applications to CloudGate
- Built in 3 axis accelerometer for movement detection and other applications
- Additional SIM card slot for backup or roaming SIM
- Built in microcontroller offloads all I/O from CloudGate
- Breakout card available for developers

nanoWiPOM 1008825

- Two RS-232 ports, and one RS-485 port as MODBUS master or slave
- Two Analog Inputs, selectable as 4-20mA, 0-5V or 0-10V
- Four Digital Inputs, Two Digital Outputs (High current)

KNX CG 1110-12012 (CG 5112-12023 with RS485 expander)

- KNX Twisted Pair TP1 interface and 80mA DPSU
- On board Real Time Clock and μSD socket
- USB connector and I/O expander for additional interfacing (2nd KNX TP1 or RS485)
- Built-in microcontroller offloads all I/O from CloudGate

Development cards

Developer CG 1105-11937
for software developer

- Extended format card with headers for all interfaces
- Includes headers for access to USB, USB on the go, RS-232, I2C, SPI/SD and GPIO lines.
- On board temperature sensor, relay, SD card slot and RS232 serial port

Breadboard CG 1108-11980
for hardware developer

- Ideal for prototyping your own expansion card
- Supports 3 types of connections:
  – All signals on the back connector can be tapped off on breadboard area near this connector
  – 2.54mm pitch components can be soldered on main breadboard area
  – 3.5mm pitch connectors can be soldered on front two rows to provide a more reliable and longterm connection

SDK + HDK

Accessories

Power Supply

- Standard 9-33VDC power supply
- Output voltage 12V DC
- Max output current 1A
- Number of pins: 4
- Molex Micro-Fit 3.0 connector (MX-43025-0400)
- Can also be delivered as a DC power cable with Micro-Fit connector (3m)

3G WWAN Antenna

- 800-2200MHz for 3G (GSM or CDMA)
- SMA male connector
- Rotatable hinge design
- 3" length
- Recommended: Taoglas TG.09.0113

4G WWAN/GPS Antenna

- 698-2690 MHz for 2G/3G/4G/GPS
- SMA male connector
- Hinged design
- 7" Length
- Recommended: Taoglas TG.10.0113

WLAN Antenna

- 2.4 and 5 GHz for WiFi
- RP-SMA male connector
- Hinged design
- 6" Length
- Recommended: Taoglas GW.59.3153

Torx T6 Screwdriver

- A Torx T6 screwdriver is needed when installing/removing an expansion card or SIM card

External antenna options also available

CloudGate UNIVERSE (http://cloudgate.option.com)

CONFIGURE ONE of your devices for a specific site.
CONFIGURE SOME of your devices for a particular application or customer.
CONFIGURE ALL of your devices to the same settings.

- Device and Radio Settings:
  – Auto Recovery Settings
  – APNs
  – Connection Monitoring Settings
  – Username/password, etc.
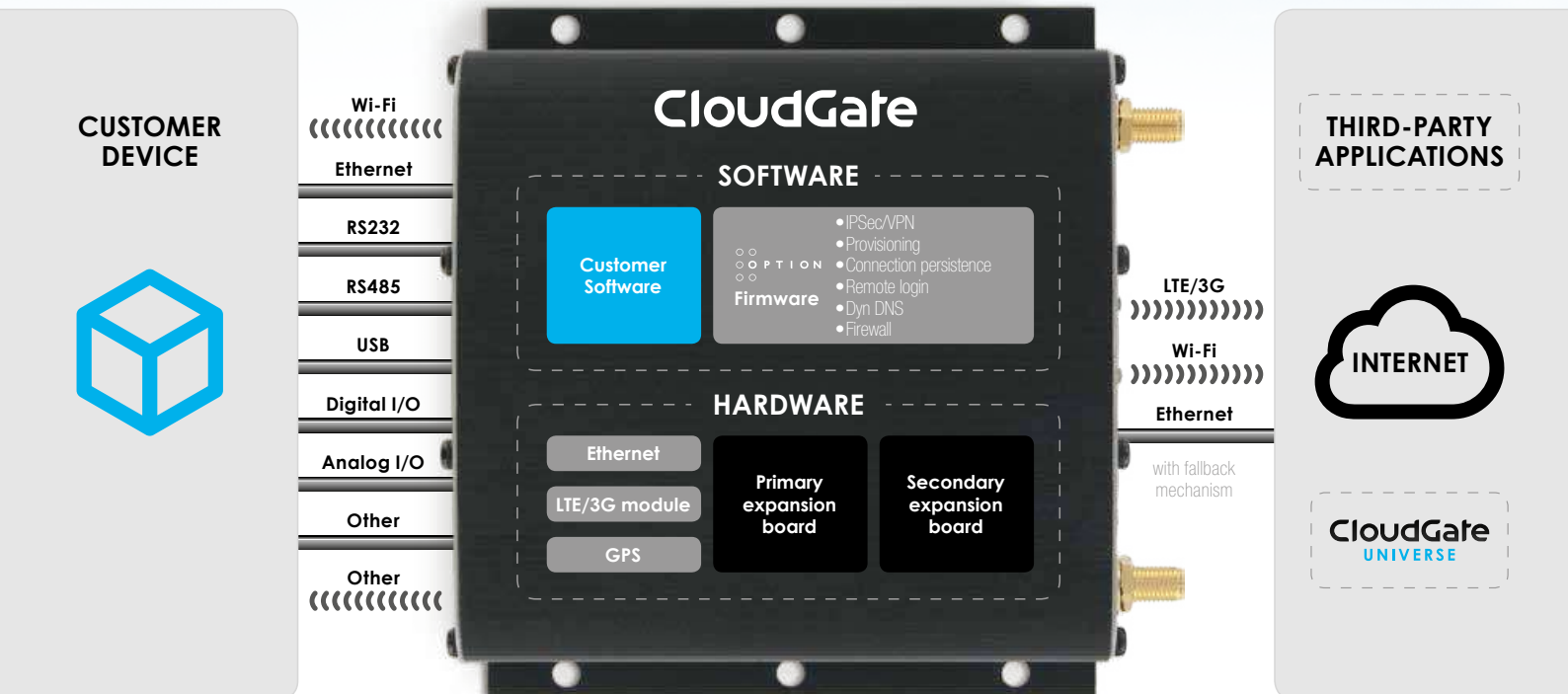- Drivers for expansion modules
- Applications

LuvitRED

- Visually configurable device agent for design and deployment of smart M2M Solutions
- Easy-to-use graphical, "drag and drop & visual wiring" configuration environment for CloudGate Gateway devices
  – Configuration with minimal programming
  – Application development in only minutes
  – Rapid application prototyping, testing and deployment
  – Supports a wide variety of sensors, aka "node sets"
  – Reduced risk/lower cost
  – Shorter sales cycles
  – Drives innovation by enabling "risk taking"

CloudGate is the carrier-approved M2M solution platform that delivers device connectivity, security and processing power for global M2M applications. Quick and cost-effective to implement, each device comes with CloudGate Universe, Option's cloud-based configuration and deployment platform, as well as the CloudGate SDK for rapid application development and the CloudGate HDK for prototyping custom expansion cards and LuvitRed, a visually configurable device agent with an easy-to-use graphical, "drag and drop &visual wiring" configuration environment for CloudGate Gateway devices. A pre-built library of software applications and a selection of modular hardware extensions means that CloudGate solutions deliver ease of deployment and maximum flexibility. Only Option delivers a complete M2M ecosystem.

CUSTOMER DEVICE

- Wi-Fi
- Ethernet
- RS232
- RS485
- USB
- Digital I/O
- Analog I/O
- Other
- Other

CloudGate

SOFTWARE

Customer Software

OPTION
Firmware
- IPSec/VPN
- Provisioning
- Connection persistence
- Remote login
- Dyn DNS
- Firewall

HARDWARE

- Ethernet
- LTE/3G module
- GPS

Primary expansion board

Secondary expansion board

THIRD-PARTY APPLICATIONS

- LTE/3G
- Wi-Fi
- Ethernet

with fallback mechanism

INTERNET

CloudGate
UNIVERSE

option.com

DataSheet_v1.3

1. Select a CloudGate model with expansion cards and/or accessories to suit your needs

2. Configure CloudGate Universe, the provisioning server

3. ...and start to CONNECT THINGS to the Cloud