

OPTION

# CloudGate He

LTE HELIUM LIGHT HOTSPOT



Industrial grade, highly customizable cellular LTE connectivity



Industry proven hardware



+6 years LoRaWAN expertise



External antenna connector for miles of superior wireless coverage to maximize \$HNT earnings



Ruggedized low power design



Ethernet & 4G connectivity  
Be the best in your hex

# OPTION

Highly customizable & flexible to integrate and deploy

## Benefits

- Worldwide LTE Cat 4 Programmable
- 20 LTE bands (EMEA, Americas, Asia) including TDD bands (China)
- LoRa multiregion 868 MHz & 9xx MHz
- Ruggedized design
- External antenna connector
- Superior wireless coverage

## Helium

Helium, "The People's Network", is the fastest growing worldwide cellular network, ever. With already over 500,000 hotspots deployed globally, whilst continue to grow with 1000's of additional hotspots daily, it is just a matter of months before it will become the world's first truly global coverage IoT network. CloudGate Helium offers best in class wireless coverage with its industry proven LoRaWAN expertise.



By deploying a CloudGate Helium in your home, office, farm or basically any type of elevated area, you can provide your area with miles of low-power network coverage for billions of devices and earn a new cryptocurrency, HNT. Be the best in your hex and start earning today!



LORAWAN FUNCTIONALITY	
Feature	Description
Radio protocol	• LoRaWAN
Baseband processor	• Semtech SX 1302 second-generation LoRa Core™ Digital Baseband Chip
Transceiver	• Dual SX1250 Tx/Rx front-end, providing a channel range up to 2MHz and up to -141 dBm sensitivity
LoRa Bandwidth	• 125 kHz LoRa reception with 8 x 8 channels LoRa® packet detectors, 8 x SF5-SF12 LoRa® demodulators and 8 x SF5-SF10 LoRa® demodulators
Regional variants	• For use in 868MHz or 902-928MHz mode. Separate model available for 433MHz.
Number of nodes per card	• ~1000 (assuming 30 seconds airtime per node per day)
Security	• 128-bit AES encryption (send/receive)
Antenna connector	• SMA RP (female)
Operating temp.	-30°C to +70°C
Humidity (operational)	5 to 95% RH, non-condensing
Storage temp.	-40°C to +85°C
Certifications	CE, FCC/ISED, LoRaWAN

Technical Specifications		
WWAN Modem LTE	Supported frequency bands	• LTE FDD: B1, B2, B3, B4, B5, B7, B8, B12, B13, B18, B19, B20, B26, B28 • TDD: 3B/39/40/41
	Max. connectivity speeds	• LTE DL 150 Mbps, UL50 Mbps
WWAN Antenna	Antenna connector	• 1 x SMA: WWAN Main • 1 x SMA: WWAN MIMO/Div/GPS
GPS		• Standalone GPS, Assisted GPS, GPS OneXTRA™ • Wideband GPS processing (20MHz) for improved measurement accuracy • Passive/active GPS antenna support
SIM	USIM/SIM connection – Class B and Class C	Micro-SIM (3FF)
CPU		i.MX280 (ARM926EJ-S @ 450 MHz) Memory available for customer apps 512 MB Flash (20 MB for data, 30 MB for application, 372 MB extra data partition)
Ethernet (IEEE 802.3)	10/100Mb/s RJ45 Connector	2 (LAN/WAN or LAN/LAN)
microSD card holder		on main PCB
Power control	Timed Wakeup	✓
	Ignition Sensing	✓
Battery	Optional	Li-Ion battery: optional last gasp function (up to 1h with limited functionality) Battery backup RTC (7 days)
Power input	9-33V DC	• DC input voltage: 9-33 V DC • Connector: Micro-Fit 3.0TM, Dual row, 4-position; DC, GND sensing input
Aluminium Case	Dimensions	115 x 106 x 45 mm 4.52 x 4.17 x 1.77 in
	Weight	285 g / 10.05 oz
	Mounting, Bulkhead, 6xM4 holes, DINrail with adapter	✓
	System status LED	✓
Environmental	Operating temperature	-30°C to +70°C / -22°F to 158°F
	Storage temperature	-40°C to +85°C / -40°F to 185°F
	Humidity	5% - 95%
Certifications		CE, FCC, PTCRB, ISED, AT&T, VZW, US Cellular, DeWi
Std. compliance	ROHS, Reach, WEEE	✓
CloudGate Universe	Device can be configured OTA using CloudGate Universe	✓
For developers	CloudGate development kit: developer board, breadboard, SDK, HDK	✓
Optional		• Battery

Product	PN
CloudGate LTE WW He	CG0124-12228