



## AVAILABLE MODEL

### MS-UG63-LTE

Mini 8-channel indoor LoRaWAN® gateway with Ethernet plus integrated 4G LTE Cat-1 cellular backhaul (GSM fallback) – drop-in for sites without a wired Internet drop.

## KEY FEATURES

- SX1302 8-channel concentrator – packet-forwards traffic from up to ~2,000 LoRaWAN® nodes per gateway with low power draw (typ. 1.3 W)
- 4G LTE Cat-1 cellular backhaul (Micro SIM) with GSM fallback – keeps blind-spot gateways online without Ethernet drops
- Disc-shaped, lightweight 158 g enclosure – desktop, wall, or ceiling mount in offices, restrooms, parking levels, basements
- Acts as a blind-fill gateway – pairs with UG56 / UG65 to extend LoRaWAN® coverage into shadow zones
- Compatible with the ATEK Cloud LNS, The Things Stack, ChirpStack, and AWS IoT Core for LoRaWAN
- Embedded network server ( $\leq 20$  devices) and MQTT API for compact standalone deployments

### Designed to Fill Coverage Gaps

Drop a UG63 into the basements, parking lots, and back corridors that the main gateway cannot reach. Power it with USB-C or a PoE splitter, fit a SIM if there is no Ethernet, and the gateway joins your existing LoRaWAN® fleet in minutes.

## AT A GLANCE

Capability	MS-UG63-LTE
Packet-forwarder capacity	~ 2,000 LoRaWAN® end devices
Embedded network server capacity	$\leq 20$ LoRaWAN® end devices
Concentrator	Semtech SX1302 – 8 channels (half-duplex)
Backhaul options	Ethernet · 4G LTE Cat-1 / GSM (optional)
Wi-Fi 2.4 GHz	AP mode for setup only (not a backhaul)
Built-in LoRaWAN® network server	✓ (small deployments)
MQTT(s) / HTTP(s) integration	✓
Power options	USB-C 5 V / 2 A · DC 5–12 V · 802.3af PoE (via splitter)

## TECHNICAL SPECIFICATIONS

Parameter	Specification
LORAWAN®	
Concentrator	Semtech SX1302, 8 channels (half-duplex)
Frequency Bands	EU868, US915, AU915
Tx Power	27 dBm max
Sensitivity	-140 dBm @ 292 bps
Antenna	1 × external LoRaWAN® antenna
Embedded NS Protocol	LoRaWAN® v1.0.3 – Class A / C ( $\leq 20$ end devices)
Packet Forwarder Capacity	~ 2,000 end devices (depending on uplink/downlink frequency)
CELLULAR (OPTIONAL)	
Network	4G LTE Cat-1 with GSM fallback
Tx Power	LTE: Class 3 (23 dBm $\pm$ 2 dB)
SIM Slot	1 × Micro SIM (3FF)
Antenna	1 × external LTE antenna

## LORAWAN FREQUENCY BANDS

Region	Band
Europe	EU868
North America	US915
South America	AU915

## CELLULAR LTE BANDS

Variant	Bands
L09NA — North America	LTE-FDD B2 / 4 / 5 / 12 / 13 / 66
L08GL — Global (excl. NA)	LTE-FDD B1/2/3/4/5/7/8/12/13/17/18/19/20/25/26/28/66; LTE-TDD B34/38/39/40/41; GSM B2/3/5/8

## NETWORK &amp; SECURITY

Parameter	Specification
Network protocols	HTTP, HTTPS, MQTT
VPN	OpenVPN client
Reliability	Link backup (Ethernet ↔ Cellular)
Diagnostics	Ping
Configuration	Web GUI, MQTT API, ATEK platform OTA management

## ORDERING INFORMATION

ATEK Part Number	Description
MS-UG63-LTE	Mini LoRaWAN® gateway with Ethernet plus integrated 4G LTE Cat-1 cellular backhaul — LoRaWAN® frequency band and cellular module variant (L09NA for North America, L08GL elsewhere) specified at order

Each unit ships with 2 × wall-mount kits, USB-C cable (1 m) and 5 V / 2 A power adapter, \*\*or\*\* a PoE splitter (one of the two as standard accessory; the other available as an option). LTE antenna kit included when the cellular option is configured. Contact ATEK for additional accessories or customisation.

## EMBEDDED NETWORK SERVER &amp; INTEGRATIONS

- Built-in LoRaWAN® v1.0.3 network server — Class A / C, up to 20 end devices for compact standalone sites
- Compatible with the ATEK Cloud LNS, The Things Stack, ChirpStack, and AWS IoT Core for LoRaWAN
- Northbound API: MQTT for direct integration with brokers and IoT platforms
- Packet filter and data retransmission to keep payload delivery reliable on intermittent backhails
- Acts as a blind-fill node for an existing UG56 / UG65 fleet — extends coverage without re-architecting the network server
- Web GUI, MQTT API, and ATEK-driven OTA firmware management

## ATEK PLATFORM INTEGRATION

- Zero-touch provisioning — gateway DevEUI is pre-linked to your account; comes online automatically
- Real-time gateway status, RSSI/SNR per device, and uplink/downlink counters in the ATEK dashboard
- Centralized OTA updates and configuration push across the entire gateway fleet
- Event alarms — power on/off, network up/down, cellular signal — via email, SMS, webhook
- Audit-grade logging — every config change and remote action stored in tamper-evident audit logs
- GxP / 21 CFR Part 11 aligned — user-level audit trails, e-signature, ALCOA+ data integrity

**Choose UG63 vs UG56:** use UG63 for small standalone sites, blind-spot coverage, and budget-sensitive deployments. Use UG56 when you need full industrial backhaul (Cat-4 LTE, full VPN suite, BACnet/IP, Modbus TCP) and an on-board network server for hundreds of devices.