

# freeRAN™

## LTE Base Station

### About

freeRAN™ integrates a full software 3GPP Release 15 Radio Access Network (RAN) optimized for standalone 4G LTE-M in 3MHz bandwidth in the U.S. unlicensed 902-928 MHz frequencies.

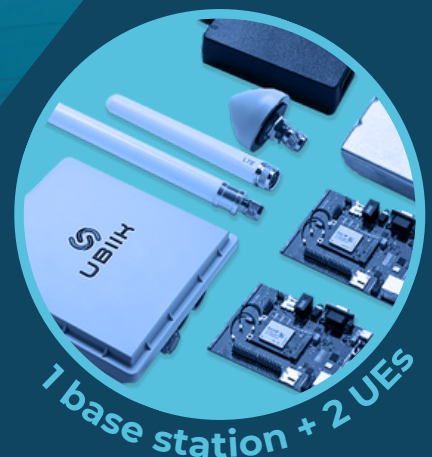
# 4G LTE-M

## License-*free*

FCC Certified

# 902-928 MHz FDD

*freeRAN™* kit  
is available NOW!

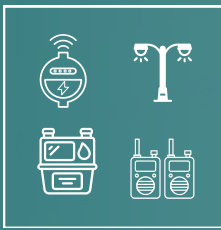


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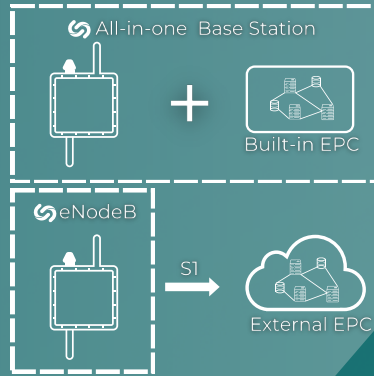
# Ubiik Private LTE Network Solutions

## End Terminals

(Compatible with all 4G Cat-M1 Band 8 devices)



LTE-M



## Features of Ubiik freeRAN™

- Software Defined Radio (SDR)
- Integrated Evolved Packet Core (EPC) and Home Subscriber Server (HSS)
- S1 interface for external EPC, S6a interface for external HSS
- eDRX/PSM
- Early Data Transmission (R15)
- RLC Unacknowledged Mode (R15)

## Specifications

Performance	3GPP Release 15 LTE Cat-M1 SDR (quad-core ARM Cortex A53 embedded Linux Ubuntu)
Bandwidth	LTE Cat-M1 3MHz (FDD)
Memory	8GB eMMC flash and 2GB DDR4 RAM
Frequency bands	902-928MHz (FCC Part 15.247)
Tx Power	30dBm maximum
Timing/ frequency acquisition	GPS
Antenna peak gain	2.65 dBi
Backhaul	Ethernet (10/100/1000 Mbps) or LTE Cat-1
Indicators	1 x System power 1 x Network connection status (Ethernet or LTE Cat-1)
Interfaces	2 x external antennas for GPS and LTE Cat-M1 1 x external antenna for LTE Cat-1 backhaul 1 x Gigabit Ethernet port, LAN/WAN 1 x Reset button 1 x USIM slot 1 x Micro SD slot 1 x PoE++
Physical and environmental	Dimensions: 10" x 10" x 3.28" Operating temperature: -40°F to 131°F (-40°C to 55°C) Storage temperature: -40°F to 158°F (-40°C to 70°C) Operating humidity: 5% to 90% non-condensing Ingress protection rating: IP67