

## Introduction

The **BOBBER 500** is a radio agnostic indoor network core (aka EPC). It operates in both the **CBRS Spectrum** and the **LoRaWAN Network**, allowing rewards to be earned for offloading cellular data as well as performing Proof-of Coverage for the Helium mining protocol. This next-generation gateway seamlessly combines **5G**, **LTE**, and **IoT** functions into a single gateway for greater ease of use.

The small cell radio and LoRa antenna are all **plug-and-play**, allowing users to connect to the world through a device that sits right next to you! The gateway features an **industrial design** and fully automated production process to assure top quality. Our software is based on **Magma Access Gateway software** powered by **FreedomFi**.

## Product Comparison

Model	BOBBER 500	Others
Antenna	4dBi enhanced antenna provides wider network coverage	2dBi
Storage	64GB SSD SATA III faster and vibration-proof	16GB 2.5" HDD
Processor	Elkhart lake platform, 10nm ATOM process up to 3.0 GHz and benchmark +360% performance than Bay trail	Bay Trail platform

## Product Images



# Hardware Specifications

Model	Bobber 500	
Platform Configurations		
Processor	Quad-core Atom x6413e 3.0GHz	
RAM	SO-DIMM for DDR4-2666Mhz 4GB	
Storage	M.2 SATA III 64GB SSD	
Security	TPM 2.0	
Input Voltage	DC12V/5A	
3GPP Specifications		
3GPP Release	15 for LTE, 15 for 5G SA	
4G Core	MME, SGW, PGW, HSS-lite	
5G Core	AMF, SMF, UPF, UDM-lite	
Stateless	MME and S-GW allow for hitless service updates/restarts	
User Plan T-put	1Gbps	
Connected Users	>600	
QoS Control	3GPP standard Quality of Service Class Identifier (QCI)	
CUPS Support	native	
Handover	S1 & X2 handover	
Lora Specifications		
Lora Frequency Band	923MHZ/915MHZ/868MHZ/470MHZ	
LoRa Channel Plan	AS923/AU915/EU868/CN470	
Channel Capacity	8-channels uplink, 1-channel downlink	
LoRa Output Power	25dBm Maximum output power before antenna	
Interface		
WAN Port	1 Gigabit Ethernet (RJ45)	
LTE/5G Small cell or Wi-Fi Port	1 Gigabit Ethernet (RJ45)	
USB 3.0	2	
Event Button	1	
Antennas	LoRa: reverse polarity male SMA	
Power	DC Jack 5.5x2.5mm	
Physical Description		
Dimensions (L x W x H)	239.4mm*211mm * 51.75mm	
Chassis Type	Fanless	
IP Grade	IP30	
Color	Pantone 10389C	
Environmental		
Operating Temperature	0° to +60°C	
Storage Temperature	-40° to +85° C	
Relative Humidity	10% to 90%, non-condensing	