



THE FIELD REALITY

THE HUB

Buried wire faults. Unreachable pump houses. Controllers locked to one vendor's radio. Hours lost every season.

ArborGate G1

The Arbormated field hub builds a long-range wireless mesh for valve and sensor nodes, connects to the internet by Wi-Fi, Ethernet, or cellular, and controls pump VFDs over Modbus — with a relay to switch VFD supply when needed.

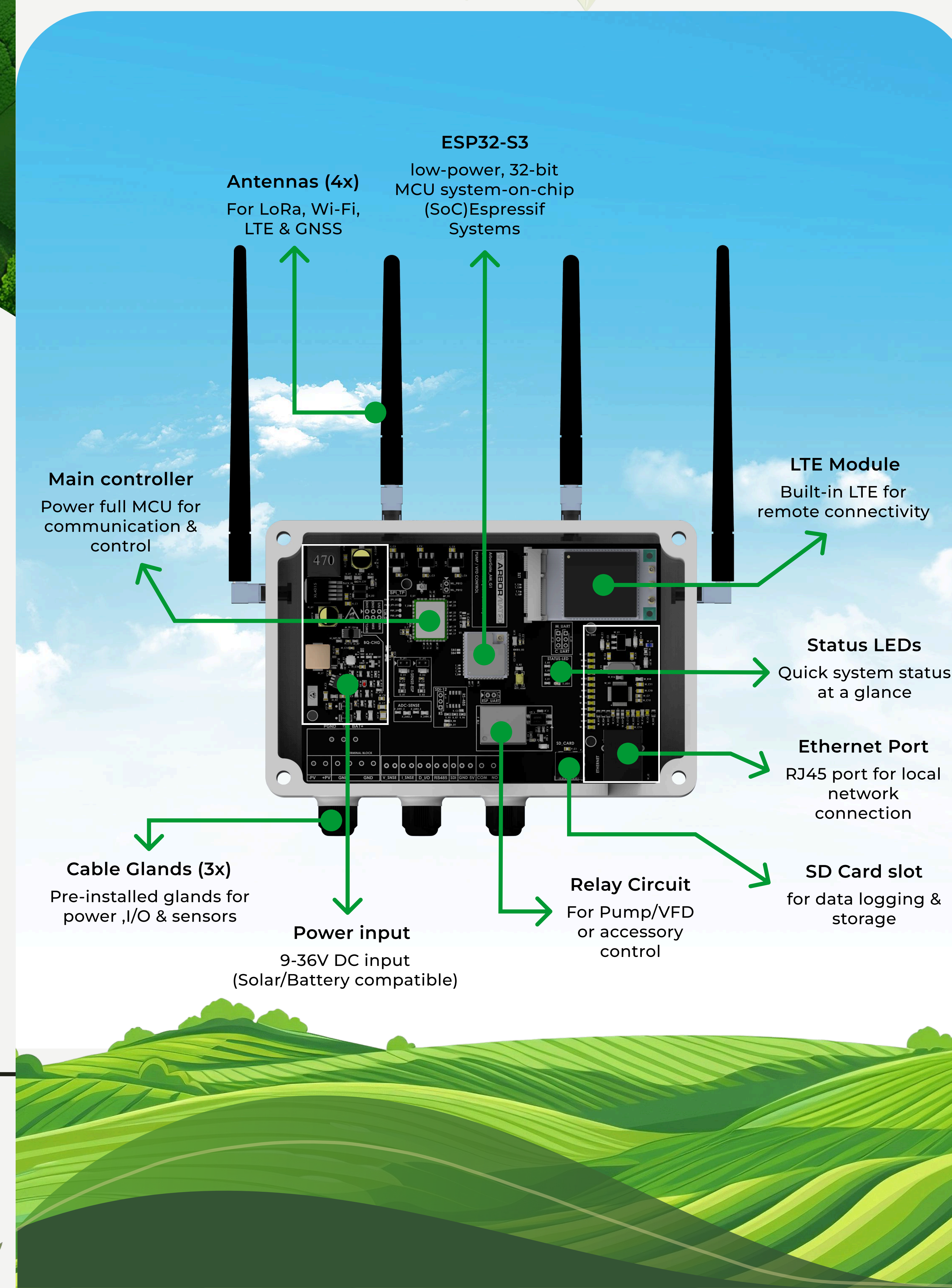
Deploy it as the center of ArborLink — from one block to a full ranch — with solar charging, a LiFePO4 battery pack, on-box status display, and QR commissioning.

One gateway. Whole-farm radio. Pump control built in.

CAPABILITIES

What ArborGate G1 does

- 5000+ nodes — long-range LoRa mesh hub
- Multi-path uplink — Wi-Fi, Bluetooth, Ethernet, LTE, GNSS
- Pump & VFD ready — RS485 Modbus + supply relay
- Solar-first — 40–60 W class with smart charging
- 12.8 VDC / 6500 mAh with Battery health monitoring
- SMA antennas — external connectors for field installs
- Fast deploy — QR setup + OTA firmware updates



SPECIFICATIONS

AM-G1 · ArborGate G1

CONNECTIVITY

Field network: Lora mesh hub · designed for 5000+ nodes

Local wireless: Bluetooth setup & diagnostics

Cloud / LAN: Wi-Fi · Ethernet (RJ45) · Cellular LTE

Positioning: GNSS location support

Antennas: External SMA connectors (field-replaceable)

INPUTS, OUTPUTS & PERIPHERALS

Pump / VFD: RS485 Modbus to drives & pump controllers

Supply control: Relay for VFD / pump supply enable

Data storage: Removable memory card for offline logs

Aux power: 5V & ground for small accessories

Expansion: Terminals for serial / GPIO-class add-ons

POWER & ENERGY

Solar: 12–24 V input · 40–60 W panel class · MPPT charging

Battery: 12.8 VDC / 6500 mAh with Battery health monitoring

Mains assist: Plug-in AC charging option

Runtime: Multi-day autonomy (duty & climate dependent)

ON-DEVICE INTERFACE

Display: OLED status screen

Controls: Navigation buttons · status LEDs

SETUP & SOFTWARE

Commissioning: QR / barcode guided setup

Updates: Over-the-air (OTA) firmware

Platform: Arbormated A.I.M · Web + Mobile

Solar · SMA antennas · LTE option · mast kit

Deploy the hub your field network deserves.