

AIKO[®]



AIKO[®]net

**LONG-RANGE IOT CONNECTIVITY TO MONITOR AND
CONTROL REMOTE INDUSTRIAL OPERATIONS.**

WHAT IS AIKONET?

AIKOnet is an industrial IoT connectivity platform designed to connect sensors, equipment, and assets in remote areas or locations without traditional coverage.

Its technology enables reliable data transmission, maintains two-way communication, and enables remote monitoring and control of industrial operations.



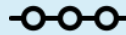
8 channels

Dynamically managed.

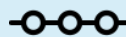


200+ radios per channel

Minimum capacity.



1.600+



nodes

Operating without network degradation.

AIKONET TAKES CONNECTIVITY TO THE LAST MILE

A three-pillar architecture designed to connect where others fail.

FIELD	EDGE	CONNECTIVITY
CLIENT RADIO Universal compatibility with industrial sensors (4–20 mA, RS-232, RS-485, CAN, I/O). Automatically adapts to connect to the best base station and enables node-to-node (P2P) communication. Receives data from the server and acts on field equipment. 	BASE STATIONS Edge intelligence nodes that coordinate the client radio network. Manage the network according to real-time business process requirements. 	CLOUD / INTERNET Connectivity via 4G/5G, satellite, internet, or fiber. Centralizes data for analytics and complete operational visibility. 

ADAPTIVE RADIO FREQUENCY

One radio, three modulations: automatic spectrum selection.



GFSK up to 10 km

High speed (up to 300 Kbps) for dense data meshes.



FLRC up to 30 km

Optimal balance between medium speed and regional coverage.



LoRa SF7 up to 70 km

High penetration for complex terrain.



LoRa SF9+ 90+ km

Ultra-long range for extreme remote infrastructure.

DYNAMIC ADJUSTMENT

The radio automatically switches between GFSK, FLRC, and LoRa levels (SF7–SF12) to find the optimal link according to distance.

**Reported distances correspond to 30 dB of power in line-of-sight conditions.*

INTELLIGENT COMMUNICATION

SYNC

Deterministic communication protocol based on TDMA that guarantees **zero collisions**.

FULL DUPLEX

Simultaneous transmission and reception for telemetry, remote control, and OTA updates.

DATALOGGING

Stores data during communication outages, with memory for years of records and secure deletion after confirmation.

LIFO

Upon reconnection, the most recent data is transmitted first to update the SCADA/HMI in real time.

Take your IoT infrastructure to the next level

Connect your operation without limits or blind spots.

AIKOnet enables you to extend connectivity to the most remote areas of your operation, providing an IoT infrastructure ready for telemetry, monitoring, and remote control.

WHY CHOOSE AIKONET?

- **Extreme range:** Up to 90+ km to connect IoT infrastructure in remote areas.
- **High density:** Up to 1,600+ nodes operating on the same network.
- **Zero collisions:** SYNC (TDMA) deterministic protocol for controlled and reliable transmission.
- **Full Duplex:** Simultaneous transmission and reception for telemetry, control, and OTA.
- **Adaptive connectivity:** Dynamic selection between GFSK, FLRC, and LoRa according to link conditions.
- **Operational continuity:** Datalogging, reconnection, and LIFO prioritization during communication interruptions.
- **Industrial integration:** 4–20 mA, RS-232, RS-485, CAN, and I/O — plug-and-play.
- **Heavy-Duty Hardware:** Electronics with native encryption.

HEAVY-DUTY HARDWARE

Electronics developed for demanding industrial environments, with thermal and electrical stability, high immunity, and native encryption.

LET'S TALK

TOGETHER, WE CAN MAKE YOUR
IDEA A REALITY.