



K-M00 SYSTEM

PCB + Communication + IoT Cloud Services

Modbus RS485 / UART / RS232 / Digital / Analog / Battery / Cloud

New OEM PCB with embedded communications and local processing that enables fast Industry 4.0 adoption

Networks



Quadband GPRS/NB-IoT/LTE Cat.M1



LoRaWAN™ 868/915Mhz



Wi-Fi b/g/n

Inputs – Outputs



Modbus RS485 (Master/Slave)



UART/RS232 (Master/Slave)



1AI 4-20mA + 2DI dry contact

Cloud Software



Kunak® Cloud web platform



Kunak® Watcher mobile app



Integration with Restful API

Various

- Low Cost (best performance/price ratio)
- 4Mb Internal Memory
- Back up battery optional
- 5 to 30Vdc power supply

APPLICATIONS

Simply connect your product to the Internet

- Machinery remote control & management
- Instant alerts
- Machinery consumables statistics
- Geolocalization and tracking
- Preventive maintenance (PHM)
- Impact alarms
- Machine data integration with ERP and Scadas
- Real Time Actuation
- Lifecycle management
- Any other you can imagine

The K-M00 system allows you to supervise the state of any electronic equipment, and to report one analogic and two digital inputs towards a web platform. The system will remotely modify configurations, actuate and be notified of any set event or alarm, in real time.

The powerful built-in connection with Kunak®Cloud platform - and the local processing - allows to quickly **connect your smart product to the Internet with no programming needed.**

The K-M00 is presented as an OEM board with its own power supply, micro USB, I/O and antenna; and can include a backup battery.

Interfaces

This modules exist in different versions: Modbus Master/Slave RS485, UART Slave Serial TTL/RS RS-232; completed with 1AI (4-20mA) and 2DI (dry contact). The configuration is done by USB or Bluetooth.

Communication Technology

After processing, the data (raw or means) is sent to Kunak® Cloud, using a robust, ultra low power consumption and secure protocol.

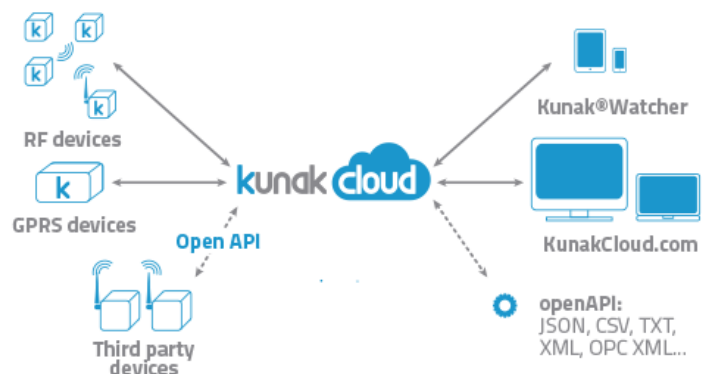
Communication options: GPRS, WiFi or LoRaWAN™ 868/915Mhz*.

*Kunak LoRaWAN™ Gateway available, with Kunak Cloud works as Network Server.

Kunak® System Architecture

Users can enjoy the Web control with data visualization, remote configurations, downloads, network management, alerts and reports.

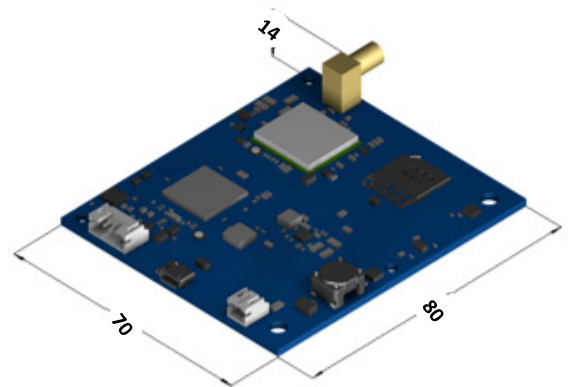
An open API allows integration with any ERPs or Scada.



TECHNICAL SPECIFICATIONS

GENERAL INFORMATION

Dimensions	70 x 80 X h: 14 mm.
Weight	< 100g.
Operating temperature	- 40°C to +85°C
Power Supply	5 to 30Vdc (2A peak in GPRS)
Power Backup (optional)	Rechargeable Li-ion Battery 1,5Ah
Average power consumption	< 1mA
Internal memory	4Mb
Compliance	CE, FCC, ETSI
Additional	USB 2.0, Bluetooth 3.0, Status LEDs



CONNECTIONS

Ref.	Version	Modes	CONNECTIONS (8 pin JST conector)			Features
K-M00-M	Modbus	Master/Slave	Modbus RS485	1AI	1DI	Local & remote read/write mode
K-M00-S	Serial	Master/Slave	UART/RS232	1AI	1DI/UART (GPS,...)	AT commands
K-M00-A	Analog	Master	1AI	1DI	1DI	Configurable thresholds, reading periods, calibrations, etc

All Kunak boards include: Signal level, power supply voltage, temperature sensor and 3 axis accelerometer.

AI = 4-20mA with 12bits 5V power supply - DI = dry contact, on/off state (4Q2016: frequency meter, totalizer...)

NETWORKS

Ref.	Version	Speed	Features
- G	GPRS Quad-Band Class 12	85.6 (kbit/s)	Geolocation with base stations SIM Included (optional)
- L	RF LoRaWAN 868/915Mh	300 bit/s to 10 Kbit/s	Fade margin: > 151dB Needs Kunak LoRa Gateway (Ethernet/GPRS)
- W	Wi-Fi b/g/n	54Mb/s	

Any other technology under request (Sigfox, LoRa 169Mhz, Zigbee, BLE...)

KUNAK CLOUD PLATFORM



Industrial IoT platform with advanced Web control, permits user management and a powerful secure open API.

Focus only on the final application, analysis and use of data, as we provide you with a powerful system - and the whole set of services - covering from your machine to the Cloud.



Real time graphic Dashboard



Accurate Geolocated Data (SIM or GPS)



Signal, temp. and power levels always at sight



Manage users and devices in groups



Change configurations remotely



Export Data and Create Reports in different formats



Open API



Email and SMS alarms



Include other external devices

Distributed by:

OTHER SERVICES

Antennas, batteries, cables
LoRa Gateway 868/915Mhz
1 - 100Mb Global SIMcard
Industrial IP67 metal enclosures
DIN rail adapter

Bespoke reports
Analytics
Sensors
Coverage studies
Mobile apps

