RAK IoT Enclosure Family

	Outdoor Gateway Enclosure		Unify Sensor Node Enclosure		
Ordering P/N	RAKBox-GW-0	RAKBox-GW-1	RAKBox-NT	RAKBox-NTS	RAKBox-NS
Material	Die-Cast Aluminum	Die-Cast Aluminum	Plastic	Plastic	
Dimensions	220 x 220 x 104mm	220 x 220 x 104mm	95 x 65 x 55mm	95 x 65 x 58mm	
IP Rating	IP67	IP67	IP67	IP67	
Waterproof	YES	YES	YES	YES	
Solar	NO	NO	NO	YES	
External Interface	2x N-type connectors	5x N-type connectors 1x PoE port 1x reserve port	2x ports for N-type connectors, circular connector or Vent valve	2x ports for N-type connectors, circular connector or Vent valve	
Board Support	RAK7249 DIY Gateway Boards RAK831 Concentrator Boards		96Boards form factor such as RAK5205, RAK5010, RAK5010-M		

Outdoor Gateway Enclosure

Industrial Die-Cast Aluminum Design

Designed to withstand the toughest of environments, this enclosure is made of Industrial Die-Cast Aluminum. It is rated IP67/NEMA-6, making it completely protected from dust ingress and submergible up to 1m in water.

Mechanical Characteristics

- Dimensions W x L x H: 220mm x 220mm x 104mm;
- Weight: approximately 70.54oz (2kg);
- Material thickness: 2mm;
- Pole and wall-mounting: 70~100mm pole diameter;
- Logo customization possibility;

Thermal Characteristics

- Enclosure seal operating temperature range: -60°C to 230°C;
- Heat Trap: +6.5°C under full sun exposure (~ 100,000 Lux);
- Temperature raise using a 5-10W heat source: +5.5°C;

Ports

For **RAKBox-GW-1**

- 5x N-Type Antenna connectors;
- 1x Ethernet port (PoE supported);
- 1x Reserved port;

For **RAKBox-GW-0**

- 2x N-Type Antenna connectors;

Package

- Enclosure together with connectors;
- Full assembly kit is included;

Board Support

- RAK7249 DIY Gateway Boards
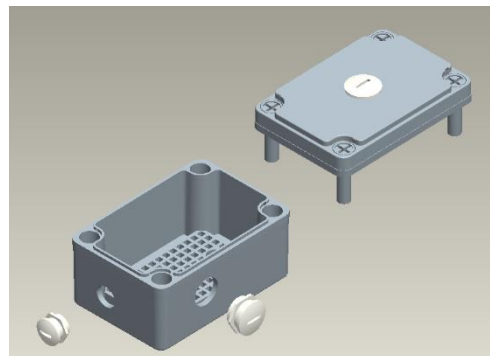- RAK831 Concentrator Boards

Sensor Node Enclosure

IoT Unify Sensor Node Enclosure Rated IP67 for outdoor Industrial IoT Application.

Lightweight Plastic Design

The enclosure is a small, lightweight, yet very solidly built, perfect for setups where space is limited. It is rated IP67/NEMA-6, making it completely protected from dust ingress and submergible up to 1m in water.

Mechanical Characteristics

- Dimensions W x L x H:: 95mm x 65mm x 55mm;
- Weight: approximately 7.05oz (200g);
- Material thickness: 3mm;
- Pole and wall-mounting: 60~75mm pole diameter;
- Logo customization possibility;
- Support for Logo printing and custom color painting;
- Support opening as required.

Ports

- 2x 16mm Ports supporting N-type connectors, Circular connector GX16;
  1x 12mm Ports supporting Vent valve, Circular connector GX12;

Package

- Enclosure together with port plugs;

Board Support

- 96Boards form factor board, such as RAK5205;
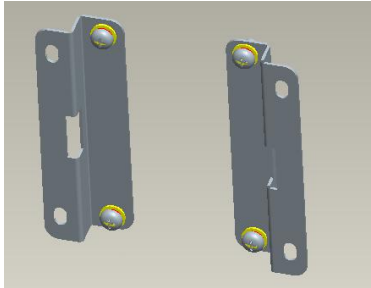- RAK5010/RAK5010-M;

Optional Accessories

- Supporting plate kits for 96Boards form factor board;
- Supporting plate kits for RAK5010 and RAK5010-M board;

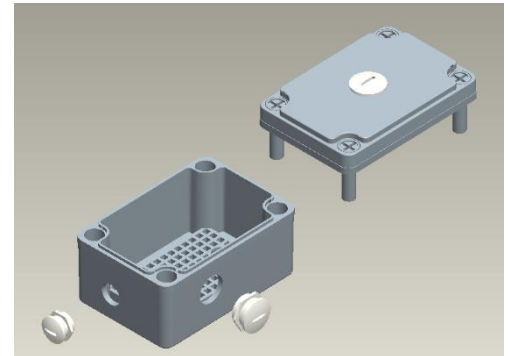▪ Mounting Kit for Wall Mounting or Pole Mounting;

Mounting Kit

Sensor Node Enclosure with Solar Panel

IoT Unify Sensor Node Enclosure with Solar Panel Rated IP67 for outdoor Industrial IoT Application.

Lightweight Plastic Design

The enclosure is a small, lightweight, yet very solidly built, perfect

for setups where space is limited. It is rated IP67/NEMA-6, making

it completely protected from dust ingress and submergible up to 1m

in water. Includes top mounted solar power for battery charging.

Mechanical Characteristics

- Dimensions W x L x H: 95mm x 65mm x 58mm;
- Weight: approximately 7.45oz (211.2g);
- Material thickness: 3mm;
- Pole and wall-mounting: 60~75mm pole diameter;
- Logo customization possibility;
- Support opening as required.

Solar Panel Characteristics

- The front side of enclosure with Solar Panel;
- Dimensions: 60mm x 60mm x 2mm;
- Voltage at nominal power: 5V ($\pm$10%);
- Current at nominal power: 80mA ($\pm$5%);
- Cell efficien: 17.5%;
- Work Environment:

   Temperature:-20-65°C, Humidity: 45-95%, UV resistance;
- The ZH1.5-2P connector, red cable is for positive pole, black cable is for negative pole;

Ports

- 1x 16mm Ports supporting N-type connectors, Circular connector GX16;

  1x 12mm Ports supporting Vent valve, Circular connector GX12;

Package

- Enclosure together with port plugs;

Board Support

- 96Boards form factor board, such as RAK5205;
- RAK5010/RAK5010-M;

Optional Accessories

- Supporting plate kit for 96Boards form factor board;
- Supporting plate kit for RAK5010/RAK5010-M board;
- Mounting Kit for Wall Mounting or Pole Mounting;

Mounting Kit