WeatherNode Documentation

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Types of WeatherNode weather monitoring nodes

PRODUCT CODE	DESCRIPTION
RHK-WS1	Nodes have two radios and external connectors for antennas. Power sources and sensors are configurable based on type and application.

**The node type is on the product sticker located on the bottom of the unit.*

Example:

- Product Code: WS1
- Date Created: MM/YY/DD
- FCC ID: RHK-WS1
- Serial:00000x

WeatherNode Operational Modes

1. **Gateway**

   Aggregates data from standard nodes and forwards it to a database over an Internet connection.

2. **Standard**

   Collects data from attached sensors and internal components and forwards it to a gateway node. Standard nodes collect and forward data to other standard nodes.

Identifying Types of Antennas

WeatherNode gateway and standard nodes can be equipped with different types of antennas combinations**.**

900 MHz External Omni
48mm 2.5 dBi Gain

900 MHz External Sector
580x125x50mm 11 dBi Gain

900 MHz External Omni
61in 6 dBi Gain

**Additionally, the antennas must have an RF exposure separation of 1-meter from a person. This antenna should be mounted only to poles or tower locations where a person will not come within 1-meter of said antenna.

WeatherNode Installation Guide

Professional Installation Only
WeatherNode weather monitoring nodes require professional installation. This product cannot be purchased by the general public, the intended use is specific to utility companies. Proper installation requires the units to be placed on utility poles or transmission towers in proximity to live, unprotected electrical lines. Only properly trained personnel, using proper equipment should attempt to install or service monitoring nodes.

WeatherNode weather monitoring nodes are designed to be mounted directly to a pole.

1) Unbox the unit.
2) Plan the mounting and installation to allow the node to be oriented towards the south with minimal shading. Attach the provided mount to a pole using the included hardware. See picture below.

3) Nodes are shipped with antennas attached. Each antenna is torqued and secured in place with Loctite, then sealed to prevent moisture intrusion prior to shipment. Attempts to remove supplied antennas or substitute other antennas will void the warranty, likely damage the unit and produce undesired performance.
4) Attach the node to the mounting bracket.
5) Upon detection of a strong light source or full sunlight, the node will wake up and signal its operational status with two beeps.
6) The node will automatically seek out other nodes and start reporting.

FCC Compliance & Installation Statement

This is a **Class B digital device**. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This device generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help**.**

Modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment under FCC rules.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Attention: This equipment is intended for outdoor use only.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.