The ORiNOCO Range Extender Antenna

The Lucent Technologies ORiNOCO Range Extender Antenna is an indoor antenna that enables you to increase the performance of your ORiNOCO network.

You can use the antenna in combination with the ORiNOCO PC Card, for example when the card is installed into:

- your desktop computer, or
- your AP-1000[1].

Use the Range Extender Antenna when the integrated antennas of the PC Card are concealed or shielded, for example:

- when your ORiNOCO device is placed inside a cabinet or closet, or mounted underneath a desk.
- when the radio signal of your ORiNOCO card is obstructed by objects such as thick stacks of books, file cabinets or other office equipment.

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1. Formerly identified as the WavePOINT-II AP.

Installation

1. Carefully remove the ORiNOCO Range Extender Antenna from the packaging.
2. Identify the optimal mounting location for the antenna.

➡ **NOTE:**
Allow the cable to bend naturally. It is recommended that you place the antenna no more than one meter from the PC Card to avoid excessive strain to the cable and connector.

3. Remove the protective cap from the external antenna connector on your ORiNOCO PC Card.

4. Insert the cable connector into the external antenna connector on your PC Card. Press gently until the cable connector clicks into place.
   If you do not hear or feel a click, carefully maneuver the connector until it clicks into position
5. Place the antenna in the location identified in Step 2.
6. Secure the antenna cable by using the three plastic cable clamps (included with the antenna) to prevent any undo strain on the cable.
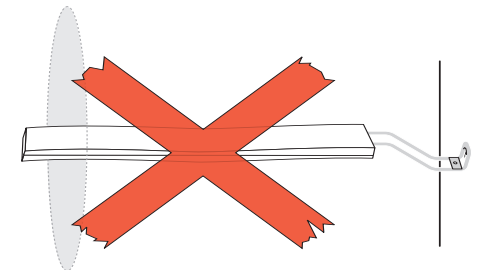
Antenna Placement

The ORiNOCO Range Extender Antenna performs best in an open environment with as few obstructions as possible.

The radio pattern of the antenna has a 'pancake-shape', allowing for the best possible performance when mounted 'upright' as described in this flyer.

Performance of the wireless signal can be significantly impaired when you mount the antenna in close proximity to metal surfaces and, to a lesser extent, near concrete walls, thick masonry walls or other solid, high-density materials.

To ensure optimal performance:

- Place the antenna in a central location and as high as practical relative to the wireless station(s) in the vicinity.
- Avoid placement where the antenna may be concealed by other objects such as thick stacks of books, cabinets or other office equipment.
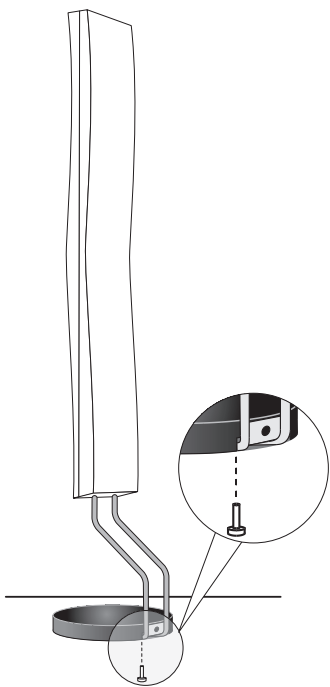- Mount the antenna vertically.

➡ **NOTE:**
Do not mount the antenna in a horizontal position, unless you intend to create a vertical coverage area that will be as 'high' as possible, for example in a stairway or shaft.

Standard Placement

Standard placement for the ORiNOCO External Antenna is on a stable, flat surface such as a desktop, or on top of a file cabinet. This type of placement is most common when using the antenna in combination with desktop computers.
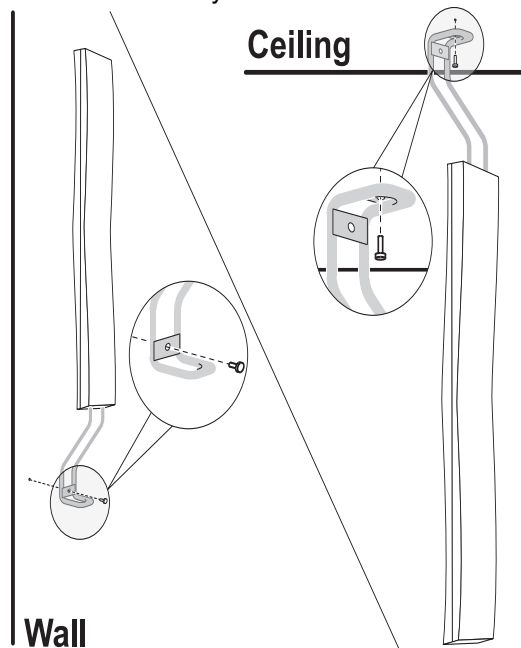

⚠ CAUTION:
The antenna base is made of synthetic materials, and may cause a chemical reaction if placed on a light-colored, coated surface. This chemical reaction may cause discoloration of the surface. Attempting to remove the discoloration may be impossible without further discoloring or possibly damaging the coated surface.

Alternative Placement

The ORiNOCO Range Extender Antenna can also be mounted on a wall or ceiling. This type of placement is typical when using the ORiNOCO Range Extender Antenna in combination with your AP-1000.

Ceiling

Wall

To mount the antenna on the wall or ceiling:

1. Remove the base from the antenna
2. Secure the antenna to the wall or ceiling as pictured above, using the plug and screw provided.

⇒ NOTE:
Concealing the antenna behind thick stacks of books, cabinets or other office equipment will affect the wireless performance of your ORiNOCO device.

Specifications

Dimensions

HxWxD	230 x 25 x 8 mm
Base Diameter	70 mm
Weight (incl. base)	150 g
Cable Length	1.5 m (approx.)
Connector	Proprietary (FCC compliant)

Environmental Conditions

	Temp °C	Humidity
Operating	0° to 55°	95%
Transit*	-40° to 60°	15% to 95%
Storage*	-10° to 60°	10% to 90%

* no condensation allowed

Radio Characteristics

Frequency	2400 to 2500 MHz	
Antenna Gain[1]	2.5 dBi	
Range Increase[2]	Open Office	Semi-Open
	50% (100%)	15% (30%)

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1. This number includes loss from the antenna cable and connector assembly.
2. The range of ORiNOCO products may vary according to the physical environment where the product is used. The performance increase is calculated as a proportional increase of the range as specified for ORiNOCO P CCard in typical office environments:
   - In 'Open Office' environments antennas can "see" each other, i.e. there are no physical obstructions between the antennas.
   - In 'Semi-open Office' environments, work space is divided by shoulder-height, hollow wall elements; antennas are at desktop level.

The range increase values listed between brackets apply to situations where the Range Extender Antenna is installed on both ends of a wireless link.

⚠ CAUTION:
The radiated output power of the ORiNOCO PC Card and Range Extender Antenna is far below the FCC radio frequency exposure limits. Nevertheless shall the antenna be mounted in such a manner as to minimize the potential for human contact during normal operation.