



Technical Note

# **WipLL SPRL Outdoor Unit**

Wireless IP-Based Local Loop System

## **Description for ATCB Testing**

Connecting the World with Wireless Access Solutions

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## 1. Purpose of this Document

This document describes Airspan's WipLL SPRL device. It emphasizes the similarity between the SPRL and the standard SPR device; the only difference being the chassis dimensions and integrated internal antenna.

## 2. Overview

The SPRL is an outdoor unit (ODU), which is installed at the subscriber's premises (i.e., CPE equipment). The SPRL is a radio transceiver that transmits and receives traffic to and from the Base Station (i.e., BSR), respectively.

The SPRL provides subscribers with "always-on" Internet, high-speed data-only, or data and voice (VoIP) services. Each SPRL provides an access capacity of up to 4 Mbps. For VoIP, the subscriber site includes a third-party residential gateway (RGW), which connects to the SDA.

The SPRL operates in the **900 MHz** frequency band, providing an 8-dBi-antenna gain with a 60-degree coverage.

The SPRL is configured with a unique BSR reference number, preventing the SPRL from relocating to another subscriber premises without authorization.

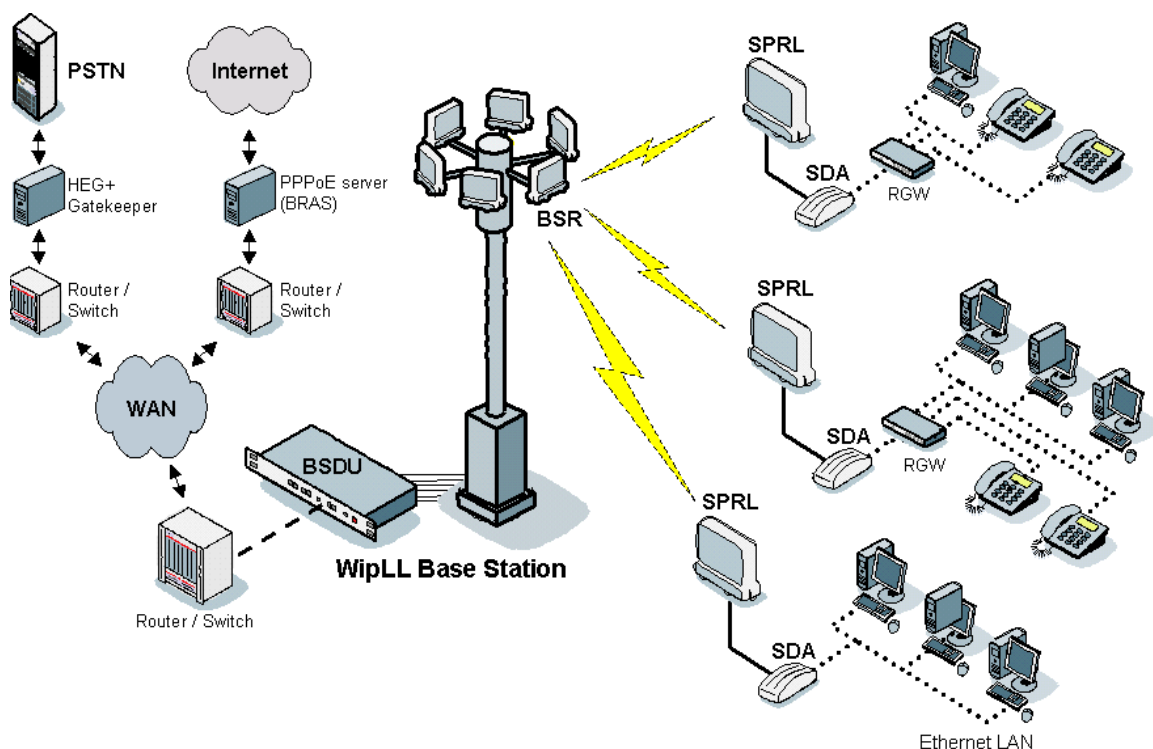


Figure 2-1: SPRL-BSR radio link providing data and voice

### 3. Physical Dimensions

The SPRL (SPR large) and the standard SPR have identical software and functionality. The only difference is that the SPRL has a larger chassis, providing space for fitting a larger internal antenna. **In fact the SPRL chassis is identical to the BSR, containing the same PCB components and having the same dimensions.**

**Table 3-1: SPRL physical dimensions**

Parameter	Value	Comment
Height	400 mm (15.74 inches)	Excluding mounting kit
Width	317 mm (12.48 inches)	
Depth	65.5 mm (2.57 inches)	
Weight	4.7 kg	

### 4. Ports and Interfaces

The SPRL provides the following ports and interfaces:

- **15-pin D-type** providing the following interfaces:
  - **Ethernet (10BaseT)** with SDA
  - **Power** supplied by SDA
- **Serial (RS-232)** for local serial initial configuration during installation using WipConfig running on a PC

The SPRL interfaces with the subscriber's network (LAN) through Airspan's WipLL SDA hub/switch. The SPRL connects to the SDA by a standard CAT-5 cable, which connects the SPRL's 15-pin D-type port to the SDA's 15-pin D-type port.