Technical Note

WipLL SPRL Outdoor Unit
Wireless IP-Based Local Loop System

Description
for
ATCB Testing

Revision Record: SPRL		
Pub/ Rev	**Date**	**Update Description**
01	Feb-03	Airspan. Author: InterDoc
Publication No. 23020411-01		

Contents

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.
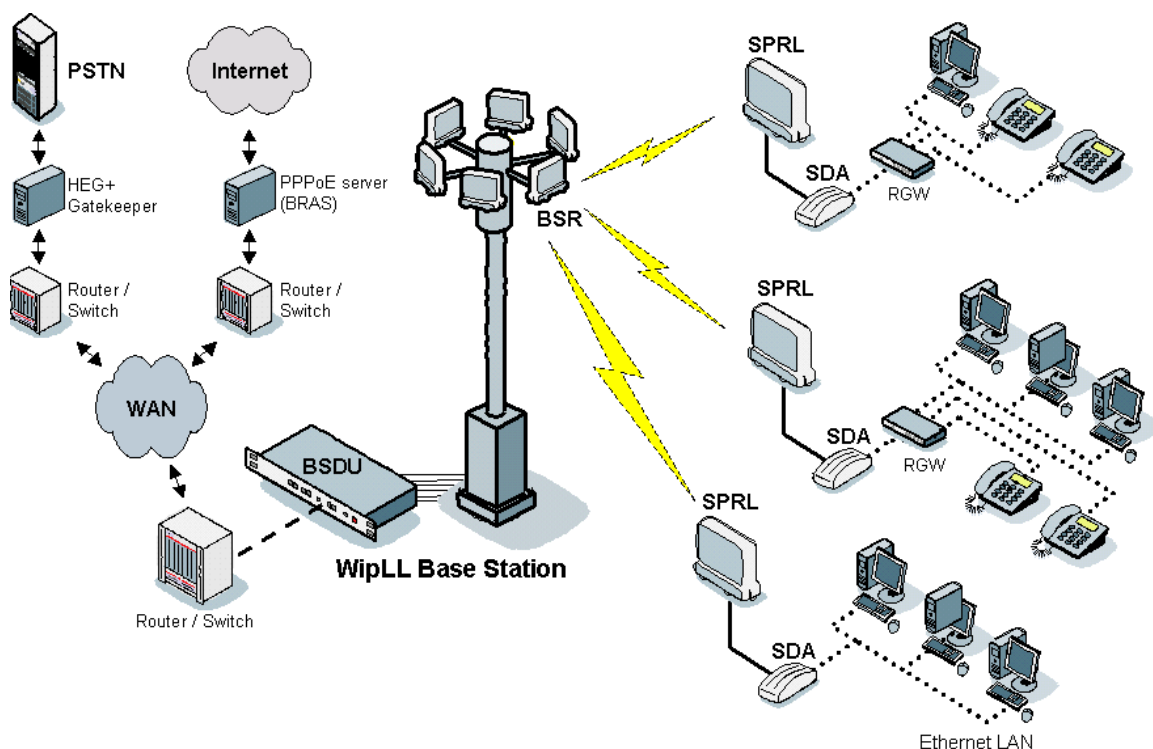

Figure 2-1: SPRL-BSR radio link providing data and voice

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.