

## Dualband PCB Antenna for AR5BCB-00032 CardBus Adapters

### General Description

The dualband PCB antenna is designed specifically for PCMCIA Card applications for operation in 2.4 & 5GHz bands. The antenna is a dualband monopole antenna with diversity printed onto the PC Card PCB.

### Features

- Operating frequencies: 2.4-2.4835 & 5.15 to 5.85 GHz for IEEE 802.11a/b/g applications
- Omni-directional pattern
- High gain: 2.0 dBi peak
- Designed for and tested with the AR5BCB-00032 PC Cards (Cardbus)

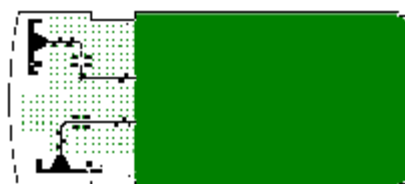
### Electrical

The antenna has been designed to meet the electrical characteristics shown in [Table 0-1](#).

*Table 0-1. Antenna Electrical Characteristics*

Parameter	Specification
Input VSWR	2:1 Max.
Max. gain	2.0 dBi
Polarization	Horizontal
Frequency range	2.4-2.4835 & 5.15 to 5.85 GHz

To match the antenna impedance with the trace impedance, the antenna feed is used with a substrate thickness of 10 mils and a substrate dielectric constant of 4.25 at 5 GHz.



*Figure 0-1. Dualband PCB Antenna on PCMCIA Card PCB Fab*



*Figure 0-2. Dualband PCB Antenna Layout*