

## **Technical Description**

### **FCC ID: PPD-AR5BCB-00022**

The Atheros AR5BCB-00022 is a high performance 802.11a/b/g WLAN client product intended for laptop applications. It operates in the 5.15-5.35 GHz, 5.725 - 5.850GHz, and 2.412-2.484GHz bands with a maximum Tx output power of 136mW. The product uses two symmetric integral antennas for diversity operation. Each has a 1dBi gain.

The AR5BCB-00022 design is based on an Atheros AR5001X three-chip solution. The three chips include:

AR5211: Multiprotocol MAC/baseband processor, and CardBus/PCI bus interface.

AR5111 Radio-on-a-Chip (RoC): An all-CMOS single-chip radio transceiver that includes a power amplifier, and integrated dual conversion filters to convert signals from 5 GHz to the baseband range for use by the AR5211. The AR5111 offers fully integrated transmitter, receiver, and frequency synthesizer functions; eliminating the need for external voltage controlled oscillators (VCOs) and surface acoustic wave (SAW) filters.

AR2111 Radio-on-a-Chip (RoC): An all-CMOS radio transceiver that, when combined with the AR5111, implements a 2.4GHz 802.11b/g radio solution. The AR2111 offers fully integrated transmitter, receiver, and frequency synthesizer functions. Like the AR5111, the AR2111 does not require external VCO's or SAW filters.