

Operational Description of 802.11 Transceiver

The 5803/5804 802.11 Transceiver is an 802.11b/g Wi-Fi module controlled by a host processor through SDIO interface. The module operation is handled through the WLAN SOC with specific tasks commanded by WLAN driver.

In operation, the 802.11 Transceiver connects to a host processor (such as a Texas Instruments TMS320DM6443), via the SDIO interface. The 802.11 Transceiver receives data packets via an 802.11g wireless connection and communicates these packets to the host processor. The host processor responds to these packets with a short packet, which contains an ACK (acknowledgment of the received packet) or a NAK (indicate the received packet was corrupted) or with a small amount of status information.

The Antenna is a muRata ANCM12G45SAA075 chip dielectric antenna with dimensions of 9 x 3 x 1 mm. It is a linear polarized antenna, tuned for a frequency of 2450 MHz +/- 50 MHz. It has a maximum VSWR of 2.5 at the tuned frequency and an impedance of 50 ohms.

The 5803 and 5804 boards are identical except for the length of the SDIO tail, which provides the digital interface to connect the 802.11 transceiver to a processor.