



## **SDC-CF10AG Operational Description**

This device is an SDC-CF10AG 802.11a/g Compact Flash Module with Antenna Connectors, which operates in the 2.4 GHz and 5 GHz portions of the radio frequency spectrum. The device is compliant with IEEE 802.11a, 802.11b and 802.11g standards using Direct Sequence Spread Spectrum and Orthogonal Frequency Division Multiplexing. The device supports all 802.11a, 802.11b and 802.11g data rates and automatically adjusts data rates and operational modes based on various environmental factors.

When operating on channels in the UNII-2 and UNII-2 Extended bands that are in the 5 GHz portion of the frequency spectrum and are subject to Dynamic Frequency Selection requirements, the SDC-CF10AG fully conforms to applicable regulatory requirements. In the event that specified types of radar are detected by the network infrastructure, the SDC-CF10AG will fully conform with commands from the infrastructure for radar avoidance.

The SDC-CF10AG is compliant with Compact Flash Type 2 mechanical specifications and interfaces to host devices via a 50-pin connector. The device is based on the Broadcom BCM4318e chip which is an integrated device providing a Media Access Controller (MAC), a Physical Layer Controller (PHY or baseband processor) and a 2.4 GHz transceiver. The SDC-CF10AG incorporates an external 5 GHz transceiver to allow for dual band operation. To maximize operational range, the SDC-CF10G incorporates 2.4 GHz and 5 GHz Power Amplifiers to increase transmit power to as much as 19 dBm (80 mW) and a 2.4 GHz Low Noise Amplifier to improve receiver sensitivity. The frequency stability for both 2.4 GHz (802.11b and 802.11g) and 5 GHz (802.11a) operation is +/- 20 ppm. The SDC-CF10G is powered by the host device into which it is installed and uses a DC to DC regulator. The SDC-CF10AG provides four antenna connectors (Hirose U.FL type) to support dual band transmit and receive diversity. Supported host device antenna types include dipole and printed circuit board antennas. Typical host devices include: (1) Portable Data Terminals (PDTs) and (2) Vehicle Mounted Terminals (VMTs).

For additional information please review the User's Guide which may be found at: <http://www.summitdatacom.com/documentation.htm>.