

Chapter 9 RF Exposure Information

Overview

This chapter contains information as to how the product was determined compliant with FCC Part 24 subsection 24.51

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9.1 RF Human Exposure - FDTD Analysis and SAR Testing

9.1.1 Applicable FCC Rules

FCC Subpart 24.51 - Applications for Type Approval of transmitters operating within the PCS region must determine that the equipment complies with IEEE C95.1-1991, "IEEE Standards for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz" as measured using methods specified in IEEE C95.3 - 1991, "Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave."

9.1.2 Test Configuration

RF human exposure configurations were setup, tested, and evaluated by the following independent laboratories:

Bioelectromagnetics Consulting, 18122 60th Pl. N.E., Kenmore, Washington 98028, with Dr. William Guy as primary consultant, responsible for carrying out the FDTD numerical analysis of the near fields, far fields, and SAR distributions from the Remote Unit antenna. As primary consultant, additional responsibilities included the evaluation and analysis of the SAR data from the independent SAR measurement laboratories.

Schmid & Partner Engineering AG (SPEAG), Staffelstrasse 8, 8045 Zurich, Switzerland, with Dr. Neils Kuster as the project director, who was responsible for carrying out measurements of the near and far fields from the Remote Unit antenna and SAR distribution in homogeneous phantom head and a flat rectangular tissue models exposed to the antenna fields.

SARTest Ltd., Oakfield Laboratories, Cudworth Lane, Newdigate, Surrey RH5 5DR. UK., with M.I. Manning as project director, who was responsible for carrying out measurements of the near and far fields from the Remote Unit antenna and SAR distribution in a heterogeneous phantom head model and a flat heterogeneous rectangular tissue model exposed to the antenna fields.

9.1.3 Test Results

Bioelectromagnetics Consulting compiled and correlated all data pertaining to FCC Subpart 24.51, and found the product to be compliant with this rule part.

