Hospira MedNet 802.11 a/b/g Wireless Upgrade Module, FCC ID: **STJ-20791**

Circuit Description

The EUT is an an upgrade module for *Hospira PlumA+ Infusion Systems* models: *20792-04-XX, 20679-04-XX and 12391-04-XX, 11971-04-XX*. Accordingly, the EUT consists of two models with identical function and layout. These models are designated *20791-04-XX* and *20677-04-XX* respectively corresponding to the host units that they are designed to upgrade. The host units are mobile infusion devices designed to be employed in the medical care environment. The wireless functionality afforded to the host units by the EUT include the ability to download drug library information for simultaneously operating hosts without requiring a physical connection.

The digital portion of the module centers around an ARM 7 central processor that is used to implemented a 10/100BaseT Ethernet interface. The processor also interfaces with a USB controller that implemented a USB port for connecting the USB 802.11 a/b/g wireless radio dongle on the board assembly.

The Ethernet and wireless radio interfaces to the ARM7 processor are mutually exclusive. The radio is disabled if an Ethernet cable/network is connected to the RJ-45 interface and is enabled if the Ethernet connection is removed.

The Infuser flash and RAM memories also reside on the board and are interfaced to the ARM7 processor to facilitate drug library downloads.

The USB radio implemented with the D-Link DWL-AG132 USB dongle which is based on the Atheros AR5112 dual-band a/b/g WLAN chip-set. The USB connector interfaces with the AR5523 MAC processor driven off a 24MHz crystal. The dual-band up- and down-converter are implemented in the AR5112 chip which drives the RF front-end module. A single surface mount antenna is connected to the USB dongle via a coaxial cable. The USB dongle is powered off a regulated 5V bus on the module assembly.