D. Description of Test Sample

The test samples consist of the Plum A+ Infusion pump as the host device containing a Connectivity Engine peripheral module that provides wired Ethernet and wireless 802.11b local area networking capabilities. This allows the Hospira MednetTM networked application software for drug library downloads and Auto-programming to the infuser. The Connectivity Engine board is used with model List numbers 20679-04, 11971-04-03 and 12391-04 of the Plum A+ host device. The picture below depicts a general view of the test sample.

The Connectivity Engine board housing the wireless radio is a single PCBA housing a combination of a digital processor module and an 802.11b wireless module. The processor module uses a NetSilicon ARM7 processor available from NetSilicon with sufficient for Ethernet access and wireless 802.11b access. The ARM7 processor runs embedded Linux OS, a prism 2.5 WiFi controller, and an interface to the Plum A+ pump processor with decoded SRAM and flash.

The RF portion of the 802.11b radio circuitry is housed under a shield. The shield design and the layout of the components under the shield has been duplicated from the Intersil 802.11b Mini-USB reference design. The 802.11b radio has a single surface mount antenna that is integrated with the board housing assembly and connected to the RF port on the board via a 3" coaxial cable using standard MMCX connectors at both ends. The antenna and the antenna cable are not user accessible.