EMBERTECH – IN HOME DISPLAY (IHD), Model BBBA

Operational Description

A brief description of the circuit functions of the device along with a statement describing how the device operates. This statement should contain a description of the ground system and antenna, if any, used with the device.

> The circuit consists of:
> - ARM9 processor with integrated PMIC, RAM 64MB and NAND Flash 512MB.
> - Temperature/humidity sensor, Proximity/ALS Sensor and LEDs connected via I2C.
> - Combined Wi-Fi and Bluetooth module with TI chip antennae design. Wi-Fi is connected to the main processor via SDIO interface and the Bluetooth is connected via UART.
> - Zigbee Module with integrated chip antennae and is connected to the main processor via a UART interface.
>
> The unit is power via an isolated mains plug pack and has a single isolated ground.
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> The Emberpulse operates as a gateway to connect to a ZigBee Smart Energy network for communicating with a smart electricity meter as well as creating a ZigBee Home Area network for home automation.
>
> Emberpulse will use either the Wi-Fi or Ethernet to connect via the home internet router to a cloud service for web and mobile app integration.
>
> Bluetooth and WiFi connectivity may also be used to connect to home appliances for home automation purposes.
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> See below for a block diagram of the device circuit, including the identification of major components.