Operational Description
Audiovox Remote

September 7, 2010

1   Overview

The Audiovox Remote is a Bluetooth enabled hardware capable of receiving Bluetooth packets from select models of Bluetooth enabled devices and converting it into IR waveform to control the operation of IR Devices environment.

2   Basic Blocks

The AV Hub consists of the following building blocks:

- Bluetooth Controller
- IR Engine

3   Theory of Operation

3.1   Bluetooth Controller

The Bluetooth controller is configured to receive Bluetooth packets through a 2.4GHz RF link being transmitted from a paired and connected device. The Bluetooth packets received by the Audiovox Remote contains either the equivalent IR data corresponding to a specific command. Once the Bluetooth packets are received and processed, the Audiovox Remote then communicates through an on board serial protocol to the IR engine and/or to the end device.

3.2   IR Engine

Once the Audiovox Remote processes the Bluetooth packets, it then communicates with the IR engine through a UART protocol with the IR waveform code set. The IR Engine will then commence firing the IR LED's with the appropriate IR waveform as per instructions from the Audiovox Remote.