**CIRCUIT DESCRIPTION:**

The system is composed of a Master which is an EPSON 63567 Epson MCU and an RF Section. The Host MCU is driven by 2 crystals, a 32 Khz for Time base clock, and a 3.58Mhz for High Speed oscillators. The RF Section composed of Chipcon's 2.4Ghz GFSK Transceiver, driven by a 26Mhz Crystal. The front end from the Antenna, is a filter and a matching network before feeding to the RF IC (CC2500).

**ANTENNA AND GROUND CIRCUITRY**

The system utilizes a metal sheet monopole antenna that is mounted to the printed circuit board. This antenna connects to the Filter and matching network front end. No external grounded is connected to the antenna. Supply of the system comes from a CR2032 3V Lithium Ion Battery

**RF OPERATION:**

**A. Synchronization Mode**

The display device listens for Packets from a Transmitting device and is setup for listening mode. This is done when the display is in BLANK STATE, and a button is pressed, which displays a message "PRESS ARM BAND BUTTON TO SYNC". Listening mode receiver are done It also transmits ACK Packets whenever it is required to. If the System is able to pair (Display Device and ARM Band), system shall go into "SYNCED MODE".

During the Sync mode, nn each packet receive, the Display Device Transmits and ACK Packet. This is the only state when the display device is configured in a Transmitter mode. The ACK packet is a short burst in a span of less than 1mS.

**B. Synched Mode**

The system is synched if the "SYNC" Icon is on in the display. In this state, the Display Device turns on every 1 Minute. The

**C. RF Transmit Mode**

The firmware has built in facility to allow the Display device do a continuous transmit and a continuous receive. After the Display device is brought from a power on reset state, pressing the Mode and Light button together, brings the system to a continuous Transmit. On the other hand, pressing the buttons RESET and VIEW, from power on reset, the display device is brought to a continuous receive.