

Operation

The default frequencies are 88.1MHz for US.

Pressing the two buttons “+” or “—” step the transmission frequency up or down respectively. Holding down the two buttons “+” or “—” for 3sec will accelerate the stepping frequency.

IA-AIR-00 will turn on and start transmission for receiving the “Begin Transmission” command through UART interface or receiving audio signal through the audio plug for 3sec.

System will turn off automatically for receiving the “End Transmission” command though UART interface or not receiving audio signal for 60sec.

LCD of IA-AIR-00 will only be activated and turn on either system is plugged into **iPOD** or one of the control buttons is pressed. LCD will turn off automatically for no further activation in 8sec.

The UART of IA-AIR-00 hires two pins, Rx and Tx, for interfacing to **iPOD**. The baud rate is either 9600bps or 19200bps. Communications use 8 data bits, no parity and one stop bit, i.e. 8-N-1.

Upon power up of **iPOD**, IA-AIR-00 will wait 80msec and then send a “Sync” byte. Then will wait for another 20msec and send the “Identify” packet to identify itself to the **iPOD**. (See table 2.)

Once the packet transmission has begun, the maximum time between transmitted characters must be less than 20msec. (See table 1 for packet format).

The packet payload length is the number of bytes in the packet not including the “Sync” byte, packet start byte, packet payload length byte, or packet payload checksum bytes. That is, it is the length of the Command ID plus Lingo plus the Command data. Lingo ID for IA-AIR-00 is 0x05.

IA-AIR-00 will send the packet shown in Table 2 at start up to identify itself and request power more than 5mA. Upon receipt of the begin transmission command (Table 3), system can begin drawing more than 5mA (up to 100mA).

IA-AIR-00 will return to less than 5mA power usage within 1sec of receipt of an end transmission packet (Table 4).

The **iPOD** may send a request to IA-AIR-00 to ask system to re-identify (Table 5). At this time system will send the identify packet to re-identify. The identify data payload is the command ID 0x01 followed by a single byte of the same values as the lingo specification of the functionality the device implements. The identify packet returned in response to a request identify packet does not need to have the extra sync bytes and delays used during the device startup process.