

Dongle DVR

User Manual

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Introduction:

Introducing the Dongle DVR digital voice recording system for many of the RLC repeater controller family. The new module can be interfaced with the RLC-2/2a, RLC-3, RLC-Club, RLC-Club Deluxe and the RLC-Club Deluxe II controllers. This new module provides a method of recording and non-volatile storing of voice prompts and messages.

The Dongle DVR can be ordered in two configurations

- 8 Minutes total record time
Audio roll-off at 3.4 KHz

- 16 minutes total record time
Audio roll-off at 1.7 KHz

The Dongle DVR emulates the RLC-DVR1 digital voice recorder with the following exceptions.

- No Public mail is supported
- No Private mail is supported
- Only 91 general message slots
- No RS-232 port for uploading data files

On the RLC-Club Deluxe II controller, the DVR takes Port 6. Refer to your Deluxe II manual for the correct jumper settings on Port 6.

The prompting tracks (Tracks 250, 251, 252, 253) are pre-recorded. If you erase these tracks, you will need to re-record the prompting tracks with your own audio.

Features such as track prompting and over the air testing are supported. The Dongle DVR does not require record memory back-up with a battery or external DC source. All messages are stored in non-volatile eeprom memory. Tracks can only be written and erased over 100,000 times.

The Dongle DVR is housed in a DB-25 hood and contains a 16 bit microprocessor and a digital record chip. Handle with care as this is a static sensitive device. Reverse power protection is included and the internal +12V is fused utilizing a poly-resettable fuse. No other connections other than +12V and a DB-25 for the controller interface is needed.

Do not plug the Dongle DVR into any other DB-25 connector other than the RLC-DVR1 interface.

Dongle DVR Adapter Interface:

When using the RLC-2/2a, RLC-3 and the RLC-Club (without a Deluxe interface) you will need the Dongle DVR adapter board. This module provides all the signals needed for the Dongle DVR to work properly. On the module is an 8 position DIP switch that allows configuration settings for the different controllers.

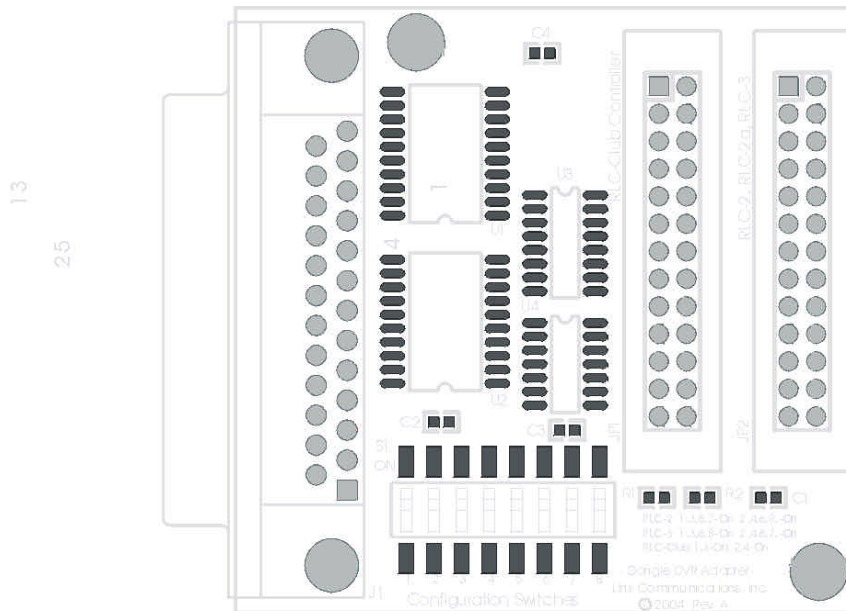
Switch Settings:

RLC-2/2a controller: Switch 1,3,5,7 = ON: Switch 2,4,6,8 = OFF

RLC-3 controller: Switch 1,3,6,8 = ON: Switch 2,4,5,7 = OFF

RLC-Club controller: Switch 2,4 = ON: Switch 1,3 = OFF

The RLC-2/2a and RLC-3 use Connector JP2 (Right Angle connector that plugs into the board)
The RLC-Club uses JP1 and included 26 pin cable assembly.



Connection Instructions:

- 1) Power the controller off
- 2) Plug the Dongle DVR into the DB-25 connector. If no DB-25 connector is available, then plug the Dongle DVR Adapter board into the controller, and then plug the Dongle DVR in.
- 3) Wire +12V to the power plug (provided) with center pin positive, and outer pin as ground.
- 4) Apply power to both the controller and the Dongle DVR module
 - The Power LED should light on the Dongle DVR module

5) Enable the DVR-1 in the controller

- RLC-2/2a Controllers: Command 153: 153 1
- RLC-Club Controllers: Command 182: 182 1
- RLC-3 Controllers: Command 182: 182 1

6) You can now record and playback from the DVR

- RLC-2/2a Controllers:
 - Playback Command: Command 154
 - Record Command (Prompted) Command 155
 - Erase Command: Command 156

- RLC-Club and RLC-3 Controllers:
 - Playback Command: Command 173
 - Record Command (Prompted): Command 172
 - Record Command (Non-Prompted): Command 171
 - Erase Command: Command 174

7) Internal prompting tracks help in the recording process

- Track 250: Please Record Your Message Now
- Track 251: Your message is Stored
- Track 252: Your Message is erased
- Track 253: Invalid Message Track

Prompting tracks are limited to either 5 or 10 seconds depending on the DVR record length.

8) Tracks 0 to 90 are time limited tracks

- 8 Minute DVR - Tracks are 5 seconds each
- 16 Minute DVR - Tracks are 10 seconds each

9) Tracks 100 to 190 bypass the time limiting. If you record more than a tracks length, you will overwrite the track(s) following. Use caution when recording tracks 100 to 190.

10) For Over the Air recording (Used for signal strength measurements), the track length is treated like a normal audio track in length. When the user issues the command, the Dongle DVR will record the incoming audio, and when the user unkeys the radio, will immediately play the recorded message back.

- RLC-2/2a Controllers: Command 163
- RLC-Club and RLC-3 Controllers: Command 170

11) When watching the Dongle DVR, the following LED's will indicate its functionality.

- When the DVR is powered, the Power LED will light
- When the DVR is playing back, the Play LED will light
- When the DVR is recording, the Rec. LED will light
- When the DVR is erasing, both Play and Record LED's will flash

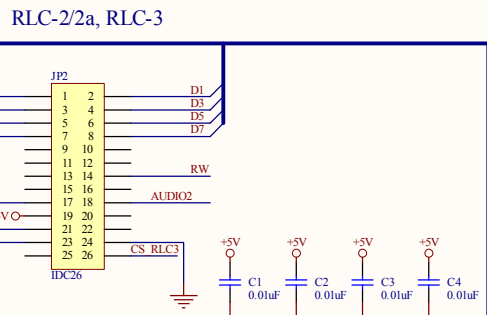
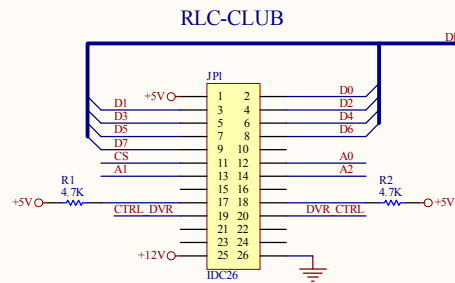
12) When adjusting the Dongle DVR, the following pots are used. The pots are set-up so 12 o'clock position is about normal.

**** Note ****

Adjust the levels so they sound good to you. If the record level is adjusted to high, the audio will sound clipped when played back, at any Playback adjustment point.

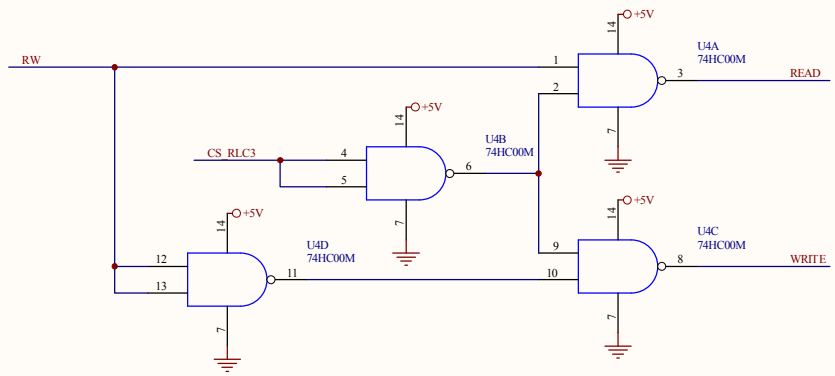
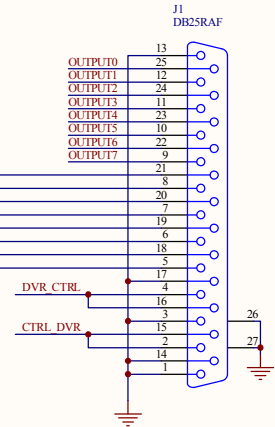
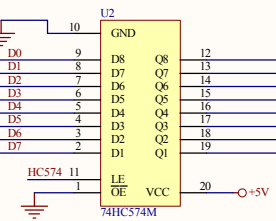
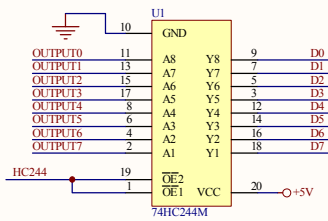
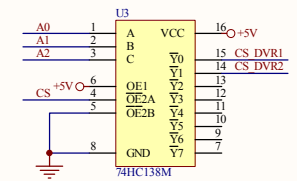
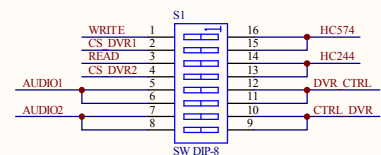
- Record level is adjustable using the REC pot on the Dongle DVR
- Playback Level is adjustable using the Play pot on the Dongle DVR

Hardware Schematics:

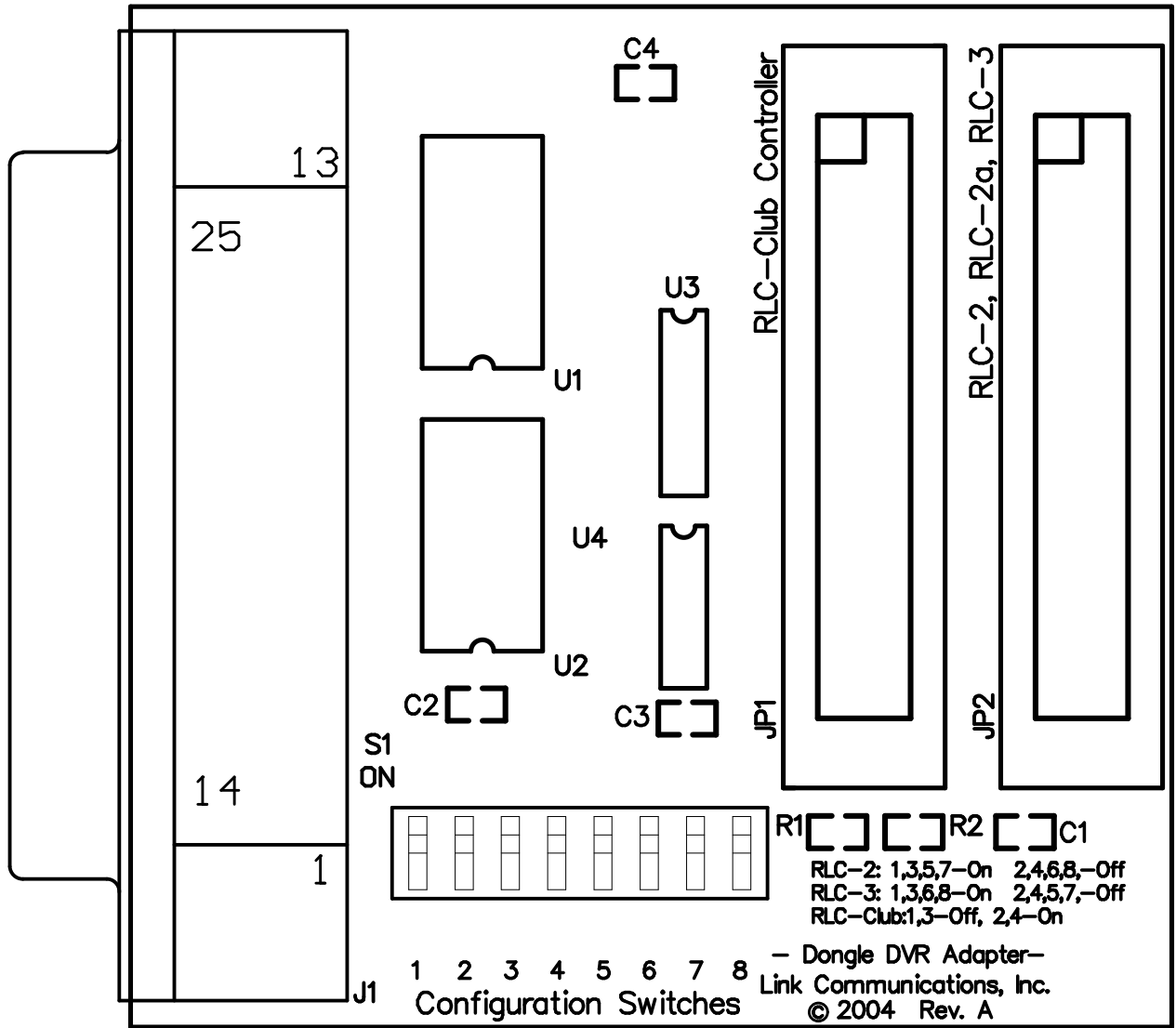


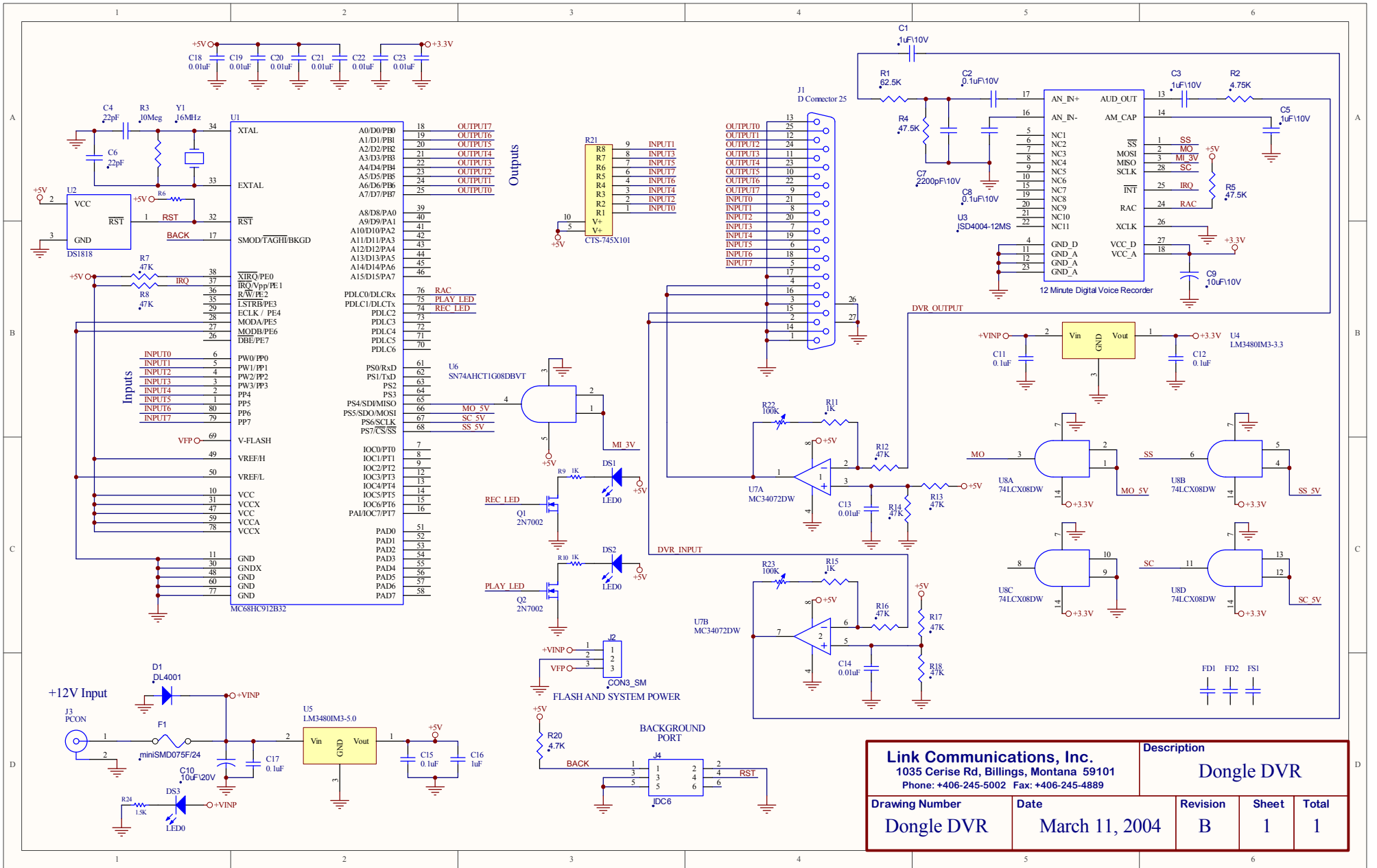
Switch Settings

RLC-Club: 1,3-Off, 2,4-On, 5,6,7,8-NA
 RLC-2/2a: 1,3-On, 2,4-Off, 5,7-On, 6,8-Off
 RLC-3: 1,3-On, 2,4-Off, 5,7-Off, 6,8-On



Link Communications, Inc. 1035 Cerise Rd, Billings, Montana 59101 Phone: +406-245-5002 Fax: +406-245-4889		Description Dongle DVR Adapter Module		
Drawing Number Adapter Module	Date March 11, 2004	Revision A	Sheet 1	Total 1

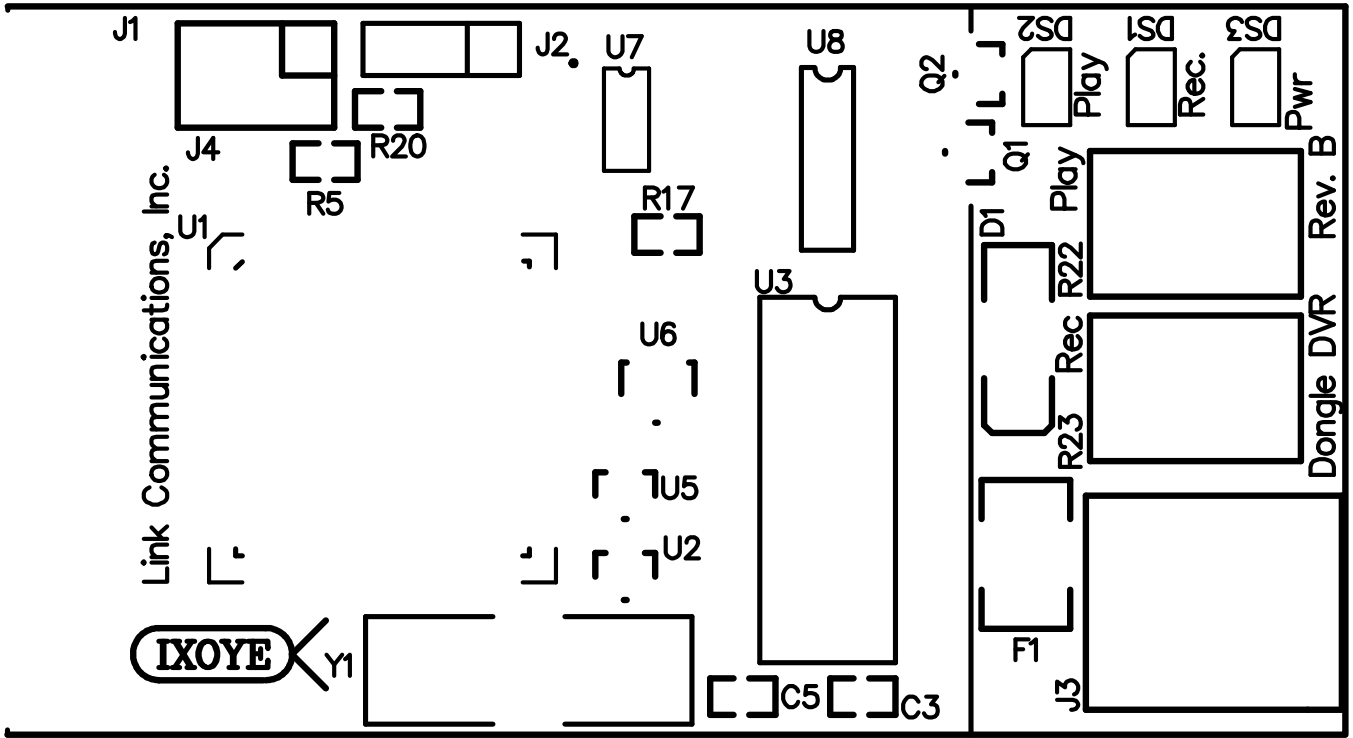




Link Communications, Inc. 1035 Cerise Rd, Billings, Montana 59101 Phone: +406-245-5002 Fax: +406-245-4889		Description <h3>Dongle DVR</h3>		
Drawing Number Dongle DVR	Date March 11, 2004	Revision B	Sheet 1	Total 1

DB-25 Connector to Controller

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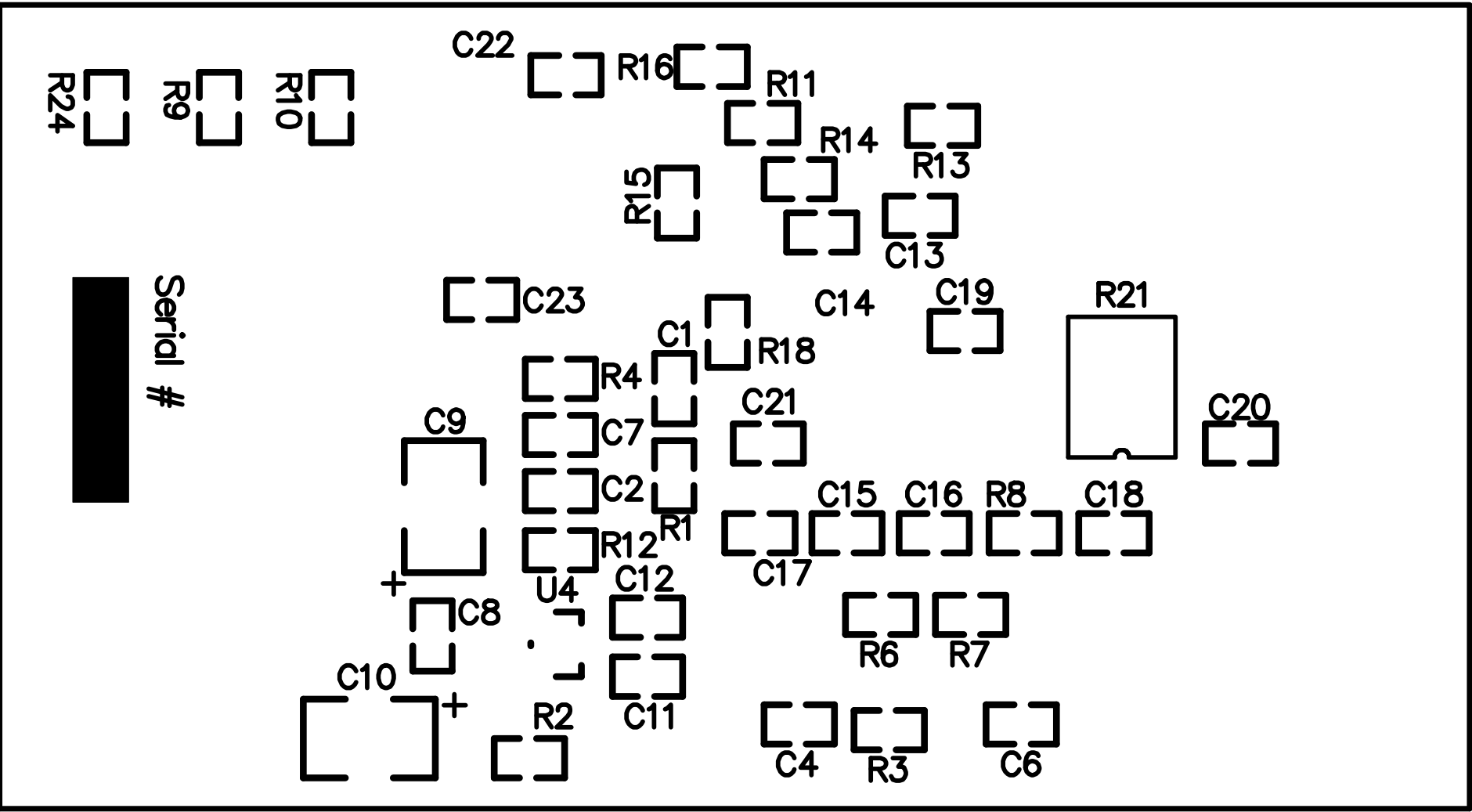
<< DVR Play LED
 << DVR Rec. LED
 << Power LED

<< Playback Adjustment
 << Recording Adjustment
 << +12V DC Input

Components on Front of the Board

DB-25 Connector to Controller

V V V V V V V V V



Components on Back of the Board