

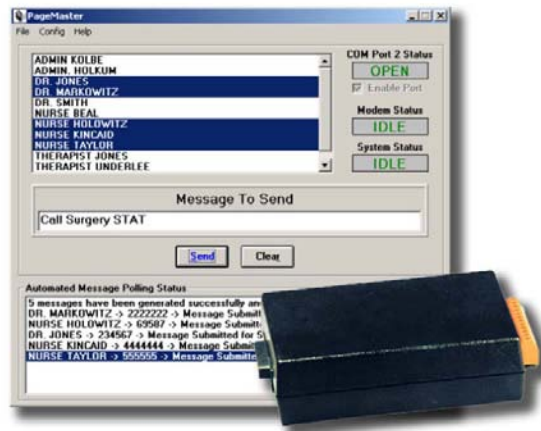


## CAD-POCSAG

PC BASED POCSAG ENCODER (Serial DB9 Version)

## CAD-POCSAGU

PC BASED POCSAG ENCODER (USB Version)



**Manual Revision: 2012-05-09**

**Covers Firmware Revisions:  
CAD-POCSAG: 1.0**

**Covers Software Revisions:  
CAD-POCSAG: 2.5 & Higher**

**Covers Hardware Revisions:  
CAD: 219F & Higher**

## SPECIFICATIONS

Operating Voltage	10-15 VDC
Operating Current	22 mA
NRZ Data Rate	512, 1200, & 2400
PTT Output Current	1 A
Data Output Level	0-1/2 VIN
Data Output Impedance	5 K Ohm
Dimensions	5.87 x 4 x 1.5"
Operating Temperature	-30° to +60° C
Maximum Message Length	100 characters

## SYSTEM REQUIREMENTS

Windows 98 Second Edition or Higher  
Pentium 1 or Higher  
10 MB of Disk Space  
64 MB of RAM

**Operating System:**

Windows 98 SE, 2000, XP SP2 and higher

**Processor:**

Pentium 1 or Higher

**Hard-Drive Space:**

Minimum 10 MB

**RAM:**

Minimum 64 MB

**Serial DB9 Version is ordered as CAD-POCSAG.**

**USB Version is ordered as CAD-POCSAGU.**

## GENERAL INFORMATION

Midian Electronics' CAD-POCSAG enables the user to encode POCSAG pages to single or multiple pagers at one of three baud rates (512, 1200 or 2400). Files inserted into a network folder can also be encoded by the CAD-POCSAG.

**POCSAG:** POCSAG is a digital paging format used for alpha and numeric pages. POCSAG was originally specified by the British Ministry of Posts and Telecommunications.

## HARDWARE INSTALLATION

**Pin 1 – Ground** – Connect to ground in the base station.

**Pin 2 – B+** - Connect to a 10-15 VDC source in the base station.

**Pin 3 – PTT Output** – Connect to the PTT input of the radio. This open collector provides a ground during PTT.

**Pin 5 – Data Output** – Connect to the Data Input of the radio which provides a flat frequency response.

**Pin 9 – COR Input** – Connect to a point in the Squelch or CTCSS circuit that changes logic level when carrier is received. A radio whose squelch circuit provides a logic low or logic high can readily turn the COR transistor on and off. If the point that this lead is hooked to only makes a minute change in voltage, it will be necessary to adjust the values of the input resistors to cause the COR transistor to change states.

The USB connector is P3.

The following are the pins used on the Female DB-9 connector P2 (RS-232).

**P2-2 – TX Output**

**P2-3 – RX Input**

**P2-4 – Data Terminal Ready**

**P2-5 – Ground**

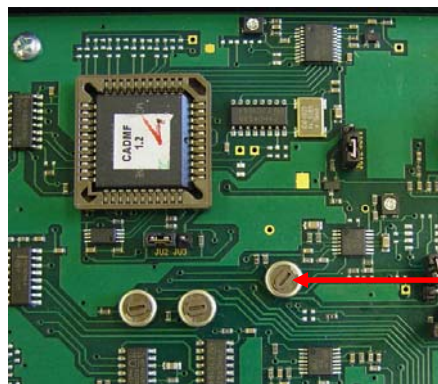
**P2-6 – Data Set Ready**

**P2-7 – Clear To Send**

**P2-8 – Request To Send**

## HARDWARE ALIGNMENT

**Output Level:** To set the output level, command the CAD-POCSAG to send a lengthy page by typing a long message and sending to multiple pagers. Set R78 for a deviation of  $\pm 4.5$  kHz at the transmitter.



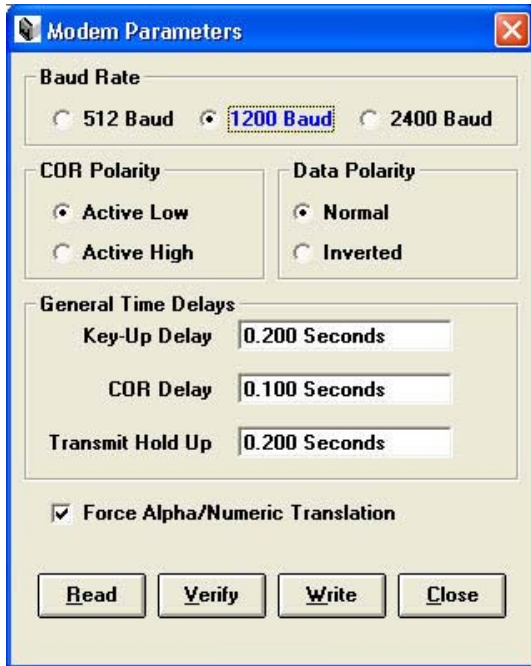
R78: Output Level

## SOFTWARE INSTALLATION

Insert the CD-ROM that came with your product, which is labeled "Programming Software & Product Manual CD-ROM" into your CD drive. The CD-ROM should launch automatically. If it does not, simply navigate to the drive letter of your CD-ROM and double-click 'Browser.exe'. This will launch the web browser and display the home page so that you may view the contents of the Programming Software & Product Manual CD-ROM.

1. From the main page click the link of the navigation bar titled Misc. Software.
2. After the new page appears click on the link in the main window labeled CAD Series Software.
3. This will open a page that lists all of our CAD products. Double-click on the link titled CAD-POCSAG (Page Master) > this will automatically start the installation program.
4. Follow the installation instructions.

**Modem Parameters:**



**Baud Rate:** Select the baud rate of the POCSAG pagers, either 512, 1200 or 2400 bps.

**COR Polarity:** This should match the active COR polarity of the radio.

**Data Polarity:** This polarity is dependent upon the radio and can only be determined by experimentation.

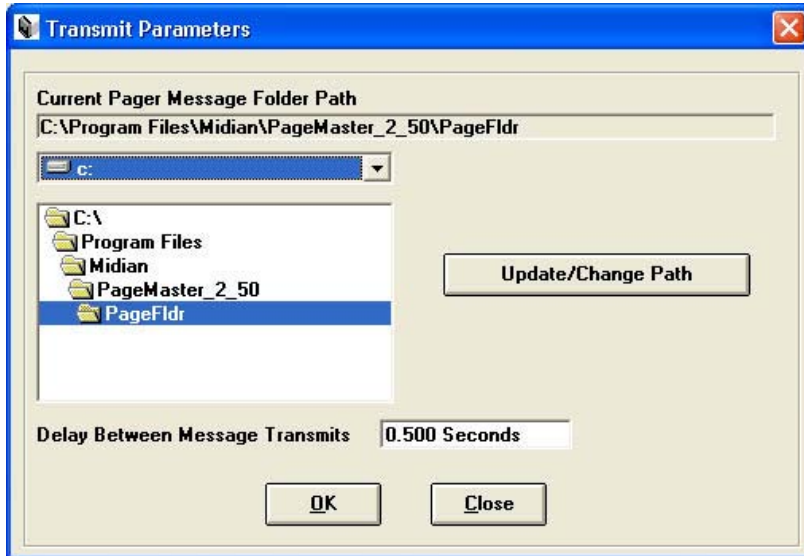
**Key-Up Delay:** This sets the delay from when the radio starts to transmit until the CAD-POCSAG encodes the POCSAG sequence.

**COR Delay:** This sets the time that the channel must be inactive before the unit will attempt to send a page.

**Transmit Hold Up:** This is a length of time after the POCSAG has been encoded that the transmitter will remain keyed.

**Force Alpha/Numeric Translation:** Check this box if the pagers are not capable of 7-bit and 4-bit decoding. If checked the unit will send each message as 7-bit encoding. If unchecked it will send numeric messages as 4-bit encoding.

## Transmit Parameters:



**Message Folder Path:** The unit can automatically encode files that are deposited into this folder. The files must use a “.msg” extension and have the cap code on the first line, the client name on the second line and the message to be sent on the third line. For example:

```
12345678  
John Smith  
Call Debbie at 555-1234
```

**Delay Between Message Transmits:** This is the amount of time the unit will unkey the transmitter before attempting to send the next message.

**Adding A New Client:** Go to Config > Add A New Client. Enter the name of the Client and the cap code of the pager.



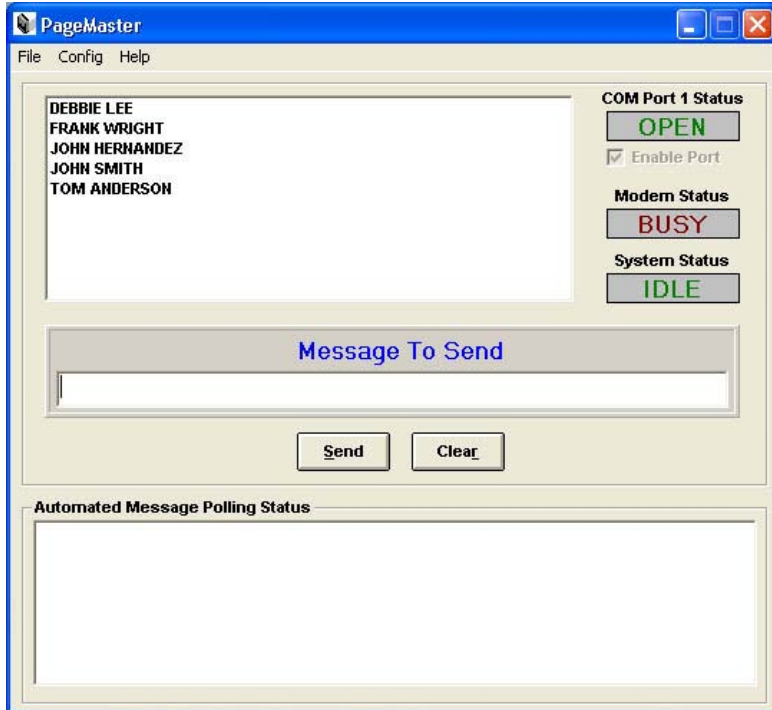
**Edit Selected Client:** Go to Config > Edit Selected Client. Modify the name and/or the cap code of the client.

**Delete Selected Client:** Go to Config > Delete Selected Client. This will delete the highlighted client. Right clicking the highlighted client also enables deleting of the client.

For more detailed instructions on how to use this product, please see the online help files after installing the product. These may be viewed by launching the CAD-POCSAG (Page Master) and going to Help > Contents.

If you allow your mouse to hover over a data field or the label of a data field, you will see additional details and/or tips for that section. Pressing the F1 key in a data field will bring up additional help information. More detailed information is available in the online help files.

## OPERATION



**Sending A Message:** To send a POCSAG page select the client or clients to send the message to. Select a range of clients by selecting the first, holding the shift key, and selecting the last in the range. Multiple clients can also be selected by clicking on multiple clients while holding the control key. Once the client(s) are selected type the message and select the send button.

**Clearing A Message:** To clear a message click on the clear button. This will clear the message field and deselect the client(s).

## TECHNICAL NOTES

**Radio Compatibility:** Midian has taken the utmost care to ensure the CAD integrates with the radio with minimal impact to the features of the radio. However, some features may not be available in the radio when a CAD is used. If a feature is not available, please contact Midian to see if the feature can be added.

**International Windows Versions:** Even though Midian has worked to make this product internationally compliant, Midian recognizes that there may be additional issues to be resolved.

## MIDIAN CONTACT INFORMATION

**MIDIAN ELECTRONICS, INC.**

2030 N. Forbes Blvd. #101  
Tucson, Arizona 85745 USA

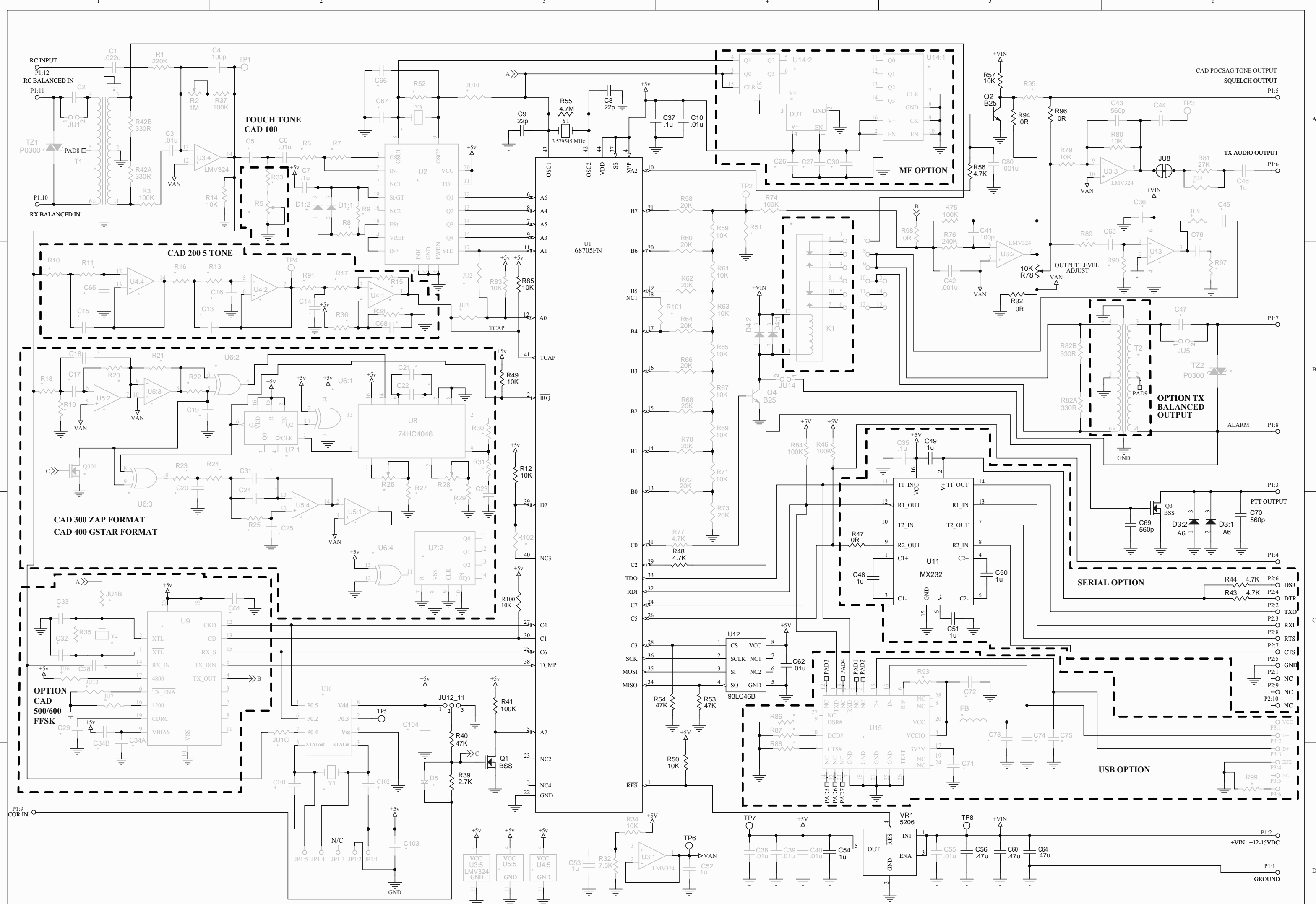
**Toll-Free:** 1-800-MIDIANS

**Main:** 520-884-7981

**E-mail:** [sales@midians.com](mailto:sales@midians.com)

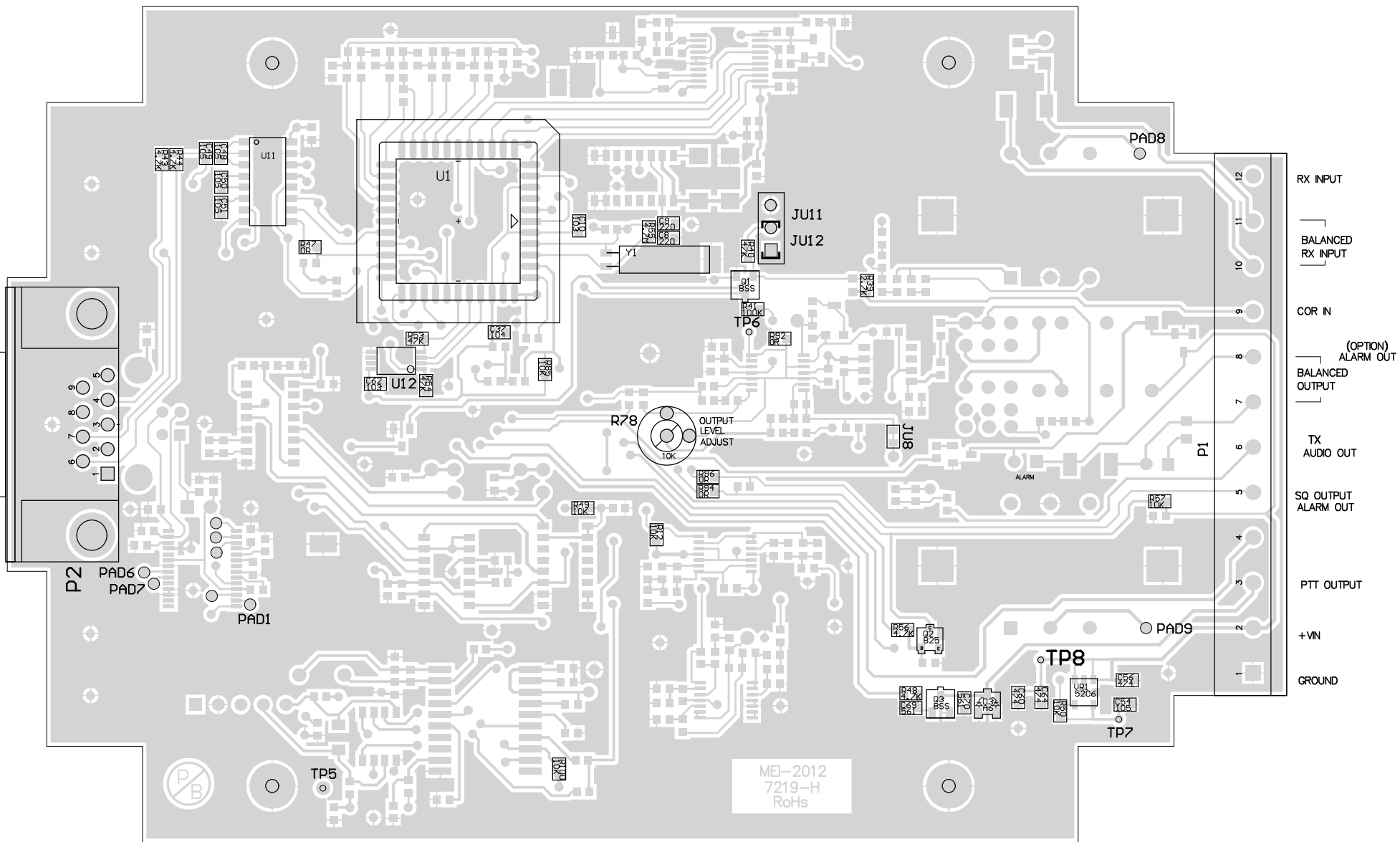
**Web:** [www.midians.com](http://www.midians.com)





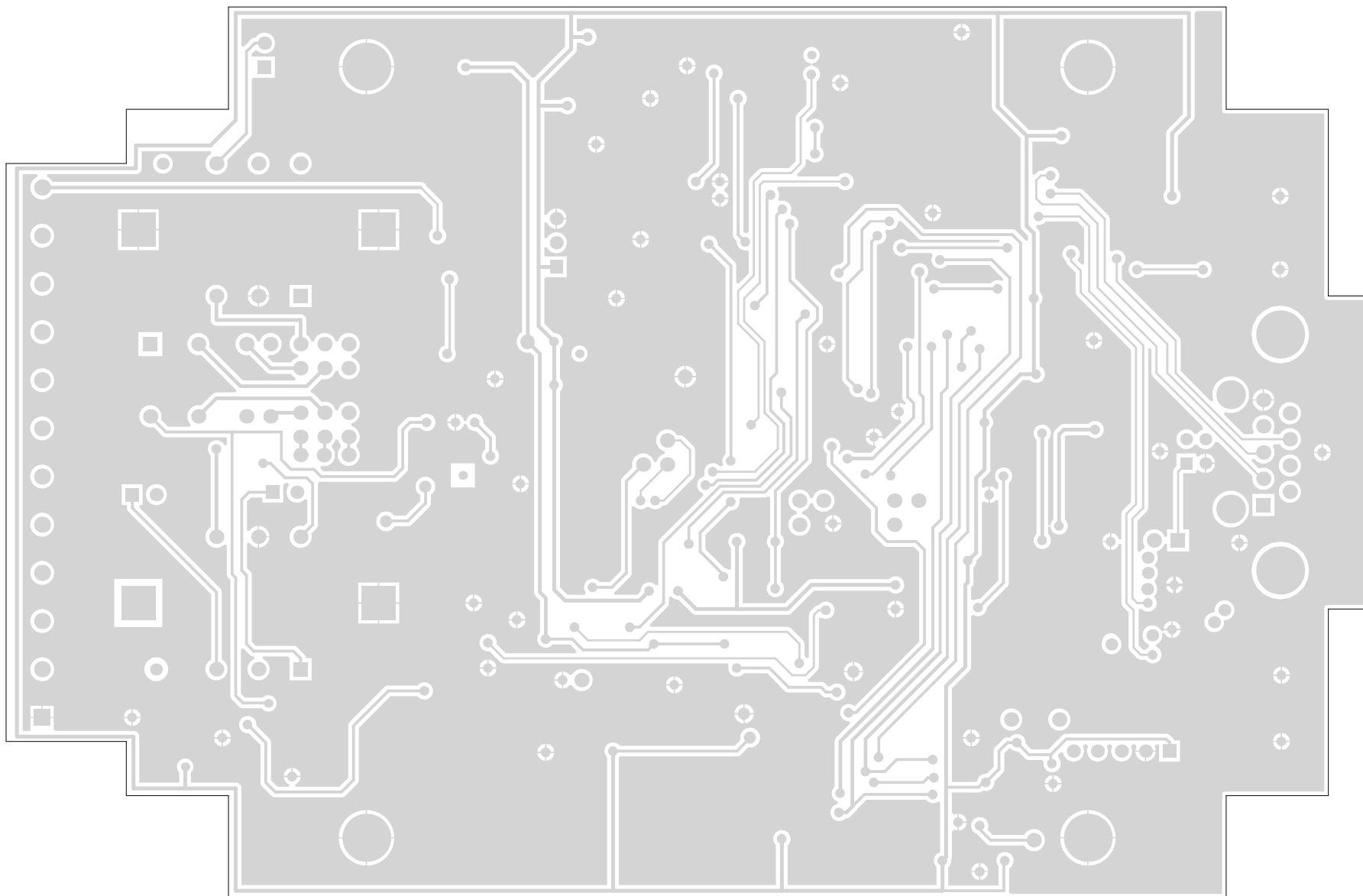
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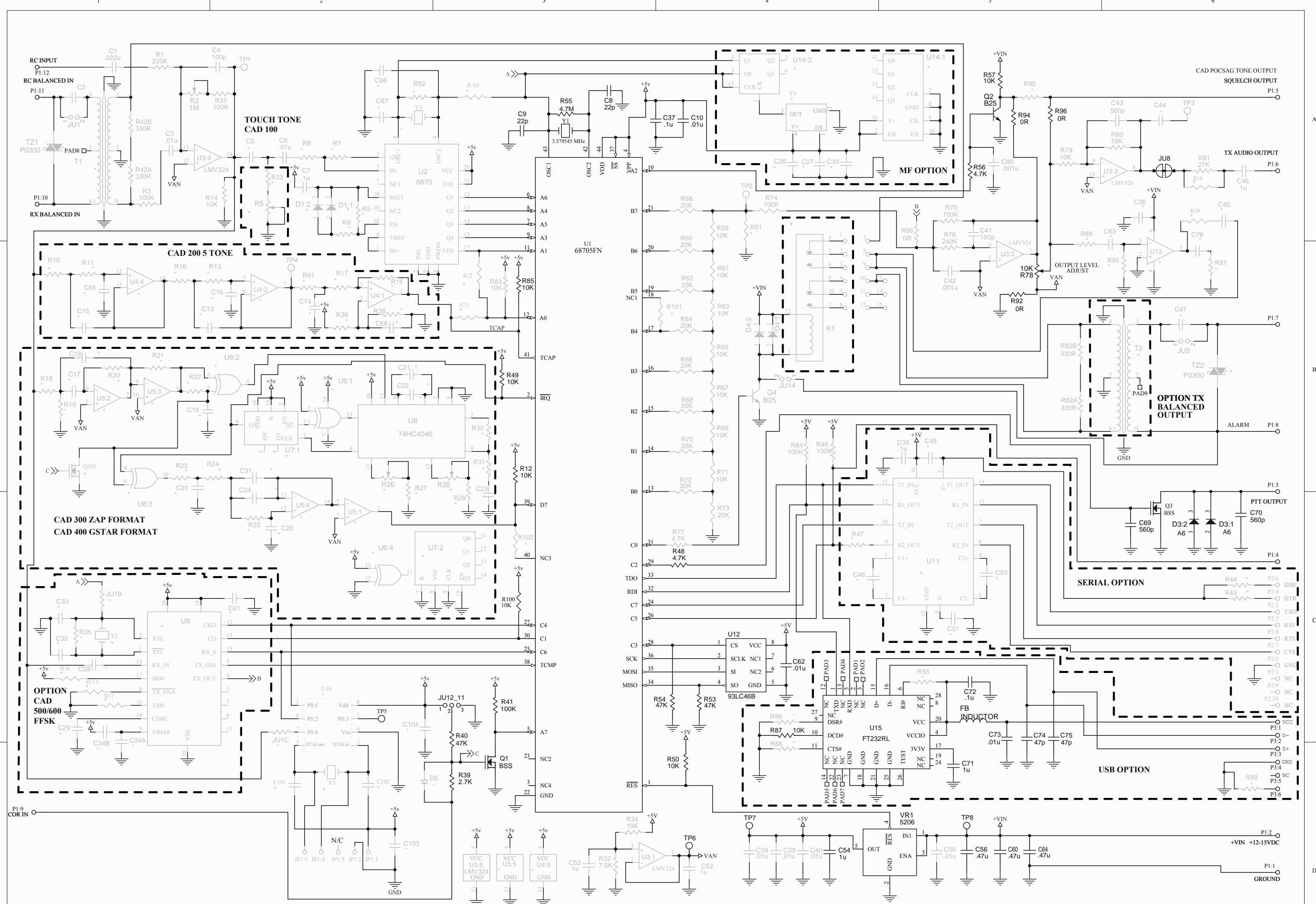


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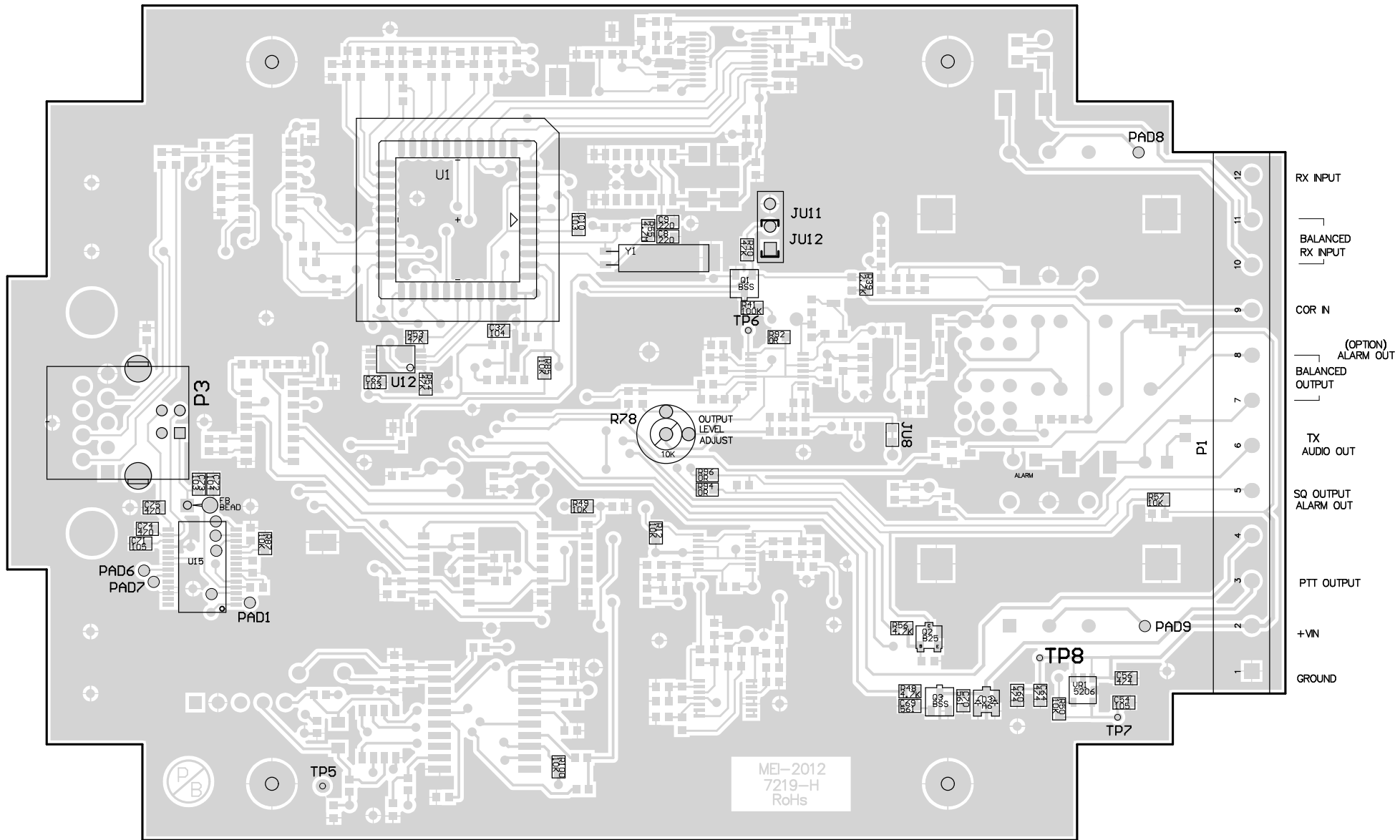


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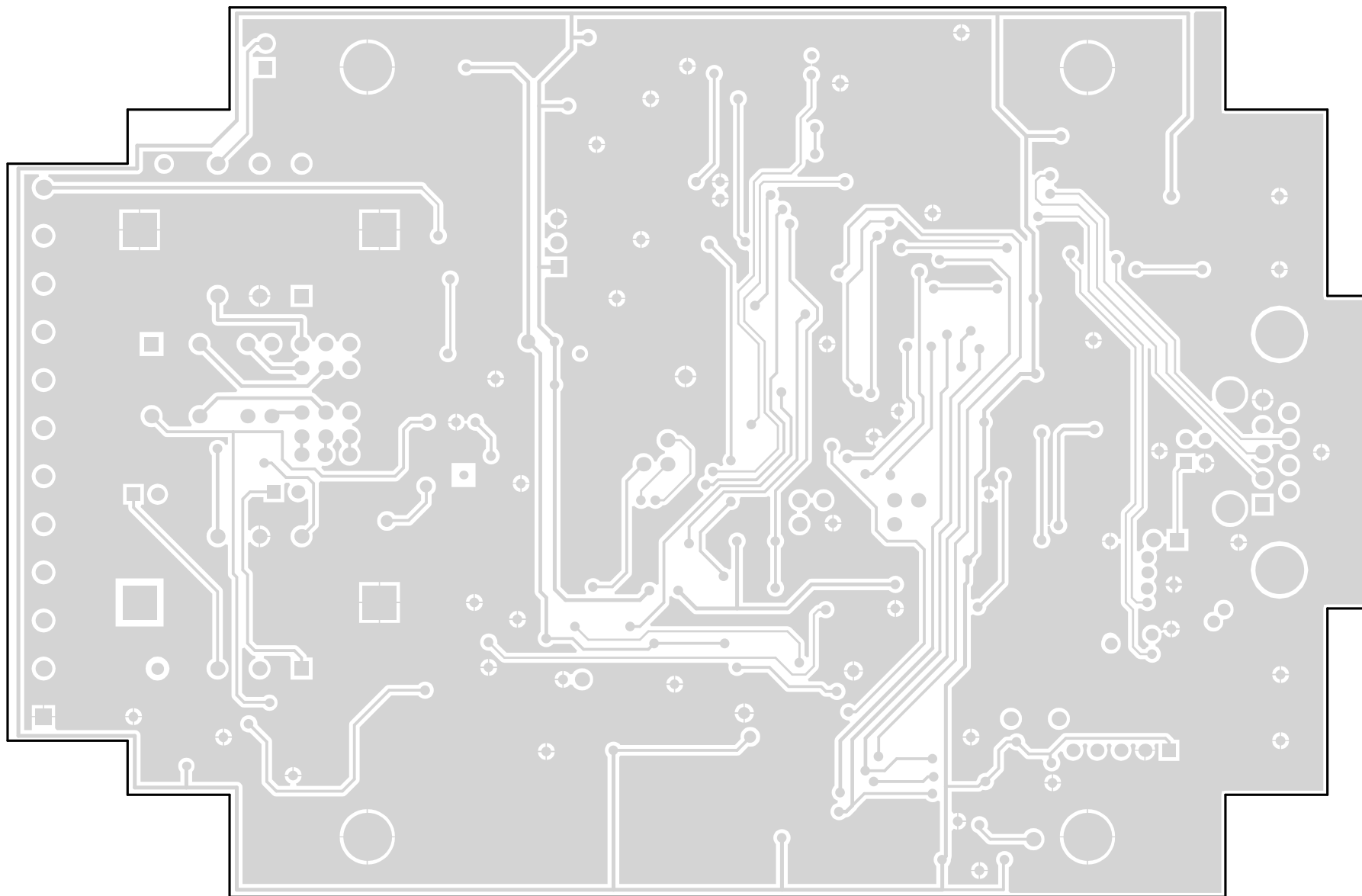


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