

## SDR-14 AUX Connector Pinout and Signal Description

The SDR-14 Auxiliary connector provides for connection to future optional devices. A synchronous serial, an asynchronous serial, and an I2C port are available. Currently, SpectraVue only supports the ICOM8500 receiver protocol. The hardware adapter is not yet in production.

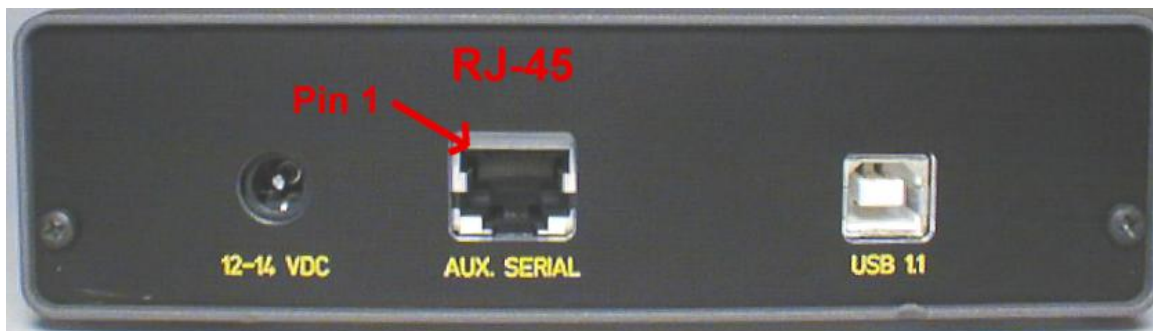
### !!!! CAUTION !!!!

**Connection to this port without sufficient knowledge can cause permanent damage to the SDR-14. All logic levels are 3.3Volt signals and will be permanently damaged if 5 volts or more are applied to these pins. Also Pin 1 is a +12Volt power output that if shorted to any of the other signal pins will cause permanent damage to the SDR-14. If you use a standard Ethernet cable make sure it is **NOT** a crossover cable or it will scramble the pinout insuring SDR-14 destruction. Also be aware that many Ethernet cables do not follow the standard color coding so always verify the actual connections if making your own adapters.**

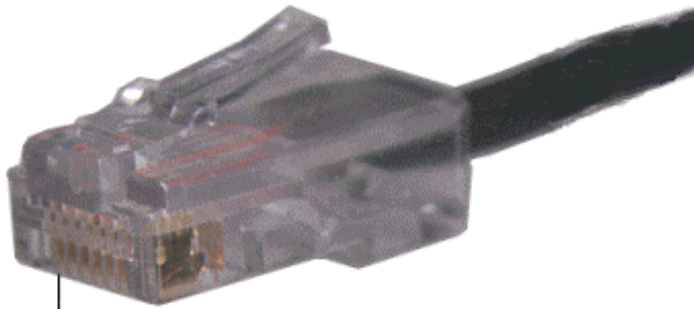
**RFSPACE Inc. and MoeTronix are not liable for any damage caused by homebrew adapters and cables.**

### !!!! CAUTION !!!!

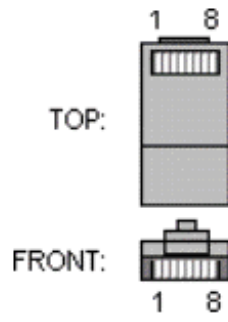
| Pin # | Signal Name | Signal Description   |
|-------|-------------|--|
| 1     | +12V        | Unregulated +12V   |
| 2     | SDI         | 3.3V Logic Level Sync Serial Data Input (SPI port) or SDA for I2C port |
| 3     | SCK         | 3.3V Logic Level Sync Serial Data Clock (SPI port) or SCL for I2C port |
| 4     | GND         | Signal Ground  |
| 5     | RX          | 3.3V Logic Level SDR-14 UART Receive (Input) data                      |
| 6     | TX          | 3.3V Logic Level SDR-14 UART Transmit (Output) data                    |
| 7     | SDO         | 3.3V Logic Level Sync Serial Data Output (SPI port)                    |
| 8     | GND         | Signal Ground  |



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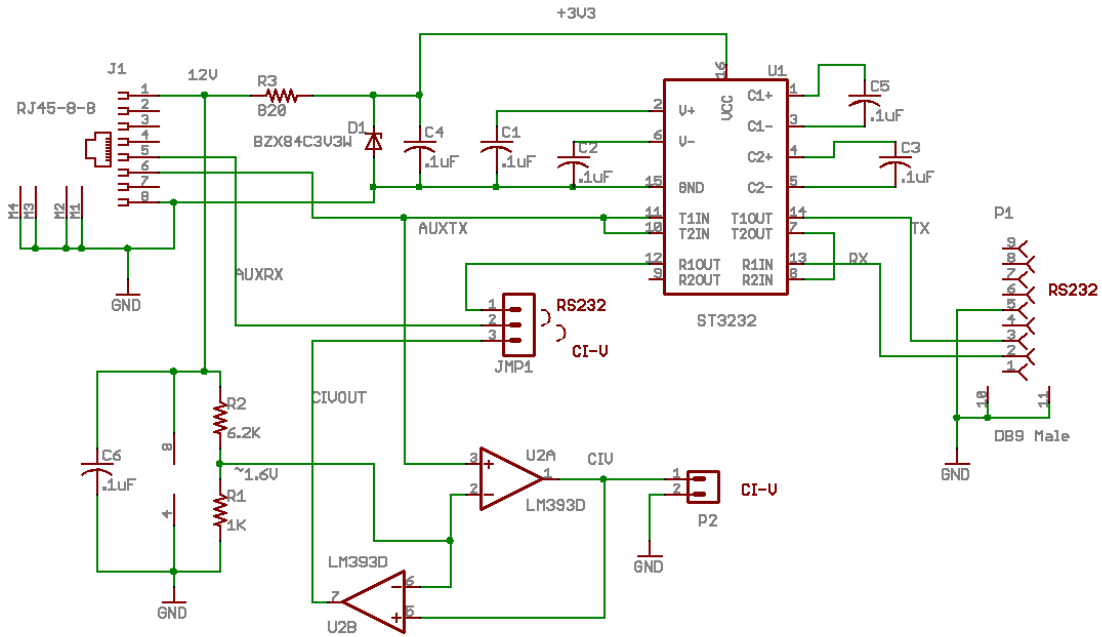
Pin 1



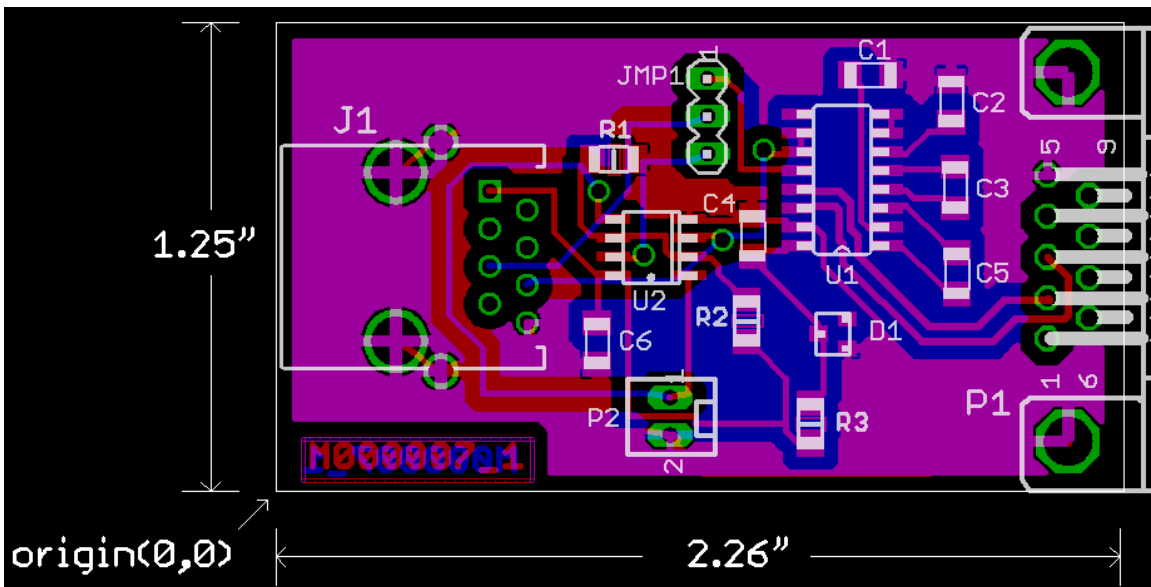
### RS232 or CI-V Adapter

This adapter design allows either an ICOM CI-V interface or a standard RS232 interface. The mode is selected with a jumper on JMP1.

#### Schematic

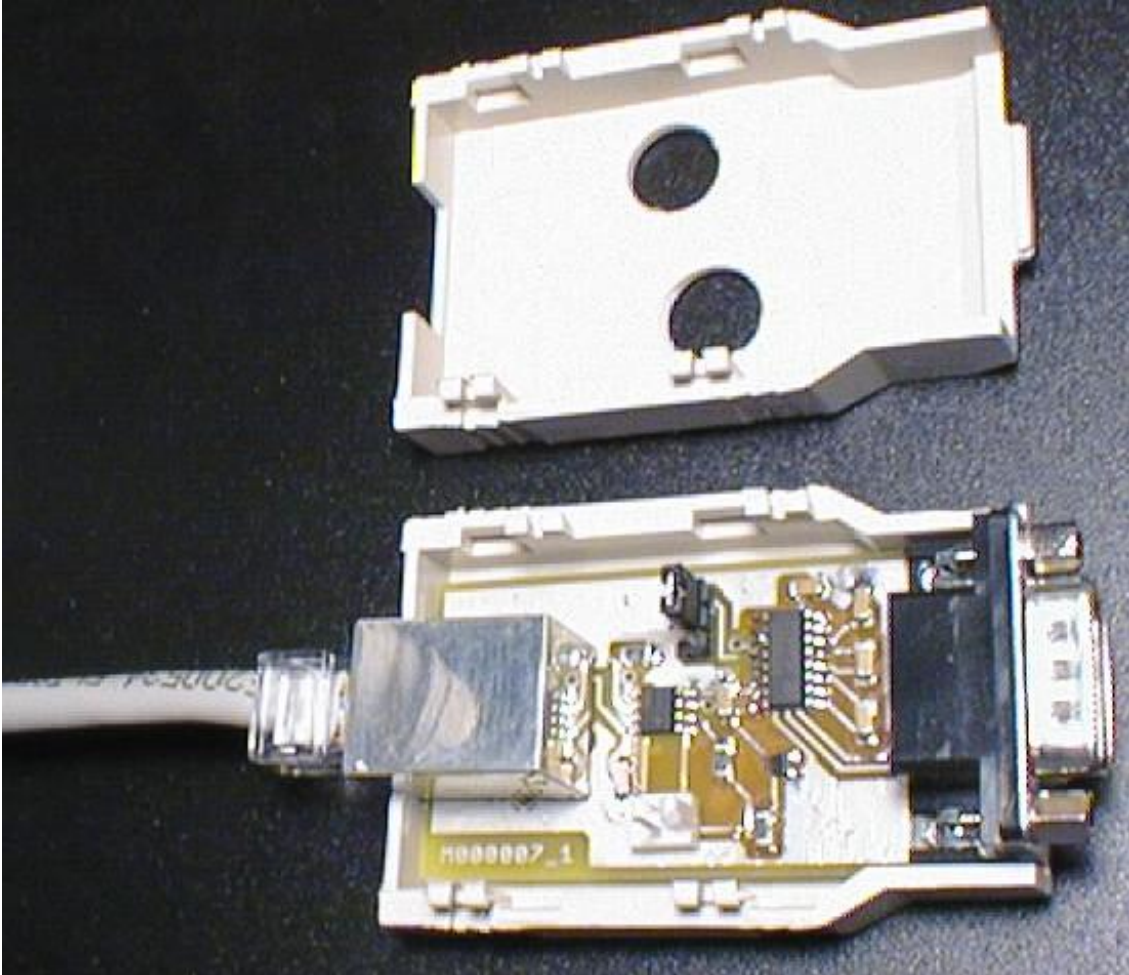


#### PCB artwork



Preliminary Documentation

**Photo of Completed Unit**



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Bill Of Material

| Ref  | Qty | Description                                  | Mfg Part #                  | Distr. Part #               |
|------|-----|--|-----------------------------|-----------------------------|
| U1   | 1   |  |                             |                             |
| U2   | 1   | SO-8 Dual Comparator                         | LM293D                      | Mouser 511-LM293D           |
| D1   | 1   | 3.3V 200mW Zener Diode                       | BZX84C3V3W-7                | Mouser 621-BZX84C3V3W       |
| C1-6 | 6   | ,1uF 1206 capacitor                          | Not critical                | Mouser 140-CC502B104K       |
| R1   | 1   | 1K 1206 Resistor                             | Not critical                | Mouser 263-1K               |
| R2   | 1   | 6.2K 1206 Resistor                           | Not critical                | Mouser 263-6.2K             |
| R3   | 1   | 820 1206 Resistor                            | Not critical                | Mouser 263-820              |
| J1   | 1   | RJ45 8-8 PCB Jack                            | SS-6488S-A-NF               | Digikey 380-1024-ND         |
| P1   | 1   | DB9 Male PCB connector                       | Kobiconn                    | Mouser 152-3309             |
| P2   | 1   | 2 pin Header                                 | Molex 22-23-2021            | Mouser 538-22-23-2021       |
| JMP1 | 1   | 3 Pin header                                 | Molex 22-03-2031            | Mouser 538-22-03-2031       |
|      | 1   | PacTec Enclosure                             | PacTec                      | Mouser 616-72906-510-039    |
|      | 1   | 1' Ethernet PATCH cable                      | !!! MUST be PATCH cable !!! | MyCableShop.Com CAT-350-001 |
|      | 1   | .1" jumper for header                        | Not critical                | Mouser 151-8030             |
|      | 1*  | 2 pin connector for CI-V cable               | Not critical                | Mouser 538-22-01-3027       |
|      | 2*  | Pins for above connector                     | Not critical                | Mouser 538--08-50-0114      |
|      | 1*  | 3.5mm plug for CI-V cable                    | Not critical                | Mouser 171-1041             |
|      | 1*  | Shielded or twisted pair wire for CI-V cable | Not critical                |                             |
|      |     |  |                             |                             |
|      |     | (* only if need CI-V interface)              |                             |                             |
|      |     |  |                             |                             |