

# CTRCB

## CTRCB Module

### Serial TTL to RCBus converter

CURCB is used to adapt an RCBus interface to Serial TTL (38400b).

In this way you can connect a tracker antenna like SATPRO to a dataLink from other brands, to use the Mavlink protocol in streaming.

Normally it is necessary together with [CURCB](#) and SATPRO when we use a Datalink from other brands that are not XLRS.

#### **Conections:**

It has two connectors, a more robust one for power and RCBus that connects to the SATPRO PC and a stereo RCBus Jack with TTL serial that connects to the Data Link.

For its complete operation it is necessary to use the [CURCB](#) module to connect the PC via USB.

It is powered by RCBus Connector from SATPRO.

**Warning:** Connections must be made only with the SATPRO turned off. If not, it is possible that the SATPRO or the fuse may break.

#### **RCBUS:**

SATPRO native communications. Use a special cable with power.

Speed: 1Mb. Synchronous binary packages.

IP8: 9

#### **Serial TTL:**



Level: TTL 0v to +3.3V.

Speed: 38400b by default or 115200b if necessary.

Bandwidth: 40kb. You cannot send a streaming with more than 4kbytes/sec even if the port speed is 115200b.

Serial TTL TXRX connector connection (Data Link):

Black: GND                      Base Jack

Red:    RX        (Out) Jack Tip

White: TX        (Inp) Half Jack

### **LEDs:**

On, turns on when you activate the SATPRO.

TX and RX. They light up when there is data to or from the DataLink.

### **Boot:**

Firmware updates.

Updated from [DMD\\_Studio software](#).

Boot is accessed when the device is connected during the first seconds or when you enter DMD\_Studio in Boot. [More info here](#).

To update SATPRO or CTRCB:

The USB from the PC must be connected to CURCB, this to the SATPRO and CTRCB, it is not necessary to connect the DataLink.



### **Functioning:**

2 modes:

- Boot.
- Streaming & commands.

### **Boot:**

When you start up, CTRCB is in Boot mode for a few seconds waiting in case you connect with DMD\_Studio to update the firmware. You can also enter boot mode when in

command/streaming mode, by forcing it from DMD\_Studio by pressing "BOOT" via USB and CURCB.



### **Commands :**

With the CURCB module in command mode and the CTRCB module out of Boot mode (flashing LEDs).

Connect to a PC with DMD\_Studio, it will identify itself and allow text commands from the DMD\_Studio console.

You can enter startup mode from here by selecting it under DMD\_Studio.

Commands can be sent to all devices connected to the RCBus such as SATPRO and CTRCB.

In the case of CTRCB you have to use the redirection in the console: "@PC>9"

Commands to change baud: "BAUD 38400" or "BAUD 115200"

### **Streaming:**



If it is connected to SATPRO and it is to CTRCB, when CTRCB receives data through its TTL Serial interface (38400b), CURCB will automatically change from command mode to streaming and will remain that way, ready for streaming (Mavlink protocol) until it is disconnected. the USB.

Streaming mode is when you can connect mission planning software like Mission Planner or QGround Control.

As the process of entering this mode is automatic, to work normally simply connect the RCBus, then the USB and activate the mission planning software. You shouldn't do anything else.

When data is transmitted from the autopilot and reaches the CTRCB module, this data will automatically reach the PC and the SATPRO so that it can orient itself automatically.

Please note that beforehand, SATPRO must be oriented to the North and then turned on.