

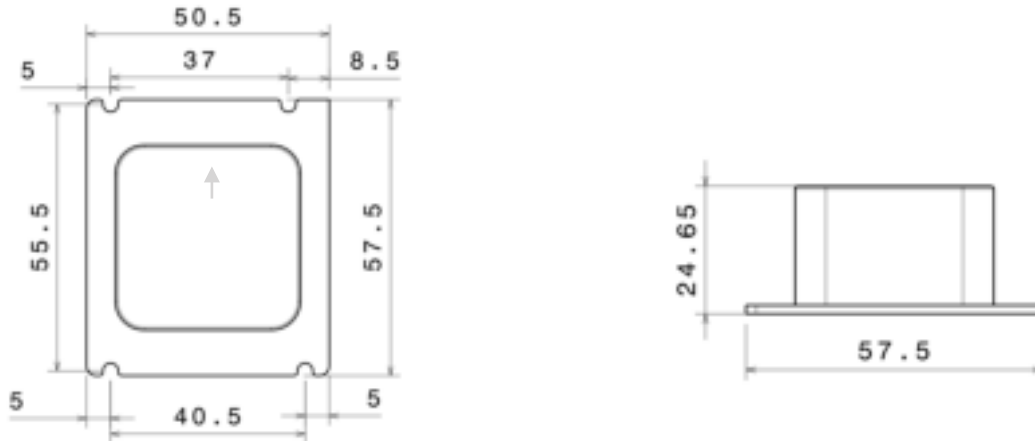


Cube mini carrier board v1.2  
USER GUIDE

## GENERAL :

The Airbot Systems Mini carrier board is one of the most simple way to install a Cube (aka Pixhawk 2.1) on a drone. The Mini carrier board encapsulate all the wiring in a 50.5x57.5mm board  
The carrier board allows saving space and weight for applications which have size limits.

## DIMENSIONS :



## FEATURES :

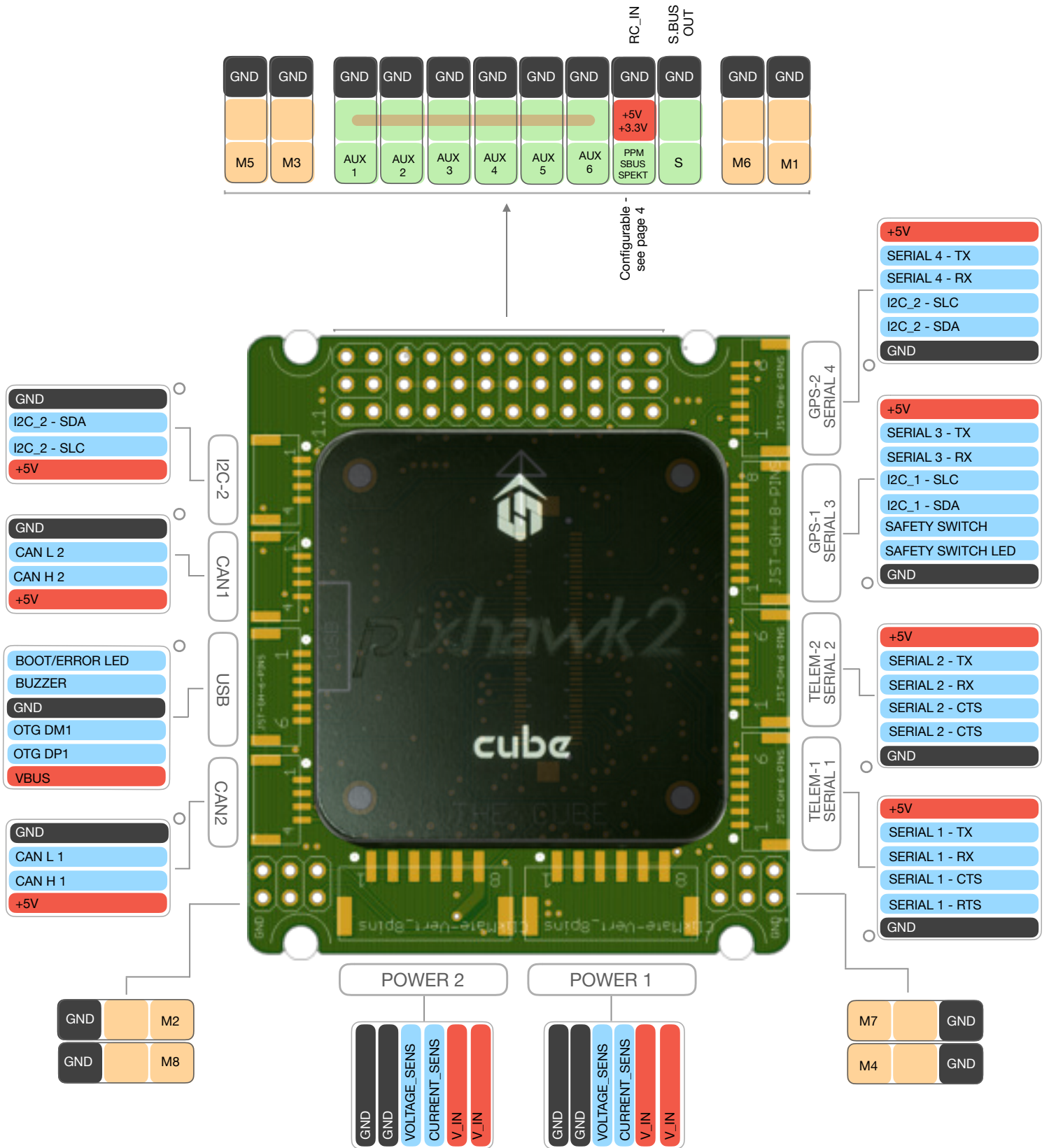
- Dual power inputs (redundant power with automatic switch to the second power source when first one fails, thanks to the Proficnc-Hex Power Selection Module // Power inputs must be between 5v and 5.7v)
- Easy to install on a drone (see the mounting pattern above)
- Power distribution & voltage protection (providing the current to each connector)
- Motors PWM signal distribution (up to 8 motors - distributed on board corners)
- Standard 2.54mm servo PPM/S.BUS/Spectrum RC input (+5v/+3.3v selectable and provided by the carrier board)
- AUX center pins are connected together. It allows to power the AUX rail by adding external power supply.

## CONNECTIVITY :

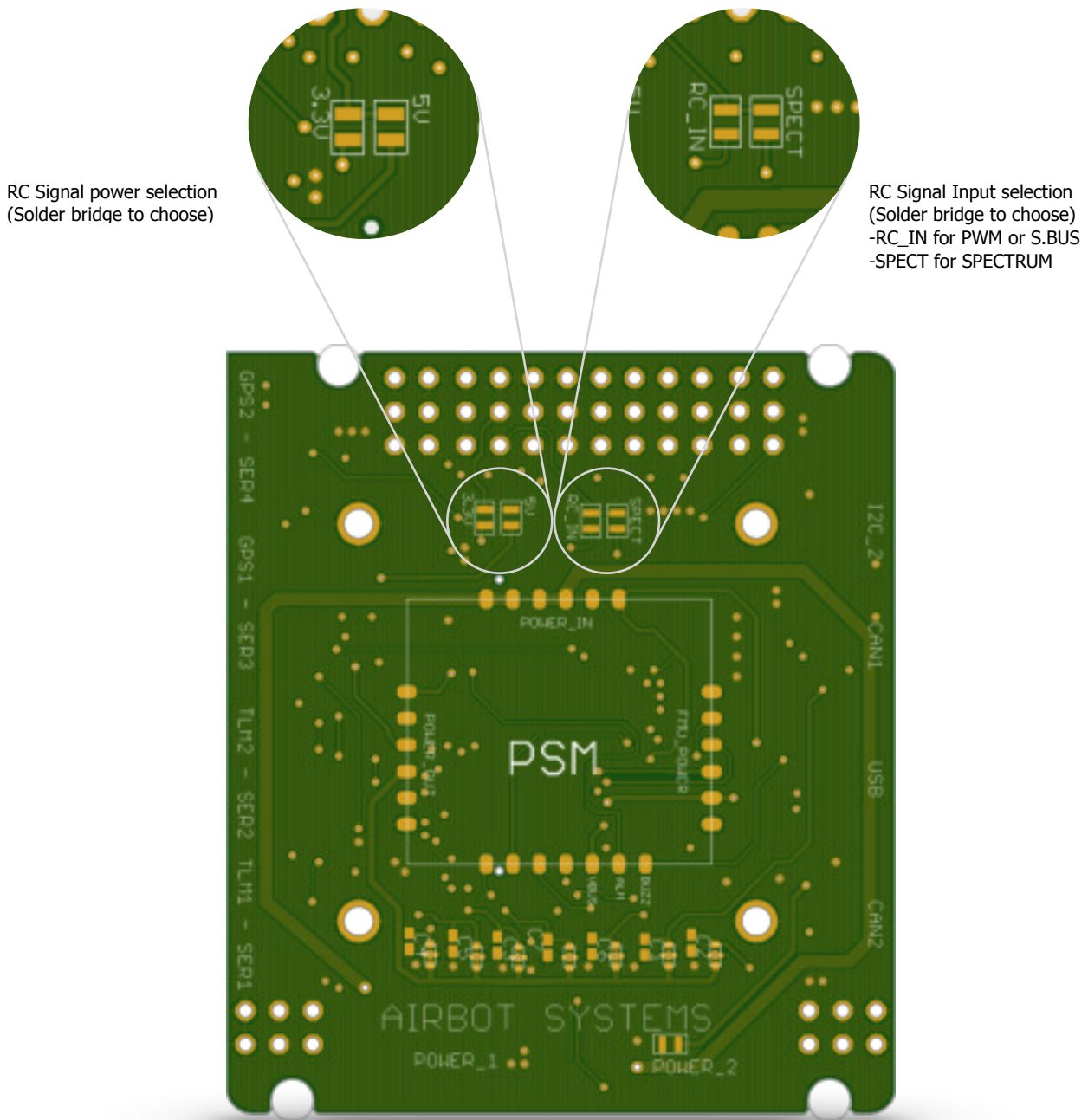
LABEL	CONNECTOR ON THE BOARD	CONNECTOR TO PLUG IN
I2C_2 - CAN1 - CAN2	<b>JST GH</b> : BM04B-GHS-TBT	GHR-04V-S
USB - TELEM1 - TELEM2 - GPS2	<b>JST GH</b> : BM06B-GHS-TBT	GHR-06V-S
GPS1	<b>JST GH</b> : BM08B-GHS-TBT	GHR-08V-S
POWER1 - POWER2	<b>Molex CLIKMATE</b> : 502443-0670	502439-0600

All connectors are the same than the Proficnc/Hex original Pixhawk 2.1 carrier board

**PINOUT DIAGRAM :**



## RC SIGNAL AND POWER SELECTION :



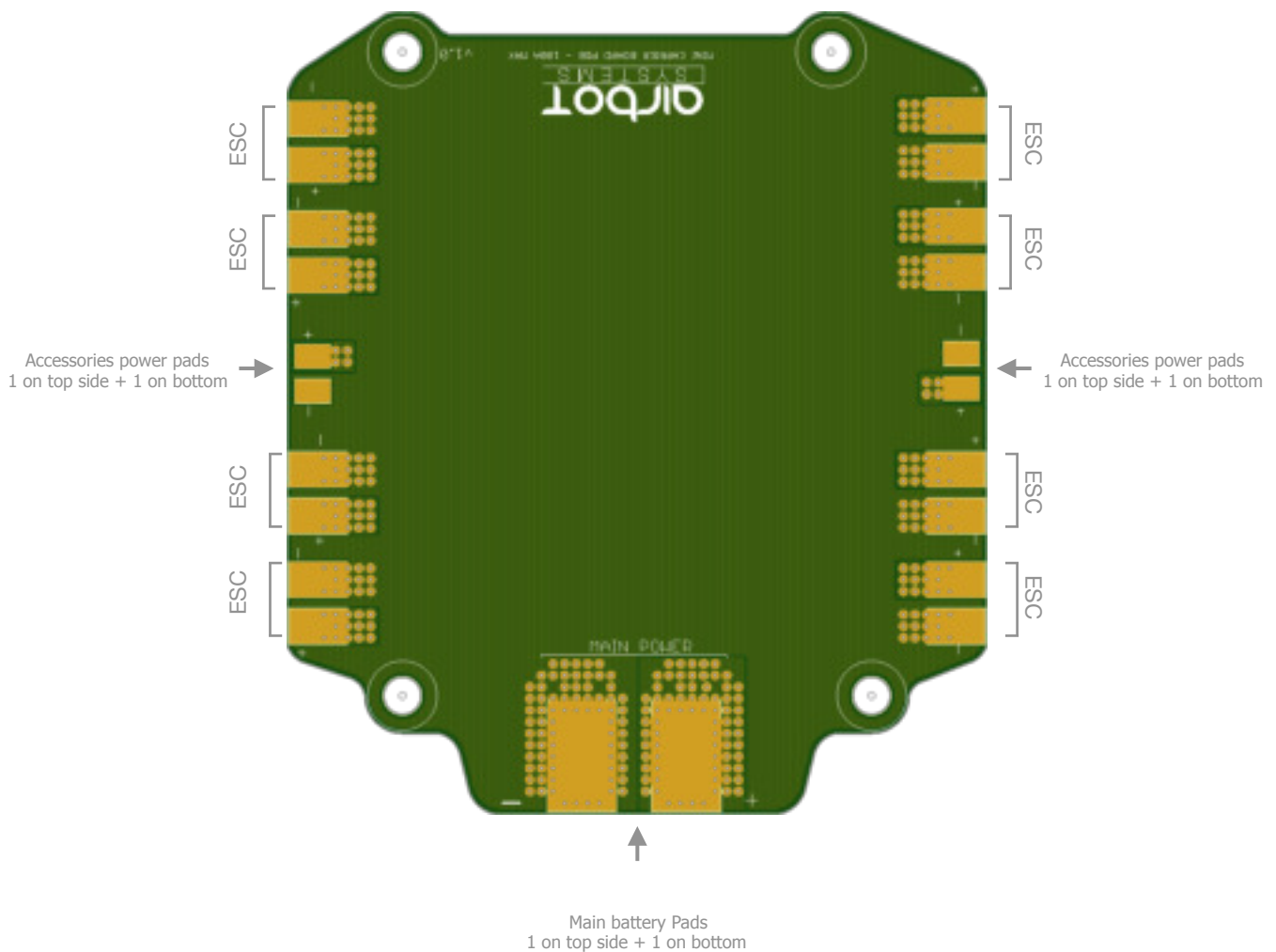
## HOW TO MOUNT IT :

You can make the fastener by yourself : if you have a 3D printer, you can download a 3D file to print the mounting bracket or download a .DXF file if you have a CNC milling machine. These files are downloadable from the product page on [www.airbot-systems.com](http://www.airbot-systems.com) website.

We are considering to manufacture fasteners and put on our website, for people who can not make it themselves.

**POWER DISTRIBUTION BOARD :** (optional)

The Airbot Systems Mini PDB is the best Mini Carrier Board companion. It allows to power up to height ESC with max total current @ 180A, and four pairs of small power pads (2 on top side / 2 on bottom) . The mounting hole are the same than the Mini carrier board, so the board can be stacked together, separated by small nylon spacers.



ATTENTION ! : The power board can not be attached to a conductive support. Be careful of respecting distance from any conductive material by using nylon spacers and or isolation stuff (e.g PlastiDIP)