BatShare

by Smart-Fly

The Smart-Fly **BatShare** enables you to use two battery packs and two switches to provide Dual-Redundant security to your airborne system, just like in full-size aircraft. With the Smart-Fly BatShare, you can tolerate a single failure (open-circuit, short-circuit, low voltage) in either battery pack, or switch, or battery wiring, without losing radio control.

The Smart-Fly BatShare continually monitors both battery packs and switches for the one with the higher voltage, and routes that to your Rx and servos. You may combine different size packs. In practice, with two good packs, the BatShare draws power equally from both packs, adding their individual capacities. I.e., if Battery #1 is a 6V/1350mAH pack, and Battery #2 is a 6V/2700mAH pack, you will have 4050mAH power supply onboard, with at least 1350mAH to fly on, in case of a failure.

Features:

- High current capability, 12A per input, 24A total
- Very Low Voltage Drop, 0.47V @ 6A, 0.55V @ 12A
- Visual power indicator (LED)
- All 22ga wiring on inputs and outputs
- Dual 22ga outputs for minimal voltage drop

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The normal way the BatShare would be used in a system is illustrated below. In the first case there are NiCd /NiMH two battery packs and two switches. The switch outputs go into the BatShare. The output of the BatShare goes into the receiver. In the second case, the battery packs can be NiCd/NiMH or Li-ion/Li-polymer because a regulator is used. The regulator goes between the output of the BatShare and the input of the receiver. There are other ways that the BatShare can be used that are not illustrated here.

CAUTION: The BatShare will not equalize load current between two regulators. If you were to put two regulators on the output of the two switches and run the outputs of the two regulators into the BatShare and then to the receiver, one battery will drain faster than the other due to the regulators' inability to share current equally.