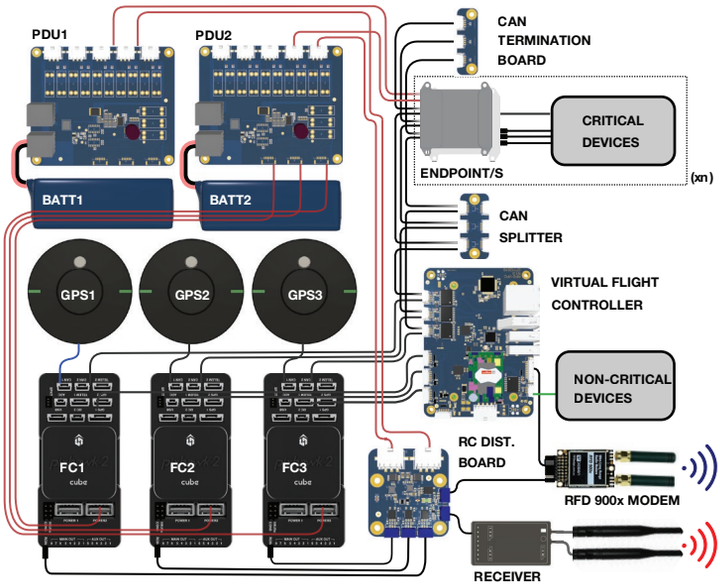
RFDESIGN
AUTOFLIGHT

AF
SERIES

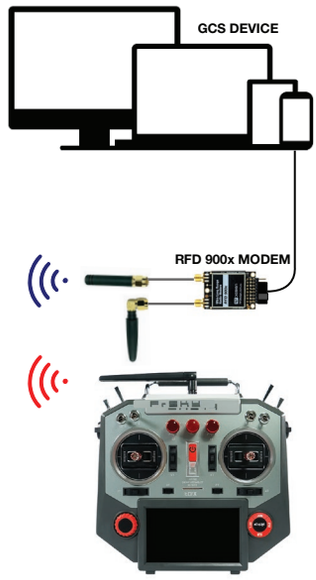
NO SINGLE POINT OF FAILURE.

THE AF3 WILL BE THE LATEST IN A FAMILY OF VEHICLE CONTROL AND AND MANAGEMENT SYSTEMS WITH INTEGRATED, MULTIPLE REDUNDANCY SOLUTIONS DESIGNED TO PROVIDE SAFETY AND RELIABILITY IN A HIGHLY CONFIGURABLE PACKAGE.

AF SERIES SYSTEM*



OPERATOR SIDE



*AF3 SHOWN

NO SINGLE POINT OF FAILURE

Designed based on a non-single point of failure approach, the AF Series is able to cope with all single failures and several dual and triple failures* (Depending on the nature of the failure at hand, however, the performance or remaining flight time may be shortened).

3 ISOLATED CAN BUSES

The AF Series presents up to three independent and isolated CAN buses to eliminate ground loops, to provide high noise immunity, and short & open bus redundancy, greatly simplifying the wiring.

UP TO 3 FLIGHT CONTROLLERS & DISTRIBUTED ARBITRATION SYSTEM

With up to three flight controllers, each with its own independent set of sensors, a distributed arbitration system actively chooses the best flight solution at any given time. Due to its distributed nature, the system can always choose and seamless change over among flight solutions even when some subsystems are not operational.

POWER PROTECTIONS & REDUNDANCY

Any power failure is isolated and alternative power flow provided whenever possible to ensure the system is secure against over-voltages, under-voltages, over-currents and short-circuits.

FAILURE ISOLATION AND SELF-CORRECTING PLATFORM

Moreover, the system is able to identify failures such as engine failures and actively rearrange the thrust and surface characteristics of the remining control actuators to provide optimal flying capabilities.

SIMPLE INTERFACE TO GROUND CONTROL STATION

The virtual flight controller concept has been introduced to interface the three-flight controller system to the ground control station in such a way that to the operator, he/she is only flying one aircraft, greatly reducing the learning curve and minimizing the necessary training.

Relevant flight controller status messages are sent back via telemetry link so the operator rapidly becomes aware of failures in any of the avionics subsystems.

MODULAR AND SCALABLE

It has been designed to be modular and scalable which means you can adapt it to almost any platform, just by adding or removing subsystems.

COMPATIBLE WITH NON-CAN SUBSYSTEMS

Moreover, the system presents multiple interfaces to control other subsystems not necessarily compatible with CAN USART/GPIOs/PWM/I2C/CAN.

RF DESIGN AUTOFLIGHT

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