



Maxi Flex® Circuits in Aerospace Applications

**Reduce Weight and Save on Space with
Extended Length Flex Circuits**

FLEX | RIGID FLEX | HEATERS | ASSEMBLY

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Application:

Reducing weight with Maxi Flex® circuits in Unmanned Aerial Vehicles (UAV).

Weight savings in the aviation industry are critical. More so with an aircraft that is powered by something other than fossil fuels. Each gram of weight relates directly to more time in the air.

All Flex directly helps to support this industry and strives to conquer this challenge by offering extended length Maxi-Flex® flex circuits which offer distinct advantages over a discrete wire harness:

- **Weight saving** - Utilizing an extended length Flexible Printed Circuit (FPC) can reduce overall form factor, reducing weight.
- **Labor savings** - Cutting, stripping, crimping, assembling, and testing complex wire harnesses can be an extremely labor intensive process. Extended length FPC's eliminates this.
- **Controlled impedance** - Extended length FPC's can be designed for high-speed applications.
- **Interconnect options** - FPC's allow for more interconnect options including surface mount (SMT), through-hole, zero insertion force (ZIF), crimped pins, exposed pads; or any of these in combination.
- **Multilayer and Shielded circuits** - Additional copper layers for signals or for shielding can be added to extended length circuits. As can different types of conductive shielding films.
- **Heat** - All Flex can fabricate extended length etched foil heaters.

In this particular application the Maxi Flex® was 7'9" long and weighed 44 grams, in comparison a wire harness with the same number of conductors and current carrying capability weighed 90 grams. This is a total weight savings of 51%.



Disclaimer:

Data presented for informational purposes only. Actual values and/or usage is for reference. Contact All Flex for details.