

## Performance Through Integration.

**HARP:** Next generation of Interconnect solution for **the Even More Electric & Hybrid Electric Aircraft.**

Within the scope of **Clean Sky 2 a European Community funded research program**, a call for proposal for High Density Electrical Connectors has been issued by SAFRAN / ZODIAC, the topic leader, the project name is called UBBICK / Cockpit Utility Management.

**Amphenol Air LB and Radiall** partnered and created HARP to support the project with a new and innovative product.

Avionics and Main & Secondary Power distribution systems are becoming more distributed around the aircraft, more interconnected and more interactive.

The increase of Electrical Power generated and required by the Even More electrical Aircraft is leading to interconnect systems having to deal with a lot higher amount of data and signal and more power than ever before.

Moreover, the size and the weight reduction of a system and the constant increase of the volume of data exchanges within aircraft networks have stimulated the need for high-speed electronics.

As a result, the design of systems faces a challenging environment, most notably in the preservation of the integrity of the high-speed signal throughout the system stacks.

All this within an Open architecture, sharing generic resources environment.

Conversely the physical size of those Systems is dramatically shrinking, leading to radical changes of size of the blades and the architecture of cabinets.

The challenging requirements generated by the next generation of architecture are leading to the development of a new type of board level inter-connection which has to be:

- compact in size
- high performance
- scalable
- robust
- modular
- easy to install
- light weight
- cost effective

**HARP** allows for a robust and small form factor combination of various modules providing a mix of power, high speed, fiber optics, High density, within a 1 inch and 3U or 6U format.

Modules can be fitted with press-fit signal contacts, in order to cope with multi-layers printed circuit boards.

**HARP** will accept new modules that will be created when needed in the format in order to address new configurations and future requirements.

As part of **HARP** original design, an innovative "direct to cable harness" tool-less interconnect solution has been developed to further reduce the overall dimensional envelope of the cabinets and make final assembly on board the aircraft as compact and simple as possible.

PLEASE CONTACT US for more details on this new exciting product.



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