Space-Rated Interconnects & Value-Added Services
AirBorn components have over 4 decades of spaceflight heritage.

Engineering & Manufacturing Electronic Component Solutions Since 1958

AirBorn is an employee owned company whose core business is engineering & manufacturing specialized connectors & electronic components for OEMs worldwide. We serve customers across many industries including: Commercial Air, Industrial, Medical, Military/Defense & Space Exploration.

AirBorn components are a part of many historical space applications. Beginning with the Apollo missions and extending into the Voyager I & II space vehicles, Space Shuttles, International Space Station, Hubble Telescope, Mars Rovers and innumerable Earth-orbiting satellites. Customers trust AirBorn products and have since our inception in 1958.

From deep sea to deep space, our innovative interconnect, value add & box build solutions are chosen by leading companies in space exploration to operate their most critical systems, in the most hostile environments.
Rugged & Reliable Interconnects

AirBorn’s W-Series, R-Series, M-Series & N-Series connector families have all been launched aboard vehicles into the vastness of space — but the list won’t end there. Our high-speed verSI family, ideal for high-vibration signal integrity applications, is being designed into future missions as is our Series 360° circular interconnect family.

Key features and materials used in our interconnect design which make them ideal for the severities of space exploration include:

- All assemblies meet NASA’s out-gassing specifications
- Pure tin is never used in assemblies destined for space applications
- Ruggedized, multi-point contacts for extreme environments

Our interconnects are designed to withstand the rigors of not only space flight but launching, landing and operating in worlds beyond our own.

*Series 360 connectors are currently available in North America only.

www.airborn.com/markets/space
Flexible Circuit Assemblies

AirBorn manufactures flexible circuit assemblies for many applications but it’s particularly useful where product weight and intricate 3D routing is a design concern, such as within space vehicles.

For Lockheed Martin, we manufactured flexible cable assemblies exceeding 63 feet in length for their Multi-mission Modular Solar Array (MMSA). Array thickness was reduced from .75” - 1” in a typical rigid panel down to 0.002” thick in the MMSA. This new design is a component of Lockheed Martin’s LM2100 satellite bus program, created to harness the unlimited power of the sun, much like the solar arrays on the International Space Station.
Custom Cable Assemblies

AirBorn’s custom designed cables, utilizing our product and technology, meet rigorous space-rating requirements emphasizing quality, reliability and higher levels of performance. AirBorn provides design-in support to meet the high demands of the space market, while supporting all testing and program management endeavors. We test our cable assemblies to certify total dependability. Tests include: data transmission simulations, vector network analyzation (up to 50 gbs) to correlate simulation data to actual performance, in-circuit probing testing for post-production assemblies and PCB design/fabrication for validation of assemblies and components.

We’re also proud to offer our FOCuS® brand of Space-Rated Active Optical Cables (SAOC®). Built on our proven, high-speed verSi connector platform, SAOC® exemplifies all the benefits of fiber with the ease & reliability of copper.

AirBorn manufacturing operators are NASA 8739.4 and IPC620 certified and trained to manufacture product for the space exploration market.
Complete Custom Chassis/Box Builds

AirBorn can design and manufacture high-level electro-mechanical and complete chassis/box build assemblies according to your project’s specific needs. Our Model-to-Market® service means we take our customer’s most basic product idea and foster it through design, development, testing and mass production. Our extensive testing ensures your product consistently performs to expectations and is ready to take on the severities of space flight.

Processes to ensure the quality of your build:

- Cable & harness integration
- Detailed material planning & logistics management
- Multi-plant capabilities accommodate volume orders & on-time delivery
- Procurement & inspection of standard/custom parts
- UL & CSA certified manufacturing facilities

We fabricate many complete builds for our customers in space exploration. Each were manufactured to endure the punishing environs of rocket launches and space flight and reliably stand ready for more.
Engineering & Lab Services

AirBorn employs 50+ degreed engineers in-house to assist in design and product development; expertly guiding from inception through mass production. AirBorn utilizes an A2LA accredited* laboratory to test against the highest standards imaginable to ensure our products stand up to the rigors of space exploration. From extreme temperature fluctuations to vibration & shock tests that simulate a violent launch, we design unmatched quality into our interconnects and cable assemblies to withstand a bumpy ride.

When your goal is to explore new worlds with unforgiving environments or achieve the longevity required to travel decades through interstellar space — count on AirBorn quality to get you there.

- Contact Engagement & Separation Forces
- Contact Retention/Wire Retention
- Dielectric Withstanding Voltage (Sea Level & Altitude)
- Durability
- Insert Retention
- Insulation Resistance
- Low Signal Level Contact Resistance
- Mating & Unmating Force
- Resistance to Soldering Heat
- Shock
- Solderability
- Temperature Cycling
- Vibration
- X-Ray/CT imaging & inspection

*Not all testing listed above is included in our A2LA Scope of Accreditation. Please consult A2LA Certificate #4132.01 for a list of accredited tests.