

AirFi's connectivity for any budget

This is a special feature from *PAX Tech's* [September 2023 APEX EXPO](#) issue on [page 31](#).



Jalal Zriouil, AirFi's Vice President of Customer Success (left) accepted a PAX Tech Readership Award at the 2023 ceremony in Hamburg, Germany. Pictured here with *PAX Tech* Publisher Aijaz Khan

You may have heard these maxims before: size isn't everything; the bigger the better, right? Well, when it comes to antennas delivering inflight connectivity, size *does* count — and solutions with a small footprint are gaining well-deserved attention.

[AirFi](#) and its AirFi LEO connectivity platform exemplify this small-size approach.

As a result of the expert capabilities of [Iridium](#), which provides access to its network of low-Earth orbit satellites, [SKYTRAC](#), which produces the antenna based on its modular midband solutions, and AirFi which brings the solution together with its portable AirFi box, AirFi LEO is a simple and effective solution for regional carriers seeking to offer LEO connectivity to passengers.



AirFi CEO, Job Heimerik.
Image credit AirFi

The solution has been trailed by [Atlantic Airlines](#) and picked up by [Suriname Airlines](#) — the first in the Americas to do so — with AirFi CEO Job Heimerikx revealing at this year's [Aircraft Interiors Expo \(AIX\)](#) that there are more than a dozen airlines currently testing the solution, with adoption expected thereafter.

“We can’t wait to see what airlines and passengers think of the benefits delivered by AirFi LEO as it takes to the skies in the very near future,” he said on the fringes of the June event.

While gaining interest with airlines, AirFi LEO was also recognized with a *PAX Tech* Readership Award for Technology during a joint awards celebration in collaboration with TravelPlus at the Radisson Blu Hotel in Hamburg on June 6. The award was accepted by Jalal Zriouil, AirFi’s Vice President of Customer Success.

AirFi LEO was originally unveiled back in 2018 when it was based upon the Iridium Network using Databurst technology to send small packages of data to the ground and back to the aircraft. Following a pause in development due to the COVID pandemic and encouraged by the introduction of the Certus LEO network and its availability to the aviation industry, the second generation of AirFi LEO uses an IP connection to send more data over the network. This means larger amounts of data packages, such as credit card authorisations, emails and text messages.



The AirFi LEO antenna is smaller than a pen and doesn't require any supplemental type certificate (STC) to be installed.

Image credit AirFi

Those behind the solution point to its minimally invasive footprint as a key differentiator and attractive business case.

AirFi LEO harnesses the power of the Certus through a proprietary window-mounted antenna based on SKYTARC's hardware, which is smaller than a pen. Having a 330-degree view, the antenna is always connected to a satellite. Certus is already being used as part of 6,500 maritime systems every day, and the three partners are confident it can gain significant traction in the aviation industry.

This installation is considered a minor modification — no drilling in the aircraft fuselage is needed — for which AirFi has prepared all the necessary paperwork. The solution can be installed overnight. Once installed, AirFi LEO adds no more than 1.5 lbs per single-aisle aircraft.

The product brings connectivity to AirFi's portable inflight entertainment solution, AirFi box. According to Heimerikx, this enhancement delivers 90 percent of the functionalities that make up an airline's business case for investing in connectivity such as text messaging, payment processing and flight deck updates amongst others, at around 10 percent of the cost of traditional Ku- and Ka-band offerings.

Compared to traditional Ka or Ku-band networks, AirFi LEO delivers data between 22-88 k/bits per second. This data link allows for access to aircraft ACARS transmissions at a lower cost and electronic flight bag updates with optimized routes and improved weather forecasting capabilities. AirFi and SKYTRAC hosted live demonstrations of these features at this year's [Electronic Flight Bag \(EFB\) Users](#)

[Forum](#) in Calgary in June.

Flight crew can send and receive passenger information and obtain details about connecting flights—small but significant wins for passengers. Onboard services can also be enhanced by air-to-ground messaging enabling constant contact with catering and MRO teams.

The big selling point of AirFi LEO is the prospect of payment processing. Using real-time connectivity, live transaction verification overcomes rejected payments (often between two to eight percent of all transactions onboard) and removes limits on what can be sold during a flight. Now, airlines can offer a fuller product catalogue that goes beyond the traditional F&B and duty-free range. This includes onward transportation, hotel accommodation and even the ability to book entrance to events/attractions and restaurant reservations.

Costs of the solution can be offset by more targeted advertising and offering paid access to messaging services. This internet lite approach allows passengers to send and receive text-based emails (without attachments) and access live RSS feeds.

As AirFi states, AirFi LEO is part of its grand vision to connect people and enable airlines to do more for less.