Cable-Based Antennas Improve Passenger In-flight Access to Wireless Networks

W. L. Gore & Associates has developed new cable-based antennas (often referred to as leaky lines or leaky feeders) [1] that improve signal propagation without increasing the amount of hardware required on an airplane. Ideal for both wide-body and single-aisle passenger aircraft, GORE® Cable-Based Antennas provide reliable access to different wireless protocols so passengers can easily connect to in-flight entertainment, Internet servers, and email accounts.

GORE® Cable-Based Antennas are easily installed along the length of the cabin ceiling, and with signal propagation occurring every meter along the antenna, passengers are assured reliable access, regardless of their location in the plane. Passengers' signals are transmitted via a signal network computer and outside antenna to satellites that connect to the worldwide network.

Unlike typical broadband technology that requires separate hardware for each type of wireless access, the versatile GORE® Cable-Based Antenna reduces airline costs because the antenna requires only one set of hardware to service the entire aircraft, regardless of its size. This lightweight antenna offers a single solution for providing connectivity for a variety of electronic devices. This antenna sends and receives signals in frequencies ranging from 400 megahertz to 6 gigahertz, which makes it compatible with numerous communication standards, including Bluetooth, DECT, DECT2, Global Star, GSM, IRIDIUM Sat, MMS, PDC, TETRA, UMTS, WLAN 802.11 a/b/g, and WiMAX.

Constructed with unique, engineered fluoropolymers in a lightweight coaxial cable, the GORE® Cable-Based Antenna meets all shock, vibration and fire specifications, including AirBus ABD0031 and FAR Part 25.1359(d). Available in lengths of more than 65 meters, they require no maintenance for the lifetime of the aircraft.

According to Helmut Seigerschmidt, Gore's European product leader for aerospace applications, the GORE® Cable-Based Antenna is the premier choice for wide-body aircraft.

www.gore.com/aerospace [2].

Posted by Sara Cohen, Editorial Intern

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