5-D Systems, Inc.

Committed to Success. Focused on Excellence.

Broadband On Aircraft (BOA)
Integrated Solution - Product Family

Providing instant Ethernet networking using existing wiring in legacy aircraft and other air, sea, and land platforms

The Broadband on Aircraft (BOA) product family provides an affordable solution (in both cost and schedule) to integrate modern avionics (or other hardware) on an existing host platform. The BOA product family leverages commercial powerline networking technology to dual purpose existing power, signal, and bus wiring into an Ethernet network, while retaining their baseline functionality.

An example implementation (shown above) is integration of a modern wing-mounted, targeting sensor that communicates with a mission LRU located in the forward avionics bay. Baseline aircraft wiring does not support the requisite high-speed data transfers. A BOA transceiver pair is installed in the avionics bay and near the wing pylon, interfaced locally with the wiring harness, and establishes the desired high-speed bus. No more extensive aircraft down time to route and run new wiring!

KEY FEATURES

- Militarized Power Line Communications (PLC) technology
- Throughput up to 550Mbps
- Non-interfering with existing platform systems
- Simultaneous communications over 1553 data busses, AC and DC power busses, or discrete wiring
- Ruggedized for harsh air, sea, and land environments
- Designed/tested to MIL-STD-810G and -461F
- Flight tested
- Operations (tailorable) from AC or DC power, including 400Hz AC power
- Small volume (< 28in^3, all variants)
- Light weight (< 17oz, all variants)
- Low power (< 4W, all variants)

For more information, contact:

products@5dsystems.com

5-D Systems, Inc.
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Integrated Solution
Broadband On Aircraft (BOA™)
Data Sheet

BOA™ Specifications

- Ruggedized Ethernet Transceiver
- Employs Militarized Commercial Power Line Communications (PLC) Technology
- Meets DO-160 'Fixed Wing' Specifications
- IP-67 Sealed
- Lab and Aircraft Tested
- Provides up to 70 Mbps Throughput
- Provides 60 Mbps over 1553 Data Busses, Power Busses, or Discrete Wiring
- Non-interfering with Existing Systems
- Requires less than 3W of Power
- Operates from 115VAC or 28VDC

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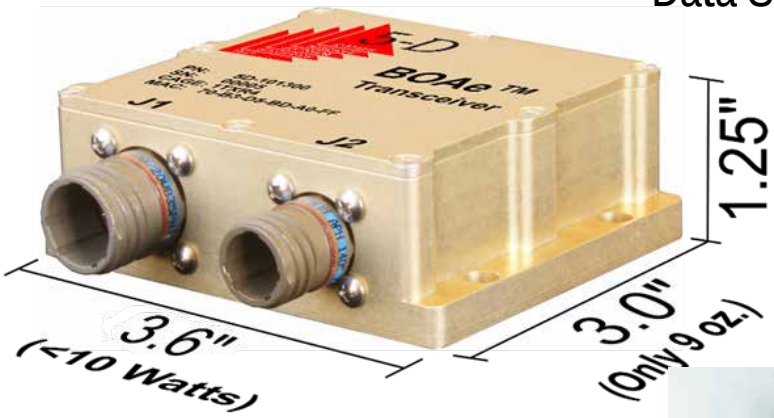
Integrated Solution
Broadband On Aircraft (BOAe™)
Data Sheet



BOAe™ Specifications

- Ruggedized Ethernet Transceiver
- Employs Militarized Commercial Power Line
- Communications (PLC) Technology
- Designed to MIL-STD-810G, -461F, & -704A
- Lab and Aircraft Tested
- Provides up to 250 Mbps Throughput
- Provides 200 Mbps over 1553 Data Busses, Power Busses, or Discrete Wiring
- Non-interfering with Existing Systems
- Requires less than 4W of Power
- Operates from 28VDC
- Weighs only 9 ounces

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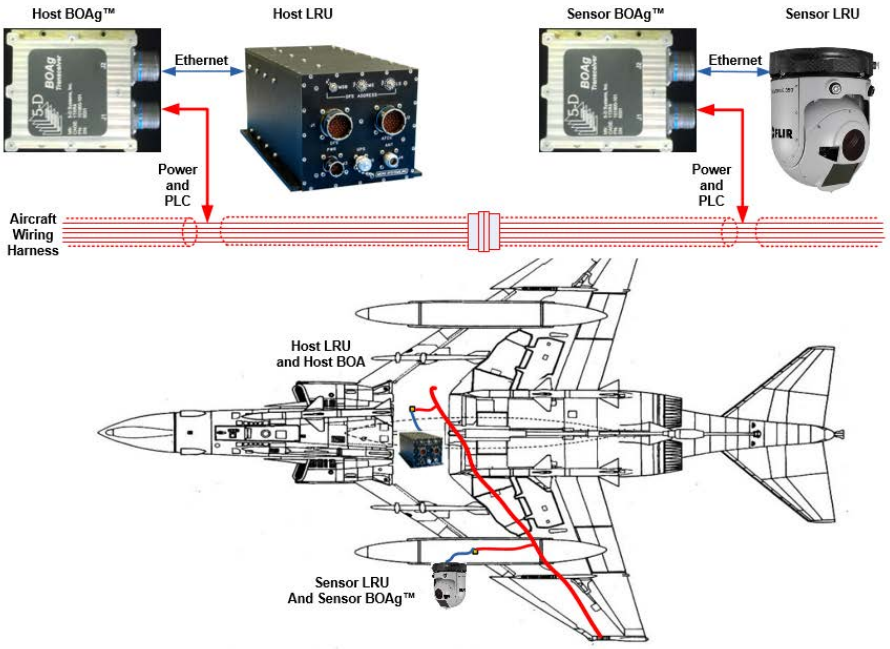
Integrated Solution
Broadband On Aircraft (BOAg™)
Data Sheet



BOAe™ Specifications

- Ruggedized Ethernet Transceiver
- Employs Militarized Commercial Power Line Communications (PLC) Technology
- Designed to MIL-STD-810G, -461F, & -704A
- Flight Tested
- Provides 350 – 550 Mbps Throughput
- Simultaneous communications over 1553 Data Busses, AC/DC Power Busses, or Discrete Wiring
- *Non-interfering with Existing Systems*
- Requires 4W of Power
- Operates from 115VAC or 28VDC
- Weighs only 17 ounces

For more information on BOAg™, contact:
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