The **avRDC Remote Data Concentrator** is the culmination of Avionica’s decades of experience in digital aircraft databus communications. avRDC provides an interface platform with a wide array of airborne databuses and the processing muscle to support a variety of functions based on a customer’s specific requirements. avRDC is a foundational product in Avionica’s Wired Aircraft Concept.

The avRDC platform is another Avionica product based on our reliable System-on-Chip (SOC) architecture. Its design is based on our highly successful miniQAR Mk III Quick Access Recorder. The avRDC is a variant of that design, with increased interface capabilities, the same dual processor, and Linux OS. Certifications for the avRDC parallels the miniQAR.

**Data Concentrator/Aircraft Interface Device**

As launch customer for the avRDC, Gulfstream Aerospace provided specific requirements to configure the device as a Remote Data Concentrator for their G650 business jet. In this configuration, the avRDC samples data from a variety of databuses and concentrates the output into a formatted data stream on an Ethernet channel after processing the data according to specific algorithms. Similar custom applications are possible.

**Quick Access Recorder/TWLU/Router**

The avRDC is an advanced Quick Access Recorder. Numerous channels of ARINC 429, EIA RS-422/RS-232 and Ethernet are available, in addition to the ubiquitous ARINC 717. Twin SD card slots currently provide up to 256 GB of industrial grade memory storage. Modules are available for both 3G and WiFi interfaces.

The avRDC’s ability to bridge its cabin WiFi access point and 3G terminal wireless uniquely qualifies it for duty supporting Apple iPad™ Electronic Flight Bags (EFBs) – or any other devices (wired with Ethernet or wireless). Our avSYNC data synchronization service schedules both QAR downloads and uploads to the avRDC for later retrieval by connected onboard devices.

**Airborne Dataloader**

Avionica introduced the avRDC as an airborne dataloader. Loaded with our LOAD615 and/or LOAD615A software, it can use an available MCDU port as a user interface. Connect several devices directly or use any installed onboard dataloader switch. Synchronize data from your technical publications to the aircraft with Avionica’s avSYNC data synchronization service.

**Wireless Airborne Server**

With multimode wireless, three switched Ethernet ports, up to 128 GB of solid state storage, a Linux OS, and a basic weight of about 17 oz. (480 gr.), avRDC is a reliable wireless airborne server. avRDC supports numerous airborne applications and keeps content up to date with Avionica’s avSYNC data synchronization services.

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**Avionica, Inc.**
9941 West Jessamine St.
Miami, Florida 33157 USA
Phone: 786-544-1100
Fax: 786-544-1110
Email: sales@avionica.com
sales-eu@avionica.com

**We’re Ready to Help**
Whatever you need, Avionica is ready to help. Our team will work with you to meet your data and communications management needs.
www.avionica.com
**Wireless Configuration**

**Dataloader Configuration**

**Technical Specifications**

**Size/Weight**
- Dimensions: 7.0” (L) x 4.5” (W) x 2.0” (H)
- Weight: 17 oz.
- Power: 28 VDC: 400mA Max

**Options**
- 802.11 a/b/g/n WiFi Wireless module
- 3G (4G in Q4 2012) Wireless module
- QAR Function
- iPAD™ Support, HTML5 MCDU Interface

**Applications**
- avRDC QAR Configuration with 3G Terminal Wireless & WiFi Cabin Wireless
- avRDC Airborne Dataloader Configuration with LOAD615 & MCDU Interface

**Interfaces**
- 804-1250-10 804-1250-20
- ARINC 429 TX/RX 3/9 6/9
- ARINC 410 Discretes 10 10
- ARINC 717 RX (Biphase or RZ) 1 1
- RS 232 TX/RX 3/5 4/5
- RS 422 RX 2 2
- DO 210 Audio Inputs 2
- Full Duplex Managed Ethernet 3 6
- Ethernet Security Domains 2 3
- GSE Port Ethernet USB 2.0
- Removable SD card bays 2 2

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