

miniQAR Mk III

with Optional avCM 4G Wireless GSE Module



Avionica's miniQAR Mk III packs a lot of capability into the smallest of spaces. In the 1990s, Avionica introduced the original miniQAR, the first miniature Quick Access Recorder for aviation. Featuring solid-state reliability, 400-hour recording capacity, and easy installation, the miniQAR changed flight data recording (and perhaps FOQA/FDM) forever.

Reliable Performance

Our solid-state 'System on Chip' architecture has achieved a field proven MTBF of over 100,000 flight hours for miniQAR series recorders, saving valuable maintenance dollars. Over 5,000 miniQARs have been installed and are flying in over 150 aircraft types worldwide.

Advanced Interface

Download options include Ethernet (via the RSU-II or COTS Laptop/Desktop), onboard Ethernet, and Wireless via WiFi or 4G Wireless GSE (Ground Service Equipment) Module to enable operators to customize download methods to best fit FOQA/FDM programs and schedule requirements.

Light and Easy Install

With STCs on over 150 aircraft types, the Mk III installs on most aircraft with minimal alterations using our universal installation kit. Mounting trays for simple, rack-mount QAR replacement are now available with either ARINC 404 or 600 series connectors. With all these capabilities, the miniQAR Mk III still weighs only 6.5 oz/185 gr.

High Capacity

Our basic 2 GB models record up to 6,000 flight hours of ARINC 717 data. Upgrades to 64 GB handle dense ARINC 429 data recording requirements.



Shown with optional avCM 4G unit

Actual size

Flexible Recording

A variety of interface options are available. Record one ARINC 717 (Harvard Biphasic or Bipolar RZ) channel and up to three ARINC 429 channels (high and/or low speed). An EIA RS 422/429 programmable channel supports ACMS event recording. An EIA RS-232 receiver is also available.

Data on Demand

Avionica's avCM 4G Wireless GSE module for the miniQAR Mk III includes a quad band HSPA+ 4G Cell Module which transfers data on demand with worldwide coverage. The 4G transfer speed enables the fastest data transmission without any infrastructure investment. The 30 second/flight hour download speed is ideal for high performance global roaming.

4G Wireless Gateway (optional)

When equipped with the 4G Wireless GSE Module and optional software, the Mk III provides additional functionality as a wireless gateway. The miniQAR provides ground-based broadband access to various onboard devices, such as EFBS, airborne servers, maintenance terminals, and more.

Call us today to discuss your QAR needs.

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REAL INNOVATION...REAL SOLUTIONS.

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



avSYNC

miniQAR Mk III

Shown with optional avCM 4G unit



ETHERNET

Ground-Based
Broadband



Avionica Support
Utility Software

Technical Specifications

Size/Weight

Dimensions:	3.25"(L) x 2.25"(W) x 2.20"(H)
Weight:	6.5 ounces
Power:	3 Watts

With 4G Wireless GSE module

Dimensions:	4.55"(L) x 2.25"(W) x 2.20"(H)
Weight:	10.5 ounces

Data Storage

- 2 Gigabyte, m-SD, removable and upgradeable (RPU data)
- 2 Gigabyte, SD, removable and upgradeable (APU data)

Part Numbers

Description	Part Number
Boeing Std Type I, ARINC 717, 115VAC	804-1201
Avionica Std, ARINC 717, 115VAC/28VDC	804-1205
Avionica Std, ARINC 429/717, 115VAC/28VDC	804-1205-03
Avionica Std, ARINC 429/717, RS 422/232, 115VAC/28VDC	804-1212

Wired Speed (Ethernet):

10baseT, Up to 60 Mbytes/Minute.
Can be downloaded on or off the aircraft

Wireless Speeds (4G)

Up to 1.6 Hrs. Flight Hr./Min. (256 Words per Second)
Upload: Up to 7.2 Megabits per Second

Real Time Clock (RTC)

Standard. Time and Date are tagged automatically.

Aircraft Bus Compatibility

- 1 ARINC 573/717 Harvard Bi-Phase receiver
- 1 ARINC 573/717 Bi-Polar Return to Zero (BPRZ) (Both with 64, 128, 256, 512 & 1024 WPS Autodetect)
- Up to 3 ARINC 429 receivers
- 1 EIA RS-422/ARINC 429 port; 1 EIA RS-232 receiver

Connector

miniQAR Mk III to aircraft: MS83723/76R1415N, MS83723/76R1624N or equivalent (typical)
Front Connector: HDMI-type

Certification

DO160 Categories - C1XXXB[SCL]
XXXXXXZZAZB[UUU]H DO178B Level D

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