



Modular Airborne Data Recorder/Acquisition System

The L3 Modular Airborne Data Recorder/Acquisition System (MADRAS) is a highly reliable, single-LRU (Line Replaceable Unit) which is custom configured for data acquisition as a recording solution for helicopters, business aircraft, unique-mission and military aircraft. The FA2200 records at 256 words-per-second (wps) for a minimum of 25 hours. The FA2300 has the same data acquisition as the FA2200, but also has the capability to record 4 channels of high-quality audio for up to 2 hours.



FEATURES

- Data acquisition and data input/output tailored to each aircraft
- Single-LRU provides flight data acquisition with data recording and optional voice recording
- Up to 2 hours of high-quality audio recording (four channels) and a minimum of 25 hours of flight data recording at 256/512 wps
- Field experience MTBF > 20,000 hours (dependent upon operational environment)
- Wide range of analog, digital and discrete inputs
- ARINC 747 flight data output for connection to a Quick Access Recorder (QAR)
- Military options
- Control units, microphones, accelerometers and installation accessories are available
- Common ground support equipment with FA2100 Cockpit Voice Recorder (CVR) and Flight Data Recorder (FDR)

Use of U.S. DoD visual information does not imply or constitute DoD endorsement.



Modular Airborne Data Recorder/Acquisition System

SPECIFICATIONS

PHYSICAL DIMENSIONS

Size	½ ATR short
Height	7.6 in. (19.30 cm)
Width	5.0 in. (12.70 cm)
Depth	12.5 in. (31.75 cm), 13.1 in. including hold-down hooks (33.27 cm)
Weight	15 lbs. (6.80 kg)

POWER

Requirements	28 VDC 40 W, max
--------------	------------------

RECORDING

Time	25 hrs. of flight data storage (minimum) and 120 min. high-quality 4-channel recording or 30 min. high-quality 4-channel recording
Channels	4 audio input channels

MAIN CONNECTOR

ARINC 404 Quad 106-pin connector

ENVIRONMENTAL

Temperature	Operating	-55 °C to +70 °C
	Non-operating	-55 °C to +85 °C
Altitude	Operating	-1,000 to 55,000 ft.
Vibration	Dependent on application	
Penetration	ED-55/ED-56A	500 lbs./10 ft. /¼-in. probe
Static Crush	ED-55/ED-56A	5,000 lbs.
Fire Protection	ED-56A	50,000 BTU/sq. ft./hr. for 60 min. at 1100 °C; 10 hrs. at 260 °C
Impact		
Shock Wave	ED-56A	3,400 G, 6.5 ms, half-sine shock wave

UNDERWATER ACOUSTIC BEACON

Beacon, six-year battery and bracket supplied with unit

FA2200 MADRAS DATA ACQUISITION MODULE OPTIONS

Analog
Discrete
Synchro
Frequency
ARINC 429
Custom features available

PRODUCT CERTIFICATION

FAA TSO-C124a, C123a, C124b and C123b

REGULATORY SPECS

ARINC 404A, 747, EUROCAE MOPS ED-56A, ED-55, ED112, RTCA/DO-160E, RTCA/DO-178B

COMPANY CERTIFICATION

L3 Aviation Products Quality Management System is ISO 9001:2008 and AS9100:2009 Rev. C Certified

L3 Aviation Products

100 Cattlemen Road
Sarasota, Florida 34232 U.S.A.
Tel: 941-371-0811 Fax: 941-377-5591
www.L3aviationproducts.com



L3 Aviation Products is a leading provider of commercial and military avionics, as well as MRO services. We manufacture a diverse line of safety- and efficiency-enhancing products that sets the standard for next-generation cockpit requirements.