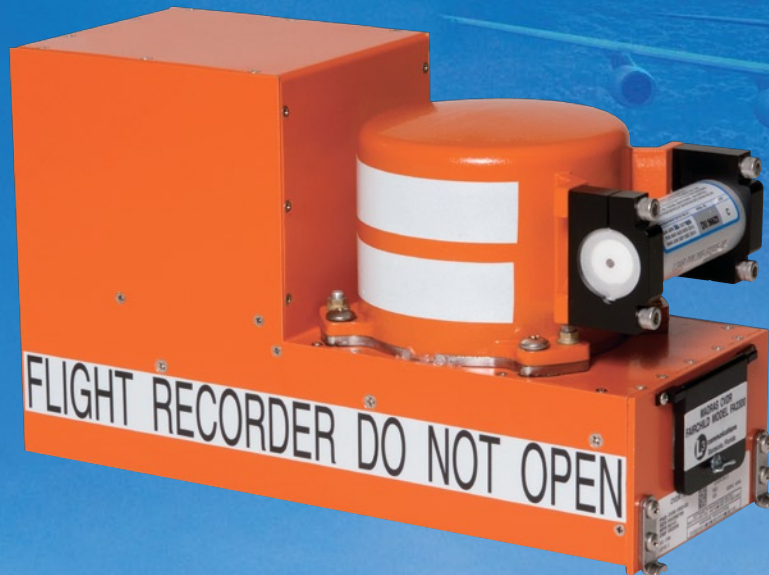


L-3 Aviation Recorders

FA2200/2300 MADRAS

The L-3 Modular Airborne Data Recorder/Acquisition System (MADRAS) is a highly reliable single-LRU 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.



KEY FEATURES

- Data acquisition and data input/output tailored to each aircraft
- Single-LRU provides flight data acquisition with voice and data recording
- Up to two 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 (dependant upon operation enviroment)
- Fully compliant and certified to all civil regulatory standards
- Wide range of analog, digital and discrete inputs
- ARINC 747 Flight Data output for connection to a QAR
- Military options
- Control units, microphones, accelerometers and installation accessories are available
- Common ground support equipment with FA2100 CVR and FDR



L-3 Aviation Recorders

FA2200/2300 MADRAS

PHYSICAL DIMENSIONS

Size:	½ ATR Short
Height:	7.6 inches (19.30 cm)
Width:	5.0 inches (12.70 cm)
Depth:	12.5 inches (31.75 cm), 13.1 inches including hold down hooks (33.27 cm)
Weight:	15 pounds (6.80 kg)

POWER

Requirements:	28 VDC 40W, max
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MAIN CONNECTOR

ARINC 404 Quad 106-pin connector

RECORDING

Time:	25 hours minimum of flight data storage and 120 min. high quality (4 channels) or 30 min. high quality (4 channels)
Channels:	4 audio input channels

ENVIRONMENTAL

Temperature:	Operating: -55° to +70°C Non-operating: -55° to +85°C
Altitude:	Operating: -1000 to 55,000 ft
Vibration:	Operating: D0-160D, Category R, Curve G
Penetration:	ED-55/ED-56A 500 lbs/10ft/ 1/4" probe
Static Crush:	ED-55/ED-56A: 5,000 lbs
Fire Protection:	ED-56A: 50,000 BTU/sq ft/hour for 60 min. at 1100°C; 10 hours at 260°C
Impact shock wave:	ED-56A: 3400 g, 6.5 ms, half sine

UNDERWATER ACOUSTIC BEACON

Beacon, six-year battery and bracket supplied with unit

FA2200 MADRAS DATA ACQUISITION MODULE OPTIONS

Analog Signal Conditioning Modules: Single-ended or differential analog, programmable gain and offset

Synchro: 6 channels

Frequency to Digital Conversion: 8 channels

Digital Signal Conditioning Modules: Series and shunt discrete

ARINC 429 Bus Monitor: Up to 8 ARINC 429 buses, low or high speed

CERTIFICATION

FAA TSO-C124a and C123a

REGULATORY SPECIFICATIONS

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

L-3 Aviation Recorders Quality Management System is ISO 9001:2000 and AS9 100:2004 Rev. B Certified

Aviation Recorders

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communications

Aviation Recorders

L-3. Headquartered in New York City, L-3 Communications employs over 64,000 people worldwide and is a prime contractor in aircraft modernization and maintenance, C³ISR (Command, Control, Communications, Intelligence, Surveillance and Reconnaissance) systems and government services. L-3 is also a leading provider of high technology products, subsystems and systems. The company reported 2007 sales of \$14 billion.

MKT053 Rev *B This technical data and software is considered as Technology Software Publicly Available (TSPA) as defined in Export Administration Regulations (EAR) Part 734.7-11.