

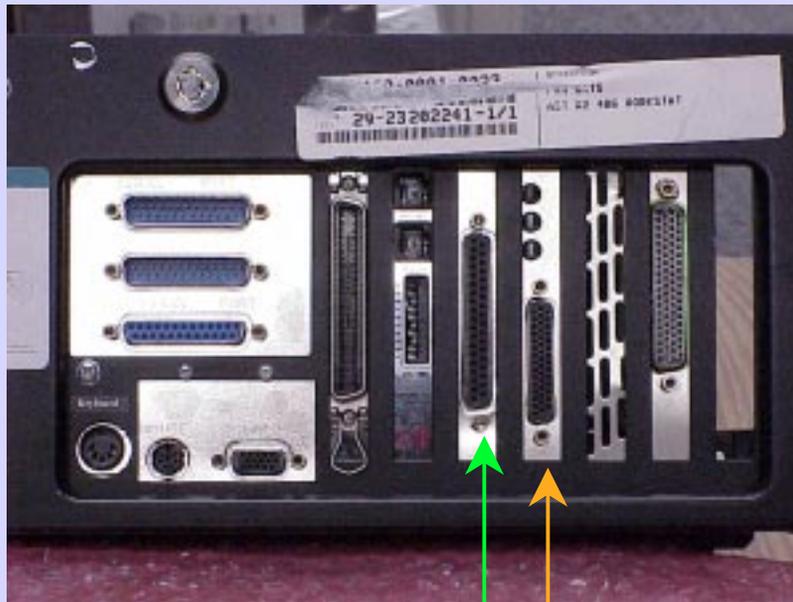
# How To Determine ... If Your RIT System Has An MX-6A or RDI ??

FAA Operational Support  
National Airways Systems Engineering Division  
ASR-9 Radar/RDAS Branch, AOS-270  
FAA William J. Hughes Technical Center

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# How to determine RDI or MX6A.

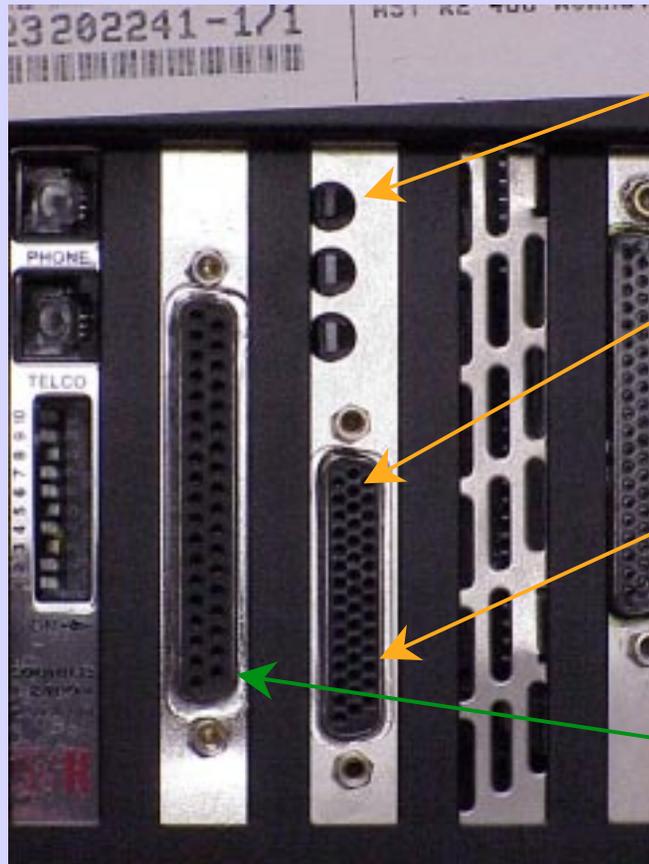


MX-6A DB25 Female Connector

RDI board DB45 Female Connector

- MX-6A = DB37 female connector form factor
- RDI board = high density DB45 female connector form factor

# Closer view ... telltale signs!!



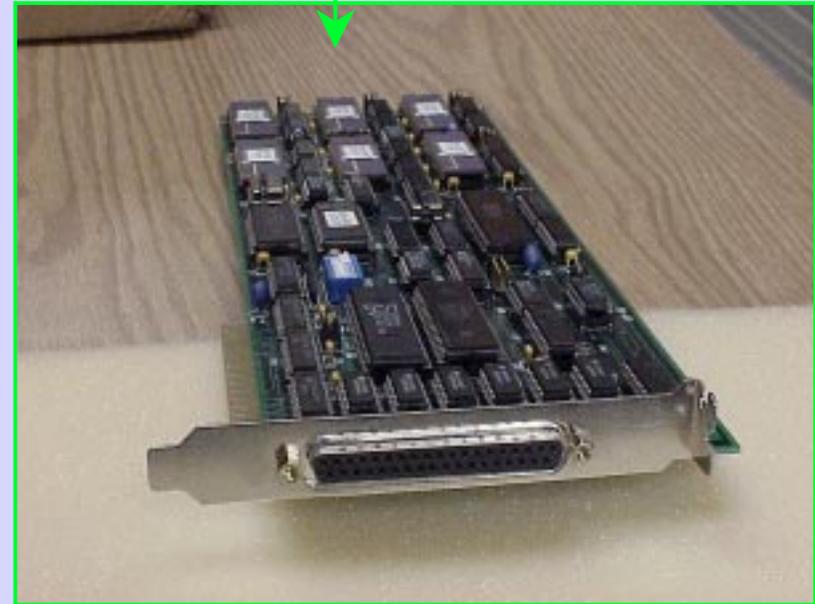
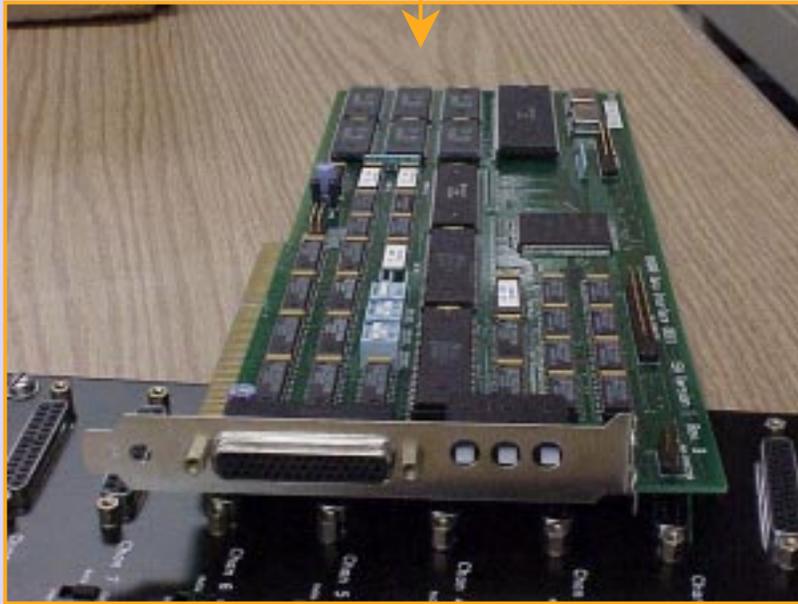
◆ RDI board (RDIB) has three (3) circuit breakers

◆ RDIB cable interface port has three (3) rows of holes

◆ RDIB cable connector, DB45, is smaller in length compared to the MX6A DB37 connector

◆ MX6A DB37 female connector

# RDI board vs MX6A card



# RIT System PC Radar Interface

- **RDI** = Radar Data Interface
- 8 serial channels
- Distributed to:
  - ASR-9 sites not collocated with a Mode-S,
  - super TRACONs (i.e., SCT, NYT),
  - All ARTCCs
- Dual-ported RAM, software polled (can have many RDIs in one PC), limiting factor: 2K UMB memory
- Downloadable embedded application
- Software: RS2win, RS3

- **MX6A** = six (6) channel universal radar interface multiplexer
- 6 serial channels
- Distributed to:
  - All Mode-S sites
  - Various users
- Hardware interrupt, IRQ, driven (can have one-three MX6As in one PC) limiting factor: available PC IRQs
- Firmware embedded program
- Software: WriteASR, RRAP, RTADS, WriteCD

# RDI System

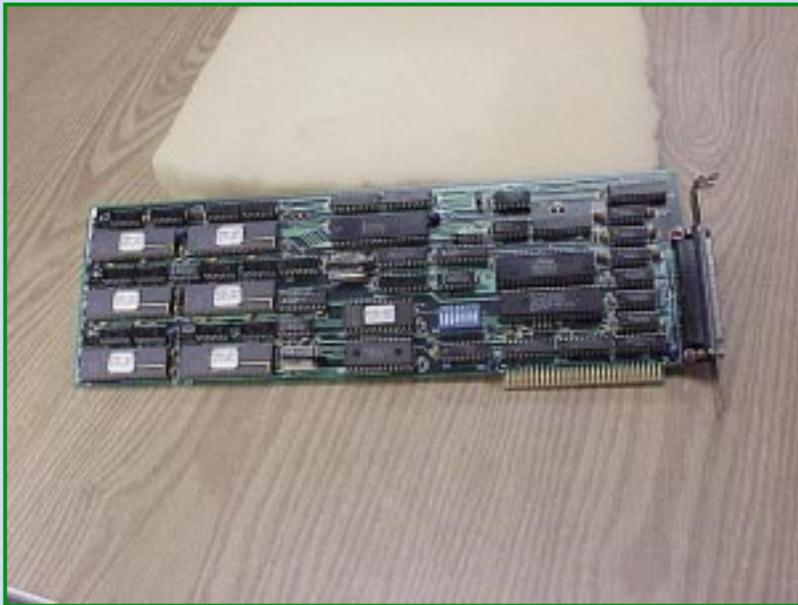
- The RDI System (RDI) is a PC-based hardware/software system which records and plays back up to 8 serial data streams.



- The RDI Board (RDIB) is a full-length plug-in printed circuit board for the PC ISA bus.
- The RDI Cable (RDIC) is a 50 conductor twisted pair shielded cable with high density DB44 connectors on both ends. RDIC connects the RDI Board with the RDI Adapter.
- The RDI Adapter (RDIA) hosts RS232 and RS530 transceivers to convert the radar data signals to TTL levels compatible with RDIB for each of the eight radar channel interface ports. RDIA connects to RDIB via RDIC.
- The RDI Software, *RDI-PC.EXE*, is a Windows™ 3.1 program that uses the RDI System hardware to collect message data from various types of radar processors.
- The RDI requires the user to fabricate interface cables according to the radar processor.

# MX6A Card

- The MX-6A Card, the six channel universal radar interface multiplexer, has the capability of interfacing six (6) synchronous serial data streams to a microcomputer through the standard PC ISA expansion bus.



- The MX-6A card (MX6A) is a full-length plug-in printed circuit board for the PC ISA bus.
- Various DOS & Windows™ programs have been developed to collect message data from various types of radar processors using the MX6A: RRAP, WriteASR, WriteCD, RTADS.
- The MX6A requires the user to fabricate interface cables according to the radar processor.

# AML E&R Service

The FAA Logistics Center's Micro Computer Lab, AML-442, provides Exchange and Repair (E&R) services for failed RIT System PC's. AML-442 will assemble, test and ship a replacement system with the appropriate specialty cards (Exchange & Replacement program). Site Users will be required to unpack the replacement system, connect appropriate interface cables and make the system operational, then pack the failed system and ship to AML-442.

FAA Logistics Center  
Micro Computer Lab, AML-442  
Mike Monroney Aeronautical Center  
P.O. Box 25082, 6500 S. MacArthur Blvd.  
Oklahoma City, OK 73135  
**Technical Support: (405) 954-9651**

# AOS Support

RIT/ERIT POC: Jeff Griffin, AOS-275

## FAA Operational Support

National Airways Systems Engineering Division

ASR-9 Radar/RDAS Branch, AOS-270

FAA William J. Hughes Technical Center

Atlantic City International Airport, NJ 08405

**Main & Tech Support: (609) 485-HELP**

AOS-270 Fax: (609) 485-6488

For software and documentation downloads, visit AOS-270 on the FAA Intranet at:

**<http://www.aos.tc.faa.gov/AOS270/>**

# RIT CD-ROM Purpose

- AOS has outfitted selected terminal radar sites with a system maintenance tool called the Radar Intelligent Tool (RIT) System to be used for sensor performance monitoring and optimization. The Enroute equivalent, installed at each ARTCC, is the Enroute – RIT (E-RIT).
- Each site having a RIT System, is encouraged to store the OEM original software license diskettes in a cool, dry, safe and accessible storage location. These original installation diskettes ARE the end-user licenses for the commercial software installed on each RIT System installed at your site. AOS does NOT maintain any reserve copies.
- The RIT CD-ROM disk was created in the event of a catastrophic RIT System PC failure. The RIT CD-ROM disk is the back up of the hard drive initial delivery image and the configuration boot diskettes. The RIT CD-ROM disk can be used to restore the RIT System hard drive to the baseline configuration. From the RIT CD-ROM, users can create boot diskettes for most RIT Systems.
- It is expected that each site having a RIT System, has the official FAA STB/SPB ‘upgrade’ kits to install the latest versions of FAA released software.

# RIT CD-ROM By Request

- The RIT CD-ROM disk is currently (December 2000) being distributed by AOS-270 on a "by request" basis.
- To request a copy of the RIT CD-ROM disk, a site may send any AOS-270 employee an e-mail with:
  - a site POC,
  - voice telephone number and
  - a shipping address (FedEx).
- The e-mail will then be forwarded to the AOS-270 QA group to have the latest version of the CD-ROM made and shipped to the requesting radar site.