



Component Overview

- **Name:** DSE-IBS C33 Board
- **Controller Compatibility:** KUKA KRC2 only
- **Function:** Interface between robot controller and drive system (via Interbus)
- **Slot Type:** PCI
- **Connection:** Interbus fiber/copper cable to RDC (Resolver Digital Converter)
- **Typical Part Number:** 00-108-254 (varies)

Associated Components

Component	Description
RDC Board	Located in robot base; reads resolver (position) data
KSD Drives	Servo drive amplifiers for each axis
KPS	KUKA Power Supply
ESC Card	Emergency Stop Circuitry for safety
MFC Card	Fieldbus/IO interface

LED Indicator Reference

LED Color	Status Description
Green	Normal operation / communication OK
Red Flash	Communication failure or board error
No LED	Board not powered or faulty

Troubleshooting Checklist

1. Physical Inspection

- ☐ Power off the KRC2 controller.
- ☐ Check PCI seating of the DSE-IBS card; reseal if necessary.
- ☐ Inspect green Interbus cable (from DSE to RDC) for damage.
- ☐ Ensure connectors are clean and pins are not bent.
- ☐ Check LED behavior after controller reboot.

2. System Boot Check

- ☐ Confirm controller boots to KUKA HMI.
- ☐ Monitor for errors like:
 - “No connection to RDC”



Technical Sheet & Troubleshooting Guide: KUKA KRC2 DSE-IBS Board

- “DSE-RDC communication error”
- “Axis not ready”
- “Drive bus error”

- ☐ Use KUKA Diagnosis Monitor (if available) to view communication status.

3. Component Swap Test (if available)

- ☐ Test DSE-IBS board in a working KRC2 controller.
- ☐ Replace Interbus cable with known good one.
- ☐ Swap RDC board if error persists.

4. Software/Firmware Validation

- ☐ Verify DSE-IBS firmware matches installed KSS version.
- ☐ Reinstall or update KUKA System Software if required.
- ☐ Reload robot archive after hardware changes.

5. Criteria for Replacement

- ☐ Persistent red LED or no LED despite other checks.
- ☐ Fault confirmed in alternate controller.
- ☐ Physical damage observed on PCB.

Maintenance & Handling Tips

- Use ESD protection when handling.
 - Power down completely before unplugging Interbus cables.
 - Keep spare DSE-IBS boards and Interbus cables for rapid troubleshooting.
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For further support, refer to KUKA manuals or contact a certified KUKA integrator/service provider.