

RFID APPLICATION TRAINER

ED-3100



> FEATURE

- F/W program practices for RFID Reader
- Various types of test point for Air-interface experiments
- Anti-collision function
- OCX Library useful for application engineers
- 13.56MHz I-CODE Type in common usage
- Capability of reading and writing data on Tag
- Mini-Plant interlocked with conveyor(management of warehouse, process, parking lot, etc.)
- Application modules for easy mounting and demounting (Management of entrance & exit, logistics, vending machine, etc.)

> TOPICS COVERED

- Development Environment(AVR, JTAG, Compiler)
- ED-3100 Configuration and Operation
- AVR Device through sample exercises
- I-CODE₁ Label IC
- SLRC₄₀₀ Reader IC
- OCX(Examples)
- Unselected Commands
- Anti-collision and Selected Commands
- Write, Selected, Addressed Commands
- Other Commands(Selected read, Halt, EAS/Quiet)

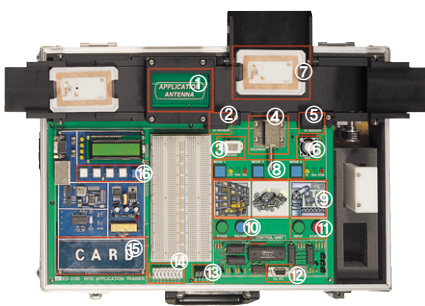
> SPECIFICATIONS

- **RFID Reader**
 - » Reader Control CPU : ATMEGA128
 - » Carrier Frequency : 13.56MHz \pm 1kHz
 - » Protocol : I-CODE₁
 - » Reading Distance : Around 100mm
 - » Display : 2 line character LCD
 - » Input Device : Mode selection switch 4ea
 - » Interface : RS-232, RS-422
- **RFID Antenna**
 - » 2Types(PCB pattern, plant practice part)
- **RFID Tag**
 - » 13.56MHz I-CODE₁ (R/W) : 10ea
- **Application Module**
 - » Warehouse management, process management, I/O expansion mode
- **Software**
 - » Electronic textbook per topic
 - » PC-based learning of theory and experiments
 - » Maximization of learning efficiency through visual support GUI

ACCESSORIES

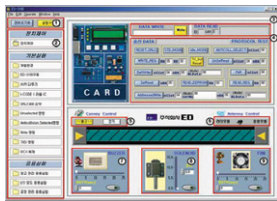
- Guide CD (I-CODE Datasheet, API Guide, F/W Full Source, Demo Program) : 1ea
- Experimental Manual : 1ea

Product Segments : RFID Reader B/D + 3 Types of Conveyor Belt Application Modules



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|----------------------------|---------------------------|
| 1. Application-use Antenna | 9. PANEL Mode Windows |
| 2. Object Detection Sensor | 10. Warehouse Mode Switch |
| 3. Buzzer | 11. Process Mode Switch |
| 4. Solenoid | 12. Communication Port |
| 5. Object Detection Sensor | 13. Power Supply Terminal |
| 6. FAN | 14. I/O Output Terminal |
| 7. Card Case | 15. RFID Antenna |
| 8. Mode Selection Switch | 16. Reader Setup Switch |

Reader B/D Control Window



Each control command is based on Icon click, and it enables to check a protocol of data being transmitted or received

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|---------------------------------|-----------------------------|
| ① System Initialization | ⑥ Antenna Conversion Switch |
| ② Topic Selection Button | ⑦ Buzzer Control Windows |
| ③ Protocol Monitor Windows | ⑧ Solenoid Control Windows |
| ④ RFID Protocol Windows | ⑨ FAN Control Windows |
| ⑤ Conveyor Belt Control Windows | |

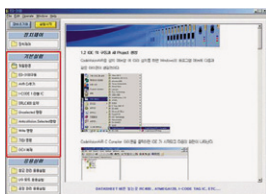
Application Experiments Control Window



Interlocking experiments : Automatic Warehouse, I/O Mode, Process Line with conveyor line

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|---|
| ① Topic Selection Button |
| ② “Warehouse Management Mode” Control Windows |
| ③ “I/O Mode Mode” Control Windows |
| ④ “Process Management” Control Windows |
| ⑤ Application Experiment Windows (Warehouse) |

Electronic Textbook



The above Window explains how to operate AVR Compiler's IDE within the development environment folder. Selecting each topic will retrieve files of electronic textbook and display information in needs.