RFID AGV Navigation Tag

Nowadays, AGV RFID tag is widely applied to automated warehousing, factory material transfer systems, logistics picking systems, flexible assembly systems, and other intelligent transportation sites.

Specification

Protocol standard:	HDX ISO 11784/11785, ICAR compliance
Memory:	192bit
Functionality:	Read/write
Frequency:	134.2 kHz
Typical reading range:	90mm~120mm (desktop reader)
	> 30cm (reader with big antenna)
Weight:	Approx. 19g
Operating temperature:	-25°C ~ 85°C

Key Feature

- Outstanding performance in Harsh environment
- Accuracy, Repeat-ability, Flexibility, Block Stacking, Temperature, Floor sub-structure，Traffic pattern
- ISO 11784/11785 full identification data programmable, DBE format
- 134.2 kHz, 192 Bits, Multi-Purpose R/W HDX RFID IC
- Standard and advanced animal R/W RFID transponder tags
- Long read range transponder
- Half duplex (HDX) 134.2 kHz contactless read/write data
- Compatible with TI-RFID reader
- Write standard animal ID or write 64 bits hexadecimal value
- On-chip tunable resonant capacitor controlled by non-volatile memory switch
- Available in HDFN package, fully compatible with its predecessor

Applications

- Robotic lifter, container lifter path tracking
- Automated warehousing
- Factory material transfer systems
- Logistics picking and flexible assembly systems
- Intelligent transportation sites

SHANGHAI HUAYUAN ELECTRONIC CO., LTD |517, B-Bld, No. 399 Hengnan Rd, Shanghai 201112, China.
T:+86 21 5424 6151 ; F: +86 21 5424 6163, info@huayuansh.com , www.huayuansh.com

Supported Protocols

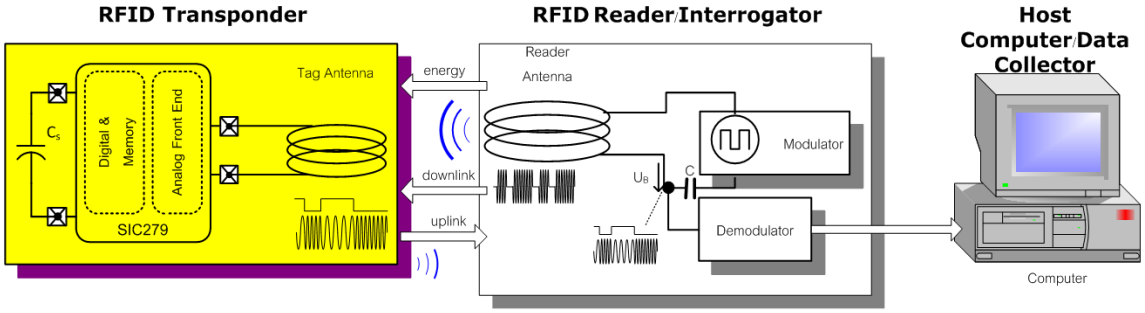
- Compliant with BDE format (for waste management application)
- Fully compliant with ISO 11784/11785 HDX R/O Animal tag
- ID data protocol/structure
- Fully compliant with mainstream HDX R/W ID format

Memory

- R/W user memory of 6X32 (192 bits)
- Supporting user access to factory unique ROM ID (UID), preventing chips from cloning
- Direct Access/Write Mode
- Protected Direct Access/Write Mode
- One-time programming (OTP) configuration
- Write endurance > 100,000 R/W cycles
- Memory retention > 20 years

Commands

- Proprietary command protocol
- Comprehensive error logging reports
- Support cascade commands



Detailed Block Diagram

Figure 1-2 is the detailed block diagram of SIC279