SIC279

134.2 kHz, Multi-Purpose R/W HDX RFID IC with 192 bits of User Memory
REV 1.1

Features Summary

Highlight Features

- New improvement from its predecessor to fully support
- Industrial application (BDE format)
- Customizable, long read range R/W RFID transponder
- Half duplex FM telegram 124/134 kHz contactless read/write data

Interface and Peripheral

- 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

Operating Conditions

- Carrier frequency f_c is 134.2 kHz
- Operating temperature: –25°C to 85°C

Package

- Glass Transponder 32 mm

Applications

- HDX industrial application
- Waste bin tag (BDE)
- HDX ISO 11784/85 Animal Tag, ICAR compliant RFID tags
- Long Read-Range EAS Transponders

Revision History

Revision	Date	Change/Update Comment
1.0	10 Oct 2024	Official Release
1.1	5 Jun 2025	• Update document template • Update ordering information

Ordering information

Part No.	Description	Configuration	Package	Standard Packing
P29AGU54G20SU2920C1	SIC279-20, LF HDX IC with RW memory 512 bits and Industrial ID Glass tag 134.2kHz, Canister, RFID TAG	Standard	Glass tube 32mm *(Transparent epoxy)*	100 pcs/Canister
P29AGU54G10SU2920C2	SIC279-20, LF HDX IC with RW memory 512 bits and Industrial ID Glass tag 134.2kHz, Canister, RFID TAG	Standard	Glass tube 32mm *(Black epoxy)*	1,000 pcs/Canister
P29AGU54G10SU2922C2	SIC279-22, LF HDX IC with RW memory 512 bits and Industrial ID Glass tag 134.2kHz, Canister, RFID TAG	Custom #22	Glass tube 32mm *(Black epoxy)*	1,000 pcs/Canister
P29AGU54G10SU2926C2	SIC279-26, LF HDX IC with RW memory 512 bits and Industrial ID Glass tag 134.2kHz, Canister, RFID TAG	Custom #26	Glass tube 32mm *(Black epoxy)*	1,000 pcs/Canister
P29AGU54G10SU2927C2	SIC279-27, LF HDX IC with Industrial ID - Read only Glass tag 134.2kHz, Canister, RFID TAG	Custom #27	Glass tube 32mm *(Black epoxy)*	1,000 pcs/Canister
P29AGU54G20SU2913C1	SIC279-13, LF HDX IC with Animal ID - Read only Glass tag 134.2kHz, Canister, RFID TAG	Custom #13	Glass tube 32mm *(Transparent epoxy)*	100 pcs/Canister
P29AGU54G10SU2914C1	SIC279-14, LF HDX IC with Animal ID - Read only Glass tag 134.2kHz, Canister, RFID TAG	Custom #14	Glass tube 32mm *(Black epoxy)*	100 pcs/Canister
P29AGU54G10SU2915C2	SIC279-15, LF HDX IC with Animal ID - Read only Glass tag 134.2kHz, Canister, RFID TAG	Custom #15	Glass tube 32mm *(Black epoxy)*	1,000 pcs/Canister
P29AGU54G20SU2916C2	SIC279-16, LF HDX IC with Animal ID - Read only Glass tag 134.2kHz, Canister, RFID TAG	Custom #16	Glass tube 32mm *(Transparent epoxy)*	1,000 pcs/Canister
P29AGU54G20SU2917C2	SIC279-17, LF HDX IC with RW memory 512 bits and Animal ID Glass tag 134.2kHz, Canister, RFID TAG	Custom #17	Glass tube 32mm *(Transparent epoxy)*	1,000 pcs/Canister

Package information
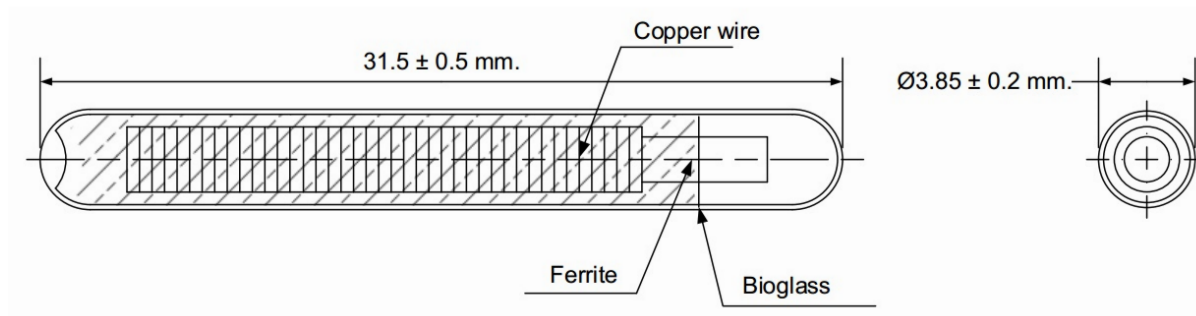
Figure 1: Drawing and dimension

Table 1: Package specifications

Item	Parameter	Value	Tolerance	Unit
Glass Transponder	Length	31.50	± 0.50	mm
	Width	3.85	± 0.20	mm

Disclaimer

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