



**SIC279
SIC73WR
SIC73F1**



LF HDX RFID TRANSPONDER FOR INDUSTRIAL APPLICATIONS

SIC279, SIC73WR and SIC73F1 offer a broad range of compatible industrial transponders. These low-frequency (LF) RFID transponders operate at 134.2 kHz, utilizing half-duplex (HDX) technology with 80-bit programmable code, ideal for use with existing HDX RFID infrastructure.

Our LF HDX RFID transponders are highly robust and well-suited for various industrial environments. They provide reliable identification and tracking even in harsh conditions, and are less susceptible to electromagnetic interference or noise (metals, liquids, etc.).

With extended memory, these transponders store and manage large amounts of data across multiple pages, ensuring that information remain accessible and up-to-date even in dynamic environments.

HIGHLIGHT FEATURES

- Compliant with ISO 11784/11785 HDX
- HDX Contactless Read/Write Data Transmission at 134.2 kHz
- Multipage Transponder (MPT)*
- Tunable Resonant Frequency**
- 80-bit Programmable ID Memory
- Best-in-Class Read and Write Sensitivity
- Robust and High-Quality Build

APPLICATIONS

- Industrial Automation
- Access Control
- Asset Management
- Vehicle Identification
- Container Tracking
- Waste Bin Tag (BDE)
- Food Industry
- Cleanroom Manufacturing
- Wafer Carrier Tracking*

LF HDX TRANSPONDER

FOR INDUSTRIAL APPLICATIONS



SIC279

LF HDX RFID transponder
with 192-bit R/W memory



SIC73WR

LF HDX RFID transponder
with 720-bit R/W memory



SIC73F1

LF HDX RFID transponder
with 1,360-bit R/W memory

SPECIFICATION

SIC279

SIC73WR

SIC73F1

Communication Protocol

Memory Reading

ISO 11784/11785 HDX

ISO 11784/11785 HDX

ISO 11784/11785 HDX
& SEMI-E144-0312

ID Programming

SIC Proprietary

HDX De Facto Standard

HDX De Facto Standard

Read/Write Extended Memory

SIC Proprietary

SIC Proprietary

SEMI-E144-031

Memory

Programmable ID Memory [bits]

80

Extended User Memory Size [bits]

192

720

1360
(Multipage - MPT)

Data Retention [bits]

20

20

10

Write Cycles [times]

100k

100k

100k

Security

32-bit Password
Authorization

N/A

N/A

Operating Conditions

Operating Frequency [kHz]

134.2

Operating Temperature [°C]

-25 to 85

-40 to 85

-25 to 85

Resonant Capacitor

Integrated Resonant Capacitor [pF]

330

380

N/A

On-Chip Tunable Resonant Capacitor

Yes

N/A

N/A

Tunable Resonant Capacitance Range [%]

±10%

N/A

N/A

Tunable Resonant Capacitance Data [steps]

128

N/A

N/A

Others

Form Factors

- Wedge
- Glass Tag: 12, 23, 32 mm
- VDFN
- WDFN

- Wedge
- Glass Tag: 23, 32mm
- VDFN

Glass Tag: 32 mm
(Bio-Glass with Black Epoxy)

COMPARISON SPECIFICATION TABLE

SUPPORT MATERIALS

- Silicon Craft Universal LF Reader
- PC Software for Tuning On-Chip Resonant Capacitance

