



SIC379
SIC73WR
SIC73F1



LF HDX RFID TRANSPONDERS & ICs FOR INDUSTRIAL APPLICATIONS

SIC379, SIC73WR, and SIC73F1 offer a broad range of compatible industrial transponders & ICs. These low-frequency (LF) RFID transponders & ICs operate at 134.2 kHz, utilizing half-duplex (HDX) technology with an 80-bit programmable code, ideal for use with existing HDX RFID infrastructure.

Our LF HDX RFID transponders & ICs 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 & ICs store and manage large amounts of data across multiple pages, ensuring that information remains 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*

(*) SIC73F1 (**) SIC379

LF HDX TRANSPONDERS & ICs

FOR INDUSTRIAL APPLICATIONS



SIC379

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



SIC73WR

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



SIC73F1

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

SPECIFICATION	SIC379	SIC73WR	SIC73F1
Communication Protocol			
ID 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 E144-0312
Memory			
Programmable ID Memory [bits]	80		
Extended User Memory Size [bits]	192	720	1360 (Multipage - MPT)
Data Retention [years]	10	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]	-40 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	<ul style="list-style-type: none"> • Wedge • Glass Transponder: 23, 32 mm • VDFN 	<ul style="list-style-type: none"> • Wedge • Glass Transponder: 23, 32 mm • VDFN 	Glass Transponder: 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

