13.56Mhz RFID Reader/writer – USB driver installation guide for Windows

Remarks :

Don't connect the USB reader with the PC when running below auto USB driver setup

[1] insert the USB driver disk to CD-ROM :

run the auto setup program from the following path : cd-rom drive :\USB To Virtual Com driver\CP210x_VCP_Win2K_XP_S2K3.exe windows OS support : 2000 , XP , Vista & 2003 server

Silicon Laboratories CP210x USB to	UART Bridge Driver Installer
Silicon Laboratories Silicon Laboratories CP210x USB t	o UART Bridge
Installation Location:	Driver Version 4.40
C:\Program Files\Silabs\MCU\CP210x\	
Change Install Location	Install Cancel

[2] After driver installation \rightarrow connect the USB reader to the PC's USB port with a USB cable . Then the PC will find the reader and install the "USB to UART Bridge" driver automatically.

[3] After installation successfully , you will find "CP210xUSB to UART Bridge Controller (Com3)" as follow message from the control panel/system/hardware/device manager/port(COM & LPT) . (may be see other COM port #, not the COM3 which is depend on your PC's hardware configuration)

Sam 9	🔒 Device Manager	
System Restore Automatic Updates Remote General Computer Name Hardware Advanced	Ele Action ⊻iew Help ← → 10 49 12	
Device Manager Image: The Device Manager lists all the hardware devices installed on your computer. Use the Device Manager to change the properties of any device. Device Manager Device Manager Drivers Driving Signing lets you make sure that installed drivers are compatible with Windows. Windows Update lets you set up how Windows connects to Windows Update for drivers. Driver Signing Windows Update	 DE ATA/ATAPI controllers Infrared devices Keyboards Mice and other pointing devices Moderns Monitors Monitors PCMCIA adapters PCMCIA adapters Ports (COM & LPT) 	<u>^</u>
Hardware Profiles Hardware profiles provide a way for you to set up and store different hardware configurations. Hardware Profiles OK Cancel Apply	 Printer Port (LPT1) Printer Port (LPT1) Processors Sound, video and game controllers System devices Horiversal Serial Bus controllers 	5

Demo program (C#) – Mifare ISO14443A

Run the demo program from the following path :

C# : cd-rom drive\\demo program\C# 14443A Mifare demo program\demo.exe

COM port Setting

Select virtual com port , then click on "connect" for operation.

"connect device success" message will be shown as follow if correct :

Mifare 1K UPC										×
Disconnect Port 3	Baud 19200	E.								
Purse function Sector O Sector Block I OKeyA KeyB Key Value(Dec) Initialize Increment Operator Frame Sector O Block O	Request Value (Hex) Decrement Read Sector	ReqIDL Connect device a mr Balance or Write Ek	Helt Operate Sector Success! Operate Operate Sector	yA K	Block SeyB Block	6 0 Key	• (Read Sector	Write Block	
)(
💿 КеуА 🚫 КеуВ Кеу			📃 💿 Ke	ya 🔿 k	KeyB	Кеу				

Read & write operation

Below example is to read/write a ISO14443A Mifare S50 card Place a "Mifare S50 " card on the reader. Click on "request" to read the UID (UID will be shown here) Entry key A password (default value : ffffffffff) for other read/write operation

Mifare_1K UPCD				
Disconnect Port 3	- Baud 19200			
4CF6CE3C	Regent	ReqIDL	Halt	
Sector O Block KeyA KeyB Key Value(Dec)	1 Value(Hex)	I	Sector 0 Block 0 Read Sector Write Bk 4C76CE3C4808040062036465666676869 04000000619EFFFFF04000000101FE01FE	ock
Initialize Increment	Decrement	Balance	O0000000000 FF078080 FFFFFFFFFFFF • KeyA KeyB Key ffffffffffff	
Operator Frame			Operator Frame	
Sector U Slock 0	Read Sect	Write Block	Sector U Slock U Read Sector Write Ele	
⊙ KeyA ◯ KeyB Ke	×		KeyA O KeyB Key	

select the correct Block and sector to read and write data

Pls refer to the Mifare S50 datasheet for other function operation in detail

Demo program (VC) – ISO15693 Icode

Run the demo program from the following path :

C# : cd-rom drive\\demo program\VC 15693 Icode demo program\demo.exe

COM port Setting

Select virtual com port and baud rate (default : 19200)

N	0	error	message	was	found	if	correct	success.
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🏂 ISO1 5693 I-code	e Demo Program				
Port:	3 Disconnect		Baud: 19200)	•
UID 🕋					
UID C					
Block:	0	<u> </u>			
Data:	[Status:	
INVENT		Read	Write	Lock	د

Place a ISO15693 I-code card on the reader click on "INVENTORY" and UID will be shown here "INVENTORY success" message will be shown if correct

015693 I-ct de	Pemo Program				
Port:	3	<u>–</u>	Baud: 19200		-
	Disconne				
UID 💿	2D44A23D000	104E0			
un c					
UID 1					
		Succ			
		6) INVENTORY		
		9	IN VEN IORY SUCCESS		
Block:	0		[]		
Data				Status:	-
Data.	1				I
INDERIT		D • • •	1	1	
INVENTO	лнү	Read	Write		LOCK

select a correct Block to read and write data (0-27 Block for I-code)

Pls refer to the ISO15693 I-code datasheet for other function operation in detail