13.56M RFID Reader QU-60x Serial

Manual

(version 1.6)

ISO15693

- **English**

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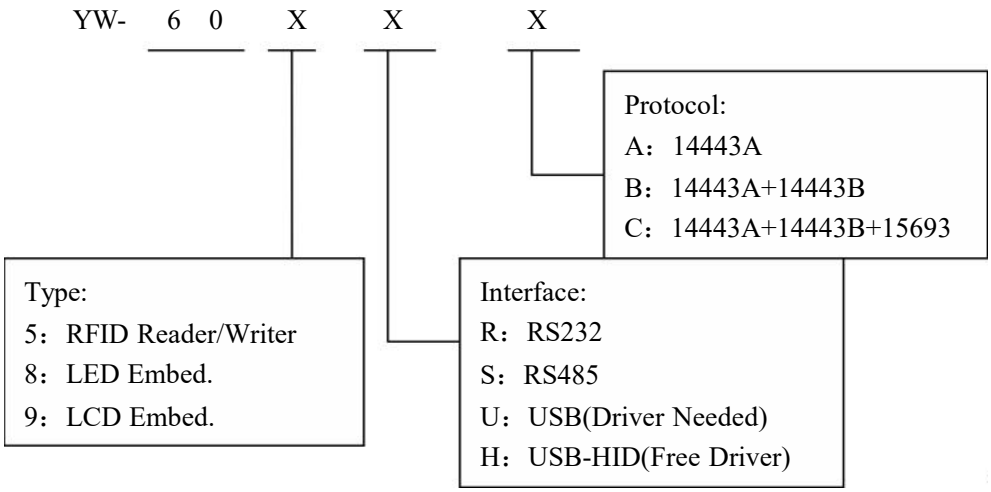
Content

1 Introduction

YW-605 RFID reader/Writer is the 13.56M HF tags Reader and Writer. She Can support ISO14443A, ISO14443B and ISO15693 RFID tags.

2 YW-605 Serial

13.56M RFIDReader/Writer



3 Feature

☞Distance of read tags is 5-10cm

☞DLL API supported. VC, VB, Delphi, C++Builder, C#.net, WEB example

☞Beep and LED embed, which can be controlled by API.

4 Specifications

- Baud: 19200BPS
- Power: DC5V ± 10%
- Max Con: 1.5W
- Temp: -30℃ ～ +70℃
- Humidity: 35% ～ 95%
- Size: 120 * 84 * 25 (mm)
- Weight: 100g

5 Program Manual

DLL API and functions

1. Get the version of DLL

prototype: `int stdcall YW_GetDLLVersion(void);`

Param: 无

Return: version Number is success, else is fail.

2. DES

prototype: `int stdcall DES(unsigned char cModel, unsigned char *pkey, unsigned char *in, unsigned char *out);`

Param:

Param	Type	

cModel	unsigned char	Direction: 0 Encryption，1 Decryption
pkey	unsigned char*	Key , 8 Bytees
in	unsigned char*	Data ,8 bytes
out	unsigned char*	Data after Des, 8bytes

Return: 0

3. 3DES

prototype: intstdcall DES3(unsigned char cModel, unsigned char *pKey, unsigned char *In, unsigned char *Out);

Param:

Param	Type	
cModel	unsigned char	Direction: 0 Encryption，1 Decryption
pkey	unsigned char*	Key, 16Bytes
in	unsigned char*	Data ,8 bytes
out	unsigned char*	Data after Des, 8bytes

Return: 0

4. 3DES with vector

prototype: int stdcall DES3_CBC(unsigned char cModel, unsigned char

*pKey,unsigned char *In, unsigned char *Out, unsigned char *pIV);

Param:

Param	Type	
cModel	unsigned char	Direction: 0 Encryption, 1 Decryption
pkey	unsigned char*	Key, 16Bytes
in	unsigned char*	Data ,8 bytes
out	unsigned char*	Data after Des, 8bytes
pIV	unsigned char*	Vector , 8Bytes

Return: 0

5. Initial Serial Port

prototype: int stdcall YW_ComInitial(int PortIndex, int Bound);

Param:

Param	Type	
PortIndex	int	Port Number, 1--255
Bound	int	Baud,2400—115200, 19200default

Return: 1 success, 0 fail

6. Free Serial port

prototype: int stdcall YW_ComFree(void);

Param:

Return: 1 success, 0 fail

7. Initial HID Port

prototype: int stdcall YW_USBHIDInitial(void);

Param:

Return: 1 success, 0 fail

8. Free HID Port

prototype: int stdcall YW_USBHIDFree(void);

Param:

Return: 1 success, 0 fail

9. Change the serial port baud

prototype: int stdcall YW_ComNewBound(int ReaderID ,int NewBound);

Param:

Param	Type	
ReaderID	int	Reader ID, default ID=0
NewBound	int	New Baud 0x01->9600bps 0x02->14400bps 0x03->19200bps 0x04->28800bps 0x05->38400bps 0x06->57600bps 0x07->115200bps

Return: 1 success, 0 fail

10. Set Reader ID

prototype: int stdcall YW_SetReaderID(int OldID, int NewID);

Param:

Param	Type	
OldID	int	Old Reader ID
NewID	int	New Read ID

Return: 1 success, 0 fail

11. Get Reader ID

prototype: int stdcall YW_GetReaderID(int ReaderID);

Param:

Param	Type	
ReaderID	int	ReaderID=0

Return: >=0 success and is Reader ID, other is fail

12. Get Reader Fireware version

prototype: int stdcall YW_GetReaderVersion(int ReaderID);

Param:

Param	Type	
ReaderID	int	Reader ID

Return: >=0 success and is version, other is fail

13. Get Reader serial No.

prototype: int stdcall YW_GetReaderSerial(int ReaderID, char *ReaderSerial);

Param:

Param	Type	
ReaderID	int	Reader ID
ReaderSerial	Char *	Reader Serial, 8 Bytes

Return: 1 success, 0 fail

14. Beep control

prototype: int stdcall YW_Buzzer(int ReaderID,int Time_ON, int Time_OFF, int Cycle);

Param:

Param	Type	
ReaderID	int	Reader ID
Time_ON	int	Beep on time, unit:100ms
Time_OFF	int	Beep off time, unit:100ms
Cycle	int	The weeks of the beep on and off

Return: 1 success, 0 fail

15. LED control

prototype: intstdcall YW_Led(intReaderID,intLEDIndex,intTime_ON, int Time_OFF, int Cycle, int LedIndexOn);

Param:

Param	Type	
ReaderID	int	Reader ID
LEDIndex	int	LED index 01: Read 02: Green 04: Yellow
Time_ON	int	LED On Time, unit:100ms
Time_OFF	int	LED Off Time, unit:100ms
Cycle	int	The weeks of the Led on and off
LedIndexOn	int	The index of Led on last: 00: all off 01: Read 02: Green

		04: Yellow

Return: 1 success, 0 fail

16. Set Content of 8 LED display

prototype: intstdcall YW_LEDDisplay(int ReaderID,int Alignment,char *LEDText);

Param:

Param	Type	
ReaderID	int	Reader ID
Alignment	int	Alignment 1: Left 2: Center 3: Right
LEDText	Char *	The string to be displayed The char can be below 0123456789AbCdEF.-

Return: 1 success, 0 fail

17. Set the Status of Antenna

prototype: int stdcall YW_AntennaStatus(int ReaderID,bool Status);

Param:

Param	Type	
ReaderID	int	Reader ID
Status	bool	True: Open RF Antenna False:Close RF Antanna

Return: 1 success, 0 fail

18. Set Work Mode of Tags

prototype: int stdcall YW_SearchCardMode(int ReaderID,int SearchMode);

Param:

Param	Type	
ReaderID	int	Reader ID
SearchMode	char	Tags 0x41-----ISO14443A 0x42----- ISO14443B 0x31----- ISO15693 0x53------ST Serail 0x52------AT88RF020

Return: 1 success, 0 fail

Functions about Tags of ISO15693

19. 15693 Tags Inventory

prototype: int stdcall YW_ISO15693_Inventory(int ReaderID, unsigned char *PData, unsigned char *PLen);

Param:

Param	Type	
ReaderID	int	Reader ID
PData	unsigned char *	If Succes, Flag(1byte)+ UID(8Byte)
PLen	unsigned char *	Length of PData

Return: 1 success, 0 fail

20. 15693 Tags Stay_Quiet

prototype: int stdcall YW_ISO15693_Stay_Quiet(int ReaderID, unsigned char *PUID);

Param:

Param	Type	
ReaderID	int	Reader ID
PUID	unsigned char *	UID(8Byte) of Tags

Return: 1 success, 0 fail

21. Select Tag of ISO15693

prototype: int stdcall YW_ISO15693_Select(int ReaderID, unsigned char Model, unsigned char *PUID);

Param:

Param	Type	
ReaderID	int	Reader ID
Model	unsigned char	Model=0x00 Select Tag With Flag Model=0x02 Select Tag with UID
PUID	unsigned char *	UID(8Byte) of Tags

Return: 1 success, 0 fail

22. Reset To Ready of ISO15693 Tag

prototype: int stdcallYW_ISO15693_Reset_To_Ready(intReaderID,unsigned char Model, unsigned char *PUID);

Param:

Param	Type	
ReaderID	int	Reader ID
Model	unsigned char	Model=0x00 Select Tag With Flag

		Model=0x02 Select Tag with UID
PUID	unsigned char *	UID(8Byte) of Tags

Return: 1 success, 0 fail

23. Read Block of ISO15693 Tag

prototype: int stdcall YW_ISO15693_Read(int ReaderID,unsigned char Model,unsigned char *PUID,unsigned char StartBlockID, unsigned char BlockNums, unsigned char *PData, unsigned char *PLen);

Param:

Param	Type	
ReaderID	int	Reader ID
Model	unsigned char	Model=0x00 Select Tag With Flag Model=0x02 Select Tag with UID
PUID	unsigned char *	UID(8Byte) of Tags
StartBlockID	unsigned char	Block ID Begin
BlockNums	unsigned char	Numbers of Blocks
PData	unsigned char *	Data read
PLen	unsigned char *	Lenth of PData

Return: 1 success, 0 fail

24. Write Block of ISO15693 Tag

prototype: int stdcall YW_ISO15693_Write(int ReaderID,unsigned char Model, unsigned char *PUID, unsigned char BlockID,unsigned char DataLen, unsigned char *PData);

Param:

Param	Type	
ReaderID	int	Reader ID
Model	unsigned char	This value depends on the card . Bit0=1 Select Tag With Flag Bit1=1 Select Tag with UID Bit2=1 depends on the Tags
PUID	unsigned char *	UID(8Byte) of Tags
BlockID	unsigned char	Block ID Begin
DataLen	int	Length of PData
PData	unsigned char *	Data will be written

Return: 1 success, 0 fail

25. Lock Block of ISO15693 Tags

prototype: int stdcall YW_ISO15693_Lock_Block(int ReaderID,unsigned char Model, unsigned char *PUID, unsigned char BlockID);

Param:

Param	Type	
ReaderID	int	Reader ID
Model	unsigned char	This value depends on the card .

		Bit0=1 Select Tag With Flag Bit1=1 Select Tag with UID Bit2=1 depends on the Tags
PUID	unsigned char *	UID(8Byte) of Tags
BlockID	unsigned char	The block ID

Return: 1 success, 0 fail

26. Write AFI of ISO15693 Tags

prototype: int stdcall YW_ISO15693_Write_AFI(int ReaderID,unsigned char Model, unsigned char *PUID, unsigned char AFI);

Param:

Param	Type	
ReaderID	int	Reader ID
Model	unsigned char	This value depends on the card . Bit0=1 Select Tag With Flag Bit1=1 Select Tag with UID Bit2=1 depends on the Tags
PUID	unsigned char *	UID(8Byte) of Tags
AFI	unsigned char	AFI Value

Return: 1 success, 0 fail

27. Lock AFI of ISO15693 Tags

prototype: int stdcallYW_ISO15693_Lock_AFI(intReaderID,unsigned char Model, unsigned char *PUID);

Param:

Param	Type	
ReaderID	int	Reader ID
Model	unsigned char	This value depends on the card . Bit0=1 Select Tag With Flag Bit1=1 Select Tag with UID Bit2=1 depends on the Tags
PUID	unsigned char *	UID(8Byte) of Tags

Return: 1 success, 0 fail

28. Write DSFIC of ISO15693 Tags

prototype: int stdcall YW_ISO15693_Write_DSFID(int ReaderID,unsigned char Model, unsigned char *PUID, unsigned char DSFID);

Param:

Param	Type	
ReaderID	int	Reader ID
Model	unsigned char	This value depends on the card . Bit0=1 Select Tag With Flag Bit1=1 Select Tag with UID Bit2=1 depends on the Tags
PUID	unsigned char *	UID(8Byte) of Tags
DSFID	unsigned	DSFID Value

	char	

Return: 1 success, 0 fail

29. Lock DSFIC of ISO15693 Tags

prototype: int stdcall YW_ISO15693_Lock_DSFID(int ReaderID,unsigned char Model, unsigned char *PUID);

Param:

Param	Type	
ReaderID	int	Reader ID
Model	unsigned char	This value depends on the card . Bit0=1 Select Tag With Flag Bit1=1 Select Tag with UID Bit2=1 depends on the Tags
PUID	unsigned char *	UID(8Byte) of Tags

Return: 1 success, 0 fail

30. Get System Information of ISO15693 Tags

prototype: int stdcall YW_ISO15693_Get_System_Information(int ReaderID,unsigned char Model, unsigned char *PUID,unsigned char *PData, unsigned char *PLen);

Param:

Param	Type	
ReaderID	int	Reader ID
Model	unsigned char	Model=0x00 Select Tag With Flag Model=0x02 Select Tag with

		UID
PUID	unsigned char *	UID(8Byte) of Tags
PData	unsigned char *	System Infomation
PLen	unsigned char *	Length of System Infomation

Return: 1 success, 0 fail

31. Get Security of Blocks about ISO15693 Tag

prototype: int stdcall YW_ISO15693_Get_Block_Security(int ReaderID,unsigned char Model, unsigned char *PUID,unsigned char StartBlockID, unsigned char BlockNums,unsigned char *PData, unsigned char *PLen);

Param:

Param	Type	
ReaderID	int	Reader ID
Model	unsigned char	Model=0x00 Select Tag With Flag Model=0x02 Select Tag with UID
PUID	unsigned char *	UID(8Byte) of Tags
StartBlockID	unsigned char	Block ID Begin
BlockNums	unsigned char	Number of Blocks
PData	unsigned char *	Security Infomation
PLen	unsigned	Length of Security

	char *	Infomation

Return: 1 success, 0 fail

32. Multi Inventtory of ISO15693 Tags

prototype: int stdcall YW_ISO15693_Multi_Inventory(int ReaderID, unsigned char AFIEnable, unsigned char AFI, unsigned char *PData, unsigned char *PLen);

Param:

Param	Type	
ReaderID	int	Reader ID
AFIEnable	unsigned char	0
AFI	unsigned char	0
PData	unsigned char *	UIDs of many Tags
PLen	unsigned char *	Length of UIDs

Return: 1 success, 0 fail

Functions of SAM

33. SAM Baud

prototype: int__stdcall YW_SAM_ResetBaud(int ReaderID, int SAMIndex, int BaudIndex);

Param:

Param	Type	
ReaderID	int	Reader ID
SAMIndex	int	SAM Index
BaudIndex	int	0x00->9600 (Default)

		0x01->19200 0x02->38400 0x03->55800 0x04->57600 0x05->115200

Return: 1 success, 0 fail

34. SAM Reset

prototype: int __stdcall YW_SAM_Reset(int ReaderID,int SAMIndex, int *rtLen, unsigned char *pData);

Param:

Param	Type	
ReaderID	int	Reader ID
SAMIndex	int	SAM Index
rtLen	int *	Length of PData
pData	unsigned char *	Data return of Sam Reset

Return: 1 success, 0 fail

35. Excute COS Command of SAM

prototype: int __stdcallYW_SAM_COS(int ReaderID,int SAMIndex, int LenCOS, unsigned char *Com_COS, int *rtLen, unsigned char *pData);

Param:

Param	Type	
ReaderID	int	Reader ID
SAMIndex	int	SAM Index
LenCOS	int	Length of COS Command
Com_COS	unsigned char *	COS Command

rtLen	unsigned char *	Length of pData
pData	unsigned char *	Data return after excution of COS Command

Return: 1 success, 0 fail

36. SAM PPS Baud

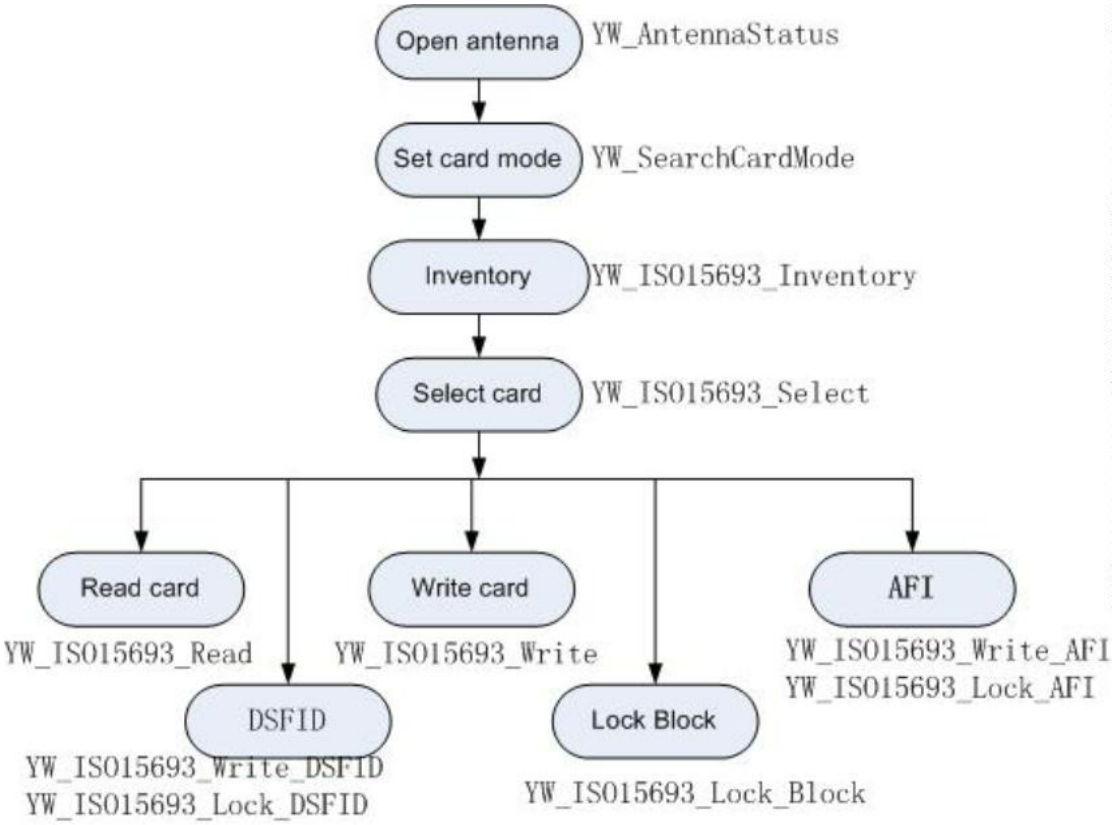
prototype: int __stdcall YW_SAM_PPSBaud(int ReaderID,int SAMIndex, int BaudIndex);

Param:

Param	Type	
ReaderID	int	Reader ID
SAMIndex	int	SAM Index
BaudIndex	int	0x00->9600 (Default) 0x01->19200 0x02->38400 0x03->55800 0x04->57600 0x05->115200

Return: 1 success, 0 fail

6 ISO15693 card operation



7 Order Infomation

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