

# HYINTECH

## HYB804

4 Antenna UHF Reader&Writer



**Size: 230mmx170mmx40mm**

**OEM, No Logo on Product is Available**

## GENERAL DESCRIPTION

HYB804 is a high performance UHF RFID Separated reader, support 4 external antennas. It is designed upon fully self-intellectual property. Based on proprietary efficient digital signal processing algorithm, it supports fast tag read/write operation with high identification rate. It can be widely applied in many RFID application systems such as logistics, access control, anti-counterfeit and industrial production process control system.

## FEATURES

- Self-intellectual property;
- Support ISO18000-6C(EPC C1G2) , ISO18000-6B protocol tag;
- 902~928MHz frequency band(frequency customization optional);
- FHSS or Fix Frequency transmission;
- RF output power up to 30dbm(adjustable);
- 4 TNC antenna port;
- Support auto-running, answer and trigger work mode;
- Support EPC and TID inventory;
- Low power dissipation with single +9 DC power supply;
- Support RS232, RS485, TCPIP with other interface optional;
- Built-in LED, Buzzer, GPIO and Relay;
- High reliability design.

## CHARACTERISTICS

- Absolute Maximum Rating

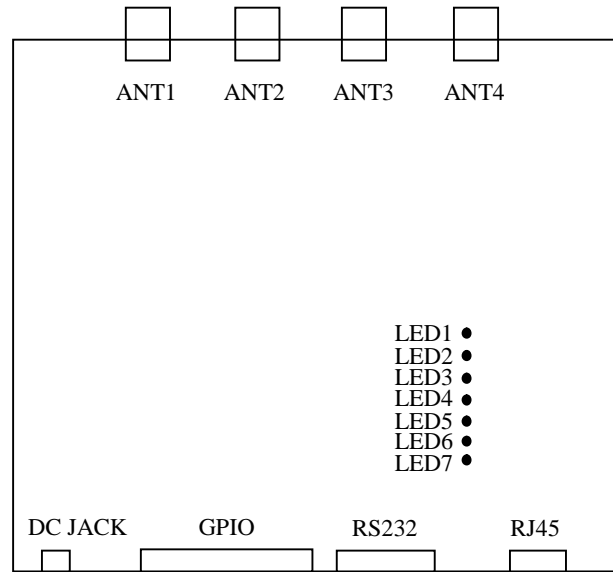
ITEM	SYMBOL	VALUE	UNIT
Power Supply	VCC	16	V
Operating Temp.	T <sub>OPR</sub>	-10~+55	°C
Storage Temp.	T <sub>STR</sub>	-20~+75	°C

- Electrical and Mechanical Specification

Under T<sub>A</sub>=25°C , VCC=+9V unless specified

ITEM	SYMBOL	MIN	TYP	MAX	UNIT
Power Supply	VCC	8	9	12	V
Current Dissipation	I <sub>c</sub>		600	1500	mA
Frequency	F <sub>REQ</sub>	902		928	MHz
Size	Size		230x170x40		mm

## INTERFACE



### 1. Power (DC JACK)

No.	Symbol	Comment
Central	PWR	+9VDC
Outer	GND	Ground

### 2. GPIO (DB15 Female)

No.	Symbol	Comment
1	Output1	General Output1
2	Output2	General Output2
3	Output3	General Output3
4	Output4	General Output4
5	Output5	General Output5
6	Output6	General Output6
7	Output7	General Output7
8	Output8	General Output8
9	TGIN	Trigger input with internal pull-up to 5V through a 10k resistor
10	R+	R+ of RS485
11	R-	R- of RS485
12	GND	Signal Ground
13	NO	Normal-Open terminal of internal relay
14	NC	Normal-Close terminal of internal relay
15	CM	Common terminal of internal relay

### 3. Serial communication port RS232 (DB9 Male)

No.	Symbol	Comment
1	nc	Reserved
2	TXD	General Output2
3	RXD	General Output3
4	nc	Reserved
5	GND	Ground
6	nc	Reserved
7	nc	Reserved
8	nc	Reserved
9	nc	Reserved

### 4. TCPIP network (RJ45)

### 5. TNC antenna port ANT1~ANT4

### 6. LED indicator LED1~LED7

No.	Symbol	Comment
1	LED1	Antenna 1 active indicator
2	LED2	Antenna 2 active indicator
3	LED3	Antenna 3 active indicator
4	LED4	Antenna 4 active indicator
5	LED5	Tag-detected indicator
6	LED6	Command-executing indicator
7	LED7	Power-on indicator

## Outstanding Features

Technically, Separated UHF Reader is be with much more higher requirement on design than Integrated Reader. As Separated Reader, need much more better anti-collision capability, and better resolution on RF signal processing. It's with much more complex mechanism than Integrated one.

However, nowadays, most of supplier of Separated UHF reader ,just adding the antenna interface to the Integrated one, and named it as Separated one. It seems no different from outside, but during the real application, will got problem.

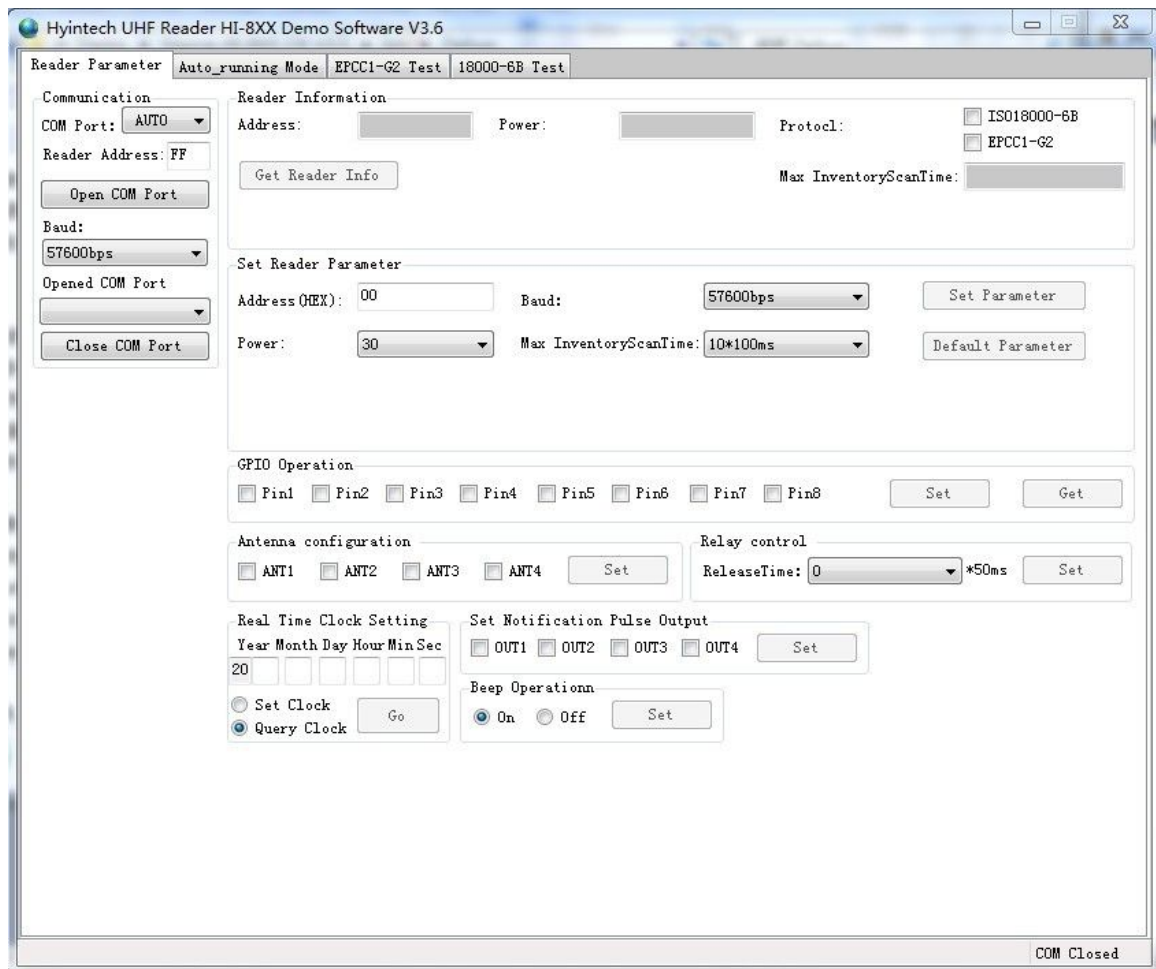
Most of the Reader from China supplier is with simple function, and operation on tag. No like the famous brands in the world with the full functions. HI-B804 is the similar one to American INTERMAC, whatever, quality, capability, and functions. But with much more lower price.

Partial List of HYB804's advanced Features

Items	Hyintech HYB804	Reader from Other China Mainland supplier
Work mode	Three patterns of modes: active mode, answer mode and Trigger mode.	Ordinary just one mode, at most 2 modes.
Anti-collision	Excellent anti-collision . No Bug.	Normal performance in anti-collision, but some bugs Existed. Low stability
Data storage	Full Data storage, including antenna port ID, Time, Times of reading, and tag data and, etc.	Ordinary, just tag data, no other.
Tag data transfer	Multi tag data transfer mechanism, including command request, timing sending, adding noticing, changing noticing, and etc.	Ordinary, just 2 mode, some one, just with one mode
Real-time clock	Build-in real time clock, Data reserved in power off, and be with timestamp while tag reading and writing.	No
EAS function	Completely support EAS function, and Relay trigger.	No
Tag privacy function	Completely support tag privacy function operation.	No
High-speed Tag R/W ;	Support high-speed data operation like erase ,write, Reader. 4 times faster than ordinary reader.	No
Function configuration	Multi -function configuration, and Saved in power off	Just be with simple configure
EPC Tag ID zone Initial in Patch	Changing the EPC number into different ID in Consecutive serial number for whole patch of tag.	No such function. If do it, have to operate the tag one by one.

## DEMO SOFTWARE

SDK Include Full Demo Source Code, and full Manuals. Any further development could develop easily based on it. Any Technical Problem during your application and development, could consult our professional engineer team. Free Engineering Consultancy is one of our Outstanding After Service. Our Professional Engineer with rich experience on deployment, will leave you guidance and instruction, solving your technical problem on programming.



The screenshot displays the 'Hyintech UHF Reader HI-8XX Demo Software V3.6' interface. It features several configuration tabs: 'Reader Parameter', 'Auto\_running Mode', 'EPCC1-G2 Test', and '18000-6B Test'. The 'EPCC1-G2 Test' tab is active, showing settings for EAS Sensitivity (Relay release 3s when detected EAS), Mask Setting (EPC, TID, User), and Response conditions Setting (Timer notify, RepPauseTime: 0 \*1s). Other sections include Query Tag Type Protocol (EPCC1-G2, 18000-6B), Pulse interval (10ms), Work Mode (Answer Mode), and Reader storage blocks Tag information. The tag information table is empty. At the bottom, there is a 'Read Auto\_running Mode Data' section with a text area and 'Get'/'Clear' buttons, and a 'COM Closed' status indicator.

NO.	EPC	First read tag time	Last read tag time	ANT	Times

Hyintech UHF Reader HI-8XX Demo Software V3.6

Reader Parameter | Auto\_running Mode | EPCC1-G2 Test | 18000-6B Test

List EPC of Tags

NO.	EPC	EPC Length	ANT (4, 3, 2, 1)	Times

Mask conditions

Mask Start Bit Address(Hex): 0000 Mask Bit Length(Hex): 00  Enable

EPC  TID  User Mask Data(Hex): 00

Read Data / Write Data / Block Erase

Password  EPC  TID  User

Address of Tag Data(Word/Hex): 00

Length of Data(Read/Block Erase): 4

Password(Read/Block Erase) (0-120/Word/D): 00000000

Write Data (Hex): 0000

Set Protect For Reading Or Writing

Lock of Password

Kill Password  Access Password

Readable and writeable from any state

Readable and writeable from the secured state

Permanently readable and writeable

Never readable and writeable

Lock of EPC TID and User Bank

Writeable from any state

Writeable from the secured state

Permanently writeable

Never writeable

Access Password (8 Hex): 00000000

Query Tag

Read Interval: 50ms

Kill Tag

Kill Password (8 Hex): 00000000

Write EPC (Random write one tag in the antenna)

Write EPC: (1-15Word) 0000

Access Password (8 Hex): 00000000

Read Protection

Access Password (8 Hex): 00000000

EAS Alarm

Access Password (8 Hex): 00000000

Alarm  No Alarm

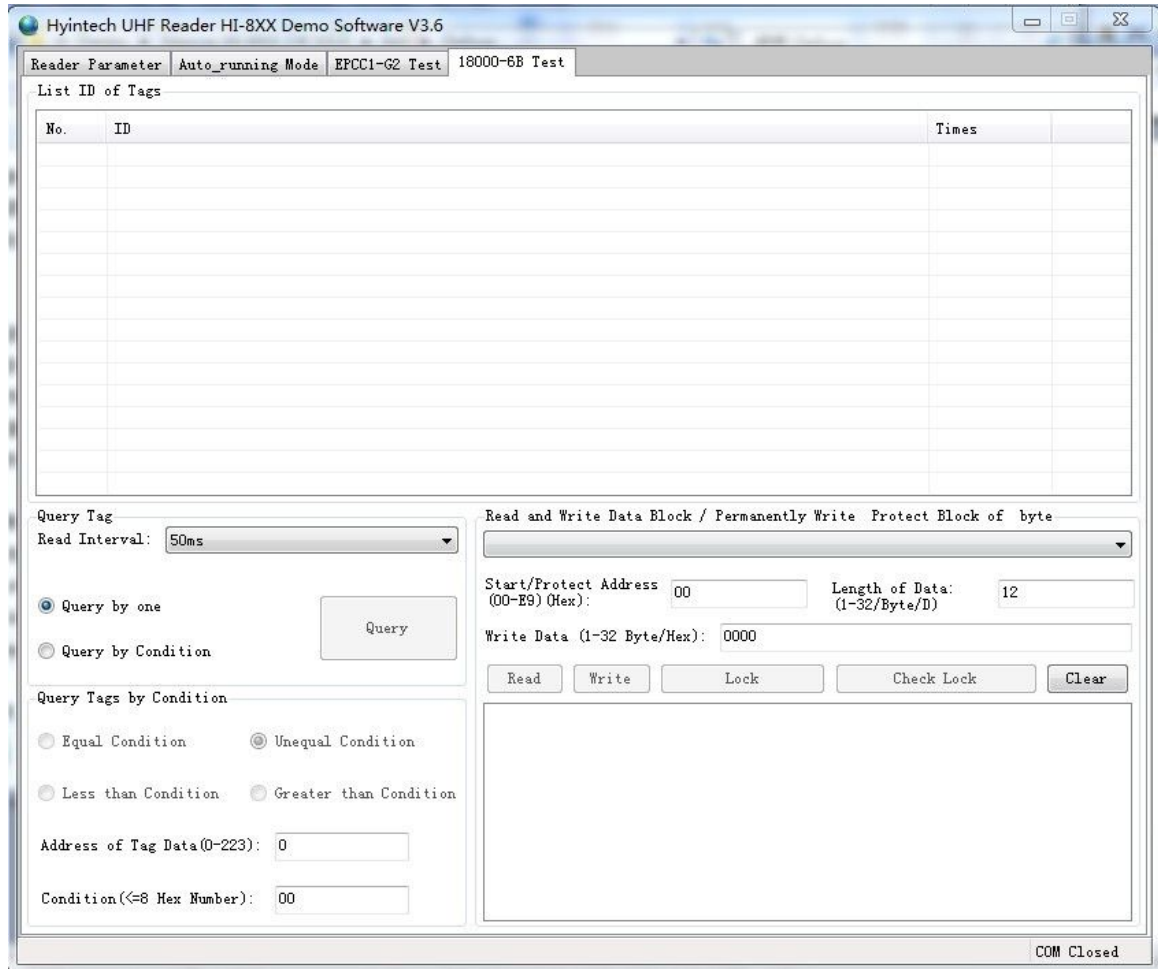
Lock Block for User (Permanently Lock)

Address of Tag Data (Word): 0 and 1

Access Password (8 Hex): 00000000

COM Closed





Hyintech Team

Supply You Best Products,

Free Detailed Manual and SDK

Most Professional Technical Support

Be Your Best Friend and Loyal Long Term Partner.

More Detail Please visit Our website [www.hyintech.com](http://www.hyintech.com)