HYINTECH

HYB804

4 Antenna UHF Reader&Writer



Size: 230mmx170mmx40mm

OEM, No Logo on Product is Available

 \bigoplus <u>www.hyintech.com</u> \bigoplus

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

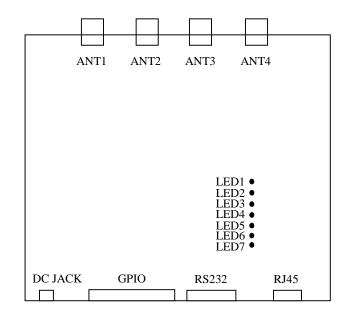
• Absolute Maximum Rating

ITEM	SYMBOL	VALUE	UNIT
Power Supply	VCC	16	V
Operating Temp.	T _{OPR}	-10~+55	°C
Storage Temp.	T _{STR}	-20~+75	°C

Electrical and Mechanical Specification Under T_A=25°C, VCC=+9V unless specified

ITEM	SYMBOL	MIN	TYP	MAX	UNI T
Power Supply	VCC	8	9	12	V
Current Dissipation	Ic		600	1500	mA
Frequency	F _{REQ}	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
9	TOIN	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	СМ	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



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Items	Hyintech HYB804	Reader from Other China
XX 1 1		Mainland supplier
Work mode	Three patterns of modes: active mode,	Ordinary just one mode, at most
	answer mode and Trigger mode.	2 modes.
Anti-collision	Excellent anti-collision . No Bug.	Normal performance in
		anti-collision, but some bugs
		Existed. Low stability
	Full Data storage, including antenna	
Data storage	port ID, Time, Times of reading, and	Ordinary, just tag data, no other.
	tag data and, etc.	Ordinary, just 2 mode, some
	Multi tag data transfer mechanism,	one, just with one mode
Tag data transfer	including command request, timing	one, just with one mode
Tug dutu transfer	sending, adding noticing, changing	
	noticing, and etc.	
		No
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.	
	and Relay utgget.	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.	
Function confirmation	Multi function and investigation	Just be with simple configure
Function configuration	Multi -function configuration, and Saved in power off	
	Survei in power on	No such function. If do it, have
EPC Tag ID zone	Changing the EPC number into different	to operate the tag one by one.
Initial in Patch	ID in Consecutive serial number for	
	whole patch of tag.	

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.

ader Parameter Auto	_running Mode EPCC1-G2 Test	18000-6B Test		
ommunication OM Port: AUTO 🔻	Reader Information Address:	Power:	Protocl:	IS018000-6B
eader Address: FF			II COLL.	EPCC1-G2
	Get Reader Info		Max InventoryS	canTime:
Open COM Port				
aud: 7600bps 🔹				
7600bps 🔹	Set Reader Parameter			
	Address(HEX): 00	Baud:	57600bps 👻	Set Parameter
Close COM Port	Power: 30	▼ Max InventoryScanTime	e: 10*100ms	Default Parameter
	In managements			
	Antenna configuration	'3 🕅 ANT4 Set	Relay control ReleaseTime: 0	▼ *50ms Set
	Real Time Clock Setting	Set Notification Pulse Outp	ut	
	Year Month Day Hour Min Sec	🔲 OUT1 🛄 OUT2 🛄 OUT3 📄	OVT4 Set	
	20	Beep Operationn		
	Set Clock Go Go	🖲 On 🔘 Off 🛛 Set		
	eddy crock			

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ader Parameter	Auto_running Mode E	PCC1-G2 Test 1800	00-6B Test			
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) None		Mask Start bit	address(Hex): 0000 Mask :	Bit Length (Hex) ⁰⁰	RepPauseTi	.me: 0 • •1
EAS Accura(8	▼ Set	Mask Data(Hex)		Set]	Set
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ulse interval:	Wa	rk Mode				
ulse Time: 10ms	▼ Set Mo	de Select: Answ	er Mode 👻	Set	Get Sys	stem Parameter
leader storage b	locks Tag information					Association
NO. EPC			First read tag time	Last read tag	ime ANT	Times
				Get Tag	Buffer Info	Clear Tag Buffer
lead Auto_runnin	g Mode Data					
						*
						Get
						Get
						Clear
						*

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	Parameter Auto_running Mode E	PCC1-G2 Test 18	000-6B Test			
ist	EPC of Tags	10		Ĩ	Query Tag	
NO.	EPC	EPC Length	ANT (4, 3, 2, 1)	Times	Read Interval: 50ms	▼ Query tag
					Kill Tag	
					Kill Password 00000000 (8 Hex):	Kill Tag
					Write EPC (Random write one tag in	n the antenna)
	conditions				Write EPC: (1-15Word) 0000	
		Mask Bit Length	(Hex):00	📄 Enable	Access Password (8 Hex): 00000000	Write EPC
) EI	PC 🔘 TID 🔘 User 🛛 Max	sk Data(Hex):00			Read Protection	
 1 - 223	Data / Write Data / Block Erase				(
ead	Data / Hrite Data / Diock Erase				Access Password 0000000	1
					(8 Hex):	
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Addre	ess of Tag Data(Word/Hex): 00				C. 1 D	RPC
engt	h of Data(Read/Block Erase: 4				Set Privacy Withou	
	ord (Read/Block Erase) 00000000				Reset Privacy	
0-12	0/Word/D):				Check Privacy	
rite	e Data (Hex): 0000				EAS Alarm	
	Write BlockWrite BlockErase	Clear				
Read	rotect For Reading Or Writing				Access Password 00000000 (8 Hex):	
10,00,00 072 - 5		Password	I 🎯 EPC 🜔 TID	🔊 User	California (California)	
10,00,00 072 - 5	of Password		C TID and User H		Alarm No Alarm EAS Configure	Check Alarm
et P		Ø Writeabl	e from any stat] [
et P Lock	Xill Password 🔘 Access Password		+1	red state	Lock Block for User (Permanently	Lock)
et P Lock k Re	eadable and writeable	O Writeabl		0150,50,60,612	(
et P Lock k Re fr	eadable and writeable com any state		tly writeable			
Cet P Lock () R () R fr S () R fr	eadable and writeable	Permanen Never wr	tly writeable		Address of Tag Data 0 and 1	•



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leader Pa List ID		Auto_running Mode	EPCC1-G2 Test	18000-6B Tes	:t				
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Hyintech Team

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Be Your Best Friend and Loyal Long Term Partner.

More Detail Please visit Our website www.hyintech.com