

UHF Desktop Reader Instruction

HYR810



Winnix Technologies Co., Limited



Brief Introduction

- UHF RFID high performance desktop reader embedded with module which designed by using Impinj INDY chip, maximum power supply is 25dBm. 15dBm is recommended as fixed power
- USB interface is available for power supply and communication, which reaches the most simply connection
- With internal 3dBi circular polarization antenna, tag reading distance is adjustable from 0 to 1 meter.
- High read rate as 200 tag/s
- Two GPIO connect to LED light and buzzer, clients can easily control IO according to the special requirement
- Good writing performance, well suitable as desktop reader or identifying device for high performance industrial application.

Technical Data

No	Item	Technical Data	Unit	Remark
1	Fixed current	380	mA	USB Power supply @ 15dBm
2	Standby current	≤100	mA	Connect by USB
3	Frequency range	840~960	MHz	
4	Default working frequency	Frequency hopping	MHz	Frequency interval 250KHz
5	Channel bandwidth	250	KHz	
6	Frequency hopping speed	≤2	s	
7	Fixed power	15	dBm	Recommended Value
8	Stepping interval	0.5	dB	5~25dBm, adjustable by software
9	Label protocol	EPC C1G2 /ISO18000-6C		
10	Communication Protocol	Asynchronous serial ports		



11	Starting time	≤ 50	ms	
12	Radio-frequency rising time	≤ 500	μs	
13	Radio-frequency dropping time	≤ 500	μs	
14	Adjacent channel power leaking ratio	≤ -40	dB	$\pm 1\text{CH}$
		≤ -60	dB	$\pm 2\text{CH}$
15	Frequency stabilizing ratio	± 10	ppm	$-25^{\circ}\text{C} \sim +40^{\circ}\text{C}$
		± 20	ppm	$-40^{\circ}\text{C} \sim +60^{\circ}\text{C}$
16	Max reading range	1	m	Internal 3dBi antenna
17	Reading tags' rate	$> 200/\text{s}$		

Appearance and Structure

- Dimension(Length X Width X Height): 129×80×22mm
- Weight: 180g

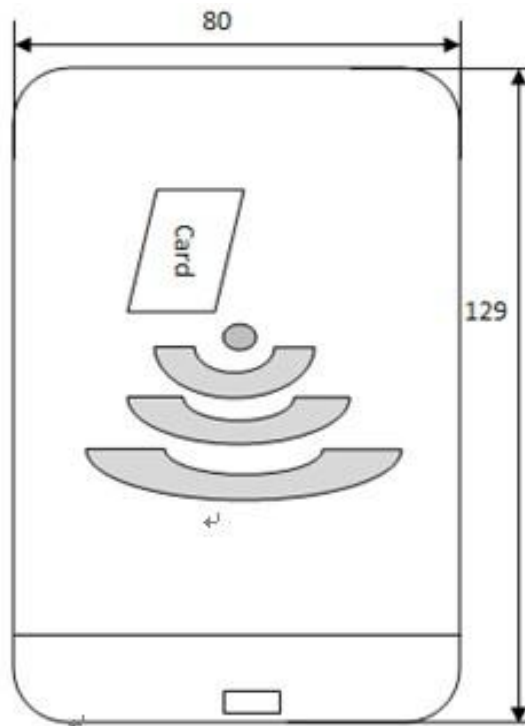


Fig 1 Front view of the desktop reader

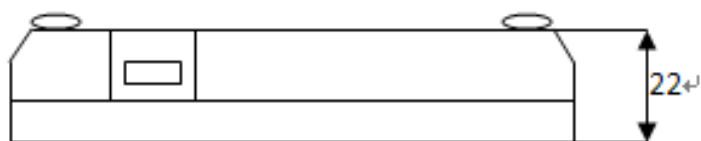


Fig 2 Side view of the desktop reader

Interface Definition

Pin	Signal name	Signal Direction	Function/compatibility description	Remark
1	VCC	Input	USB supply	
2	GND	Input	USB supply	
3	USB_D+	Bi-direction	USB connect computer	
4	USB_D-	Bi-direction	USB connect computer	
5	GPIO1	Bi-direction	Connect LED, Red	Computer control
6	GPIO2	Bi-direction	Connect to buzzer	Computer control

Environment Requirement

No	Item	Technical data	Unit	Remark
1	Working temp.	-20~+70	°C	
2	Storage temp.	-40~+85	°C	
3	Relative humidity	5%~95%	RH	Non-condensation