

UHF RFID Reader Module

HYM360



Winnix Technologies Co., Limited

Brief Introduction

HYM360 UHF Reader Module complied with EPC C1G2 Protocol, its working frequency is 840 MHz ~960MHz, with standard 3dBi antenna, the reading distance can reach 2 meters. With low power consumption, simple power supply and interface circuit, a high-performance and cost-effective RFID system can be established. It is suitable for retail, access control, medical industry, food tracking, anti-counterfeit and so on, especially for small size hand-held UHF RFID reader.

Technical Data

No.	Item	Technical Date	Unit	Remark
1	Fixed Current	≤ 380	mA	25dBm
2	Standby Current	≤ 1	mA	EN Pin Low Level
3	Frequency Range	840~960	MHz	
4	Default Working Frequency	Hopping Frequency	MHz	Frequency Interval 250KHz
5	Fixed Power	25	dBm	
6	Stepping Interval	1	dBm	10~25dBm adjustable by software
7	Label Protocol	EPC C1G2 /ISO18000-6C		
8	Starting Time	≤ 50	ms	
9	VSWR	≤ 1.5		
10	Max Reading Range	2	m	3dBi Antenna

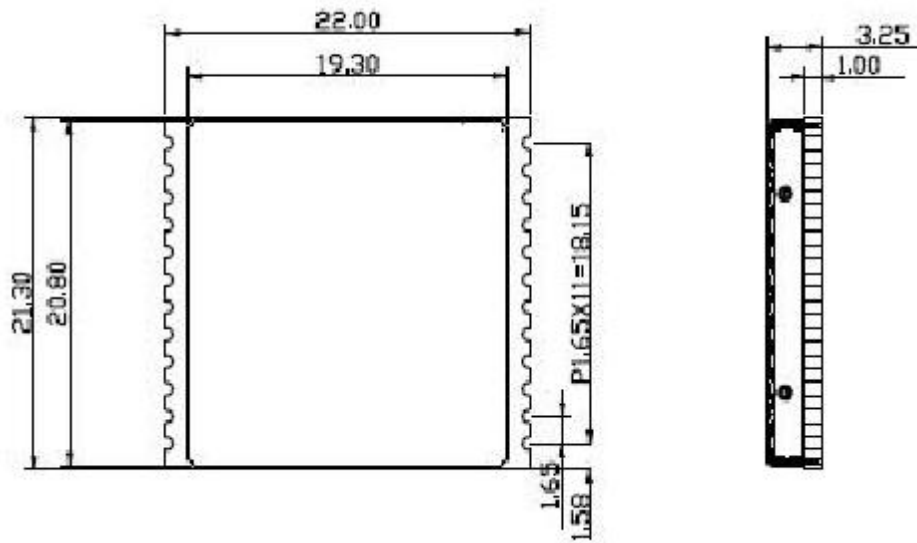
Characteristics of DC

Data	Min Value	Typical Value	Max Value	Unit	Remark
Voltage of Power	3.3	4.2	5	V	DC
Input High Level	2	3.3	3.5	V	GPIO
	2	-	5	V	EN
Input Low Level	-0.5	0	0.5	V	GPIO
	-	-	0.18	V	EN
Output High Level	2.3	-	3.3	V	GPIO
Output Low Level	0	-	1	V	GPIO
Enable Current	2	5	25	uA	$V_{EN} \geq 2V$

Requirement on Antenna

No.	Item	Technical Data	Unit	Remark
1	VSWR	≤ 1.5		

Appearance and Structure



Drawing 1 Size of Reader Module

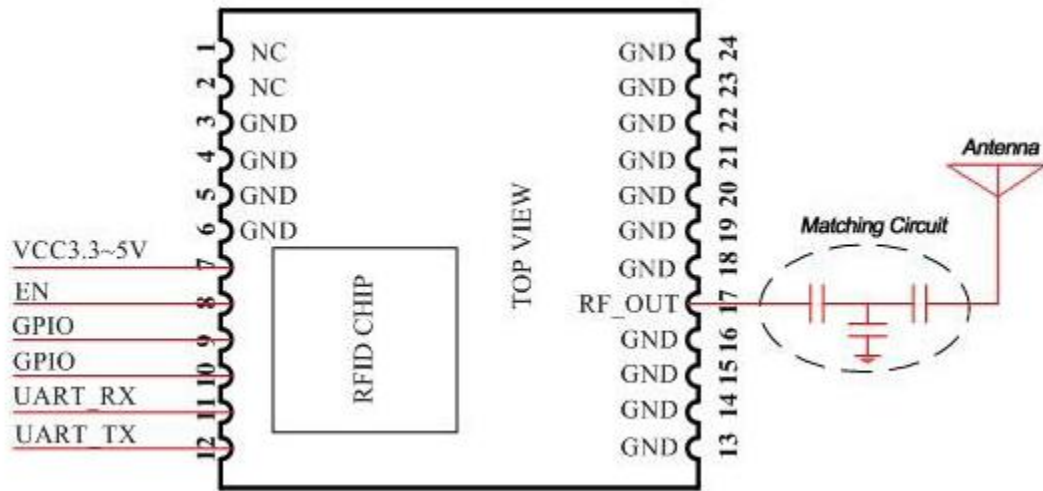
Interface Definition

PIN	Signal Name	Signal Direction	Function/Compatibility Description
1~2	NC		NC
3~6	GND	-	Module Connecting Ground
7	VDD	Input	Module Supplying power
8	EN	Input	Module Enabling, Highly Effective
9	GPIO	Output	
10	GPIO	Output	
11	UART_RX	Input	
12	UART_TX	Output	
13~16	GND	-	Module connecting ground
17	RFOUT	Bidirection	Module Radio frequency Input and output interface
18~24	GND	-	Module connecting ground

Environment Requirement

No.	Item	Technical Data	Unit	Remark
1	Working temperature	-20~+70	°C	
2	Storage temperature	-40~+85	°C	
3	Relative humidity	10%~90%	RH	

Circuit for Reference



Drawing 2 Circuit for reference