



Turn on the value of data

# **S120 USB Desktop Reader**

# **User Manual**



Welcome to become user of Hopeland RFID products.

Thank you for choosing the USB desktop reader S120,

hope to bring convenience for your work



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# 1. Technical Specifications

## 1.1 Features

The S120 is a high-performance UHF RFID reading and writing device with integrated antenna. It supports ISO18000-6C protocol and works in frequency bands from 902MHz to 928MHz, 866MHz to 868MHz, with output power from 1 to 30dBm, featuring fast speed, high accuracy, strong anti-interference capability and easy to use.

## 1.2 Main Functions And Technical Performance

### 1.2.1 Product Features

- ✧ Air protocols: supports all mandatory ISO18000-6C commands
- ✧ USB driver-free communication
- ✧ Built-in circularly polarized antenna
- ✧ Support tag data filtering
- ✧ RF output power adjustable
- ✧ Frequency hopping mode: fixed frequency / frequency hopping optional
- ✧ Work mode: protocol mode / HID keyboard mode
- ✧ Support online upgrade

### 1.2.2 Performance Parameters

- ✧ Working frequency: FCC,902MHz~928MHz, ETSI, 865MHz~868MHz
- ✧ RF output power (port): 30dBm±1dB(MAX)
- ✧ Output power adjustment: 1 dB step
- ✧ Reading distance: 0~100cm (related to factors such as transmitting power, tag type and application environment)
- ✧ Channel occupied bandwidth: <200KHz
- ✧ USB power supply: 500 to 1000mA

### 1.2.3 Environmental Parameters

- ✧ Working temperature: -20°C ~ +70°C
- ✧ Working humidity: 5%~90%RH (+25°C)

## 2. Sketch map

### 2.1 Physical construction



Figure 2-1 S120 appearance

**S120 Volume Parameter is:** 170mm×120mm×17mm

### 2.2 Net Weight

About 0.25kg

### 2.3 Interface definition and status indicator description



Figure 2-2 S120 interfaces

- ① USB type C, power supply and communication interface.

② Function switch key, to manually switch between normal reader mode and HID keyboard mode.

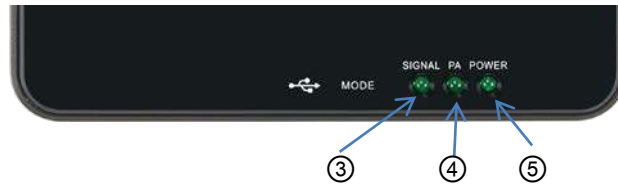


Figure 2-3 S120 indicators

- ③ SIGNAL-- Read Tag Signal Indicator
- ④ PA -- RF Signal Emitting Indicator
- ⑤ POWER -- Power Indicator

There are 3 indicators on the S120 USB desktop reader, corresponding to different states.

Power on without tag reading  
POWER light on

Tag reading is on but no tag is read  
PA and POWER lights on

Tag reading is on and the tag is read  
SIGNAL, PA and POWER lights are  
all on



## 3. Installation Instructions

### 3.1 Precautions

To ensure the normal and stable operation of the device and your personal property and safety, please carefully read the following notes before install S120 USB reader.

1. The choice of type and length limit of the USB cable.
2. When installing multiple readers, the way the readers are placed and the spacing between the readers should be appropriate to avoid Co-channel interference.

### 3.2 Installation Conditions

Before installing the reader, please check carefully whether the product is in good condition and the accessories are complete. If there is any parts missing or damage, please contact the supplier in time.

### 3.3 Device Connection

#### 3.3.1 Connect to a PC

- ✧ Connect S120 via USB cable
- ✧ After connecting to USB, after waiting for about 3 seconds, the S120 completes the initialization process and enters the standby state with a "drop" sound.

#### 3.3.3 Switch work mode

- ✧ The S120 has 2 work modes: normal reader mode (POWER light on) / HID keyboard mode (PA and POWER lights on at the same time).
- ✧ The S120 has a mode switch button, press and hold it for more than 1 second to switch modes, it will sound "drop" and restart after a successful switch.
- ✧ The S120's HID keyboard mode can also be switched and configured via the Desktop Writer software.

## 4. Packaging Accessories and Storage

### 4.1 Package

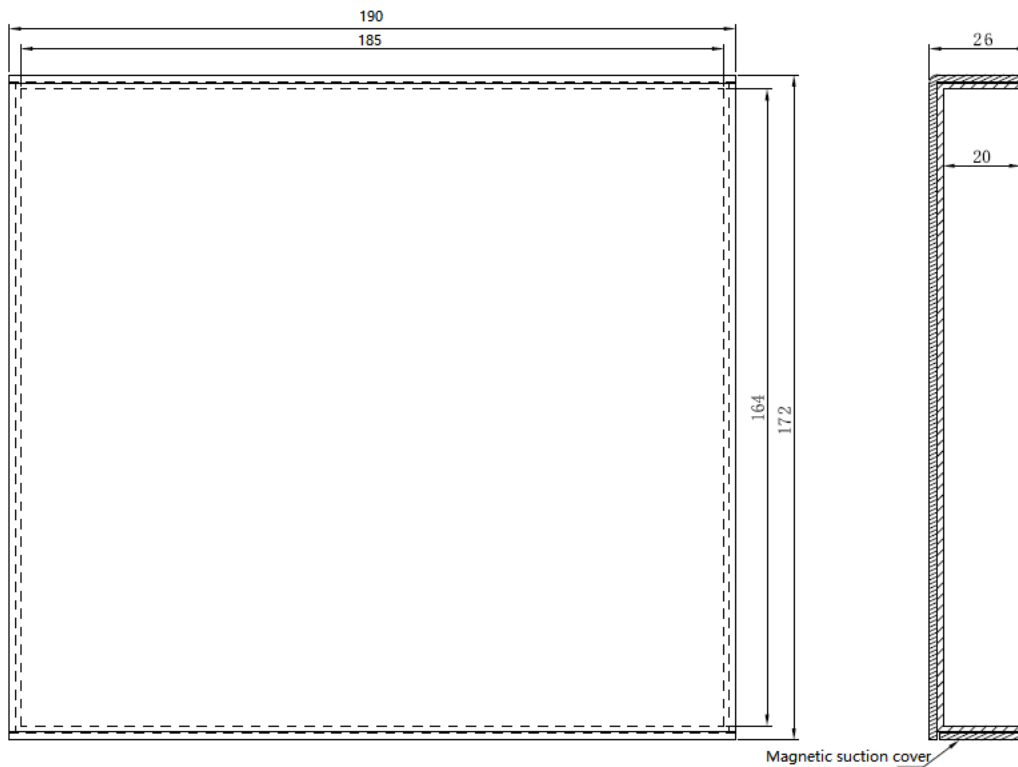


Figure 6-1 Package dimensions

Carton box size: 172mm × 190mm × 26mm

### 4.2 Accessories

In order to facilitate future storage and transportation, after unpacking the S120 USB desktop reader, properly store the box and packaging materials. In addition to the reader, the box also includes the accessories required for the use of the product. Please confirm whether the product and accessories are complete according to the product packing list. If there is any discrepancy or damage, please contact the after-sales service in time. The specific packing list is shown in Table 4-1:

Table 4-1 Packing list

No	Name	Unit	Quantity	Remarks
1	S120 USB desktop reader	1	Set	Included
2	USB cable	1	Pcs	Included
3	warranty card	1	Pcs	Included
4	Certificate of approval	1	Pcs	Included

### 4.3 Storage Requirements

S120 USB desktop reader should be stored in below conditions:

- ✧  Environmental temperature: -40 °C~+85 °C
- ✧  Relative humidity: 5% RH~90%RH