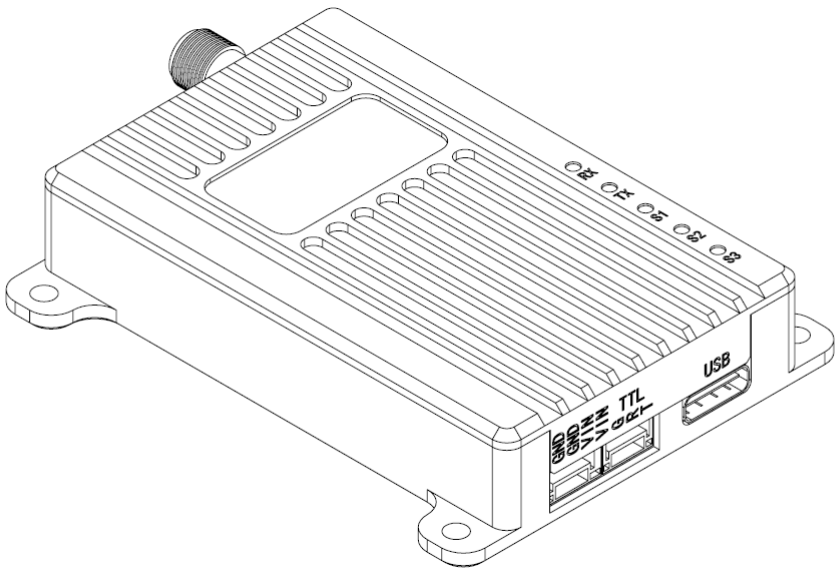
T900-35A-SMA User Manual

900MHz　3W Data link

Version：20250425V1.0



Catalogue

1.Product Overview

The T900-35A-SMA is a 3W miniaturized data transmission radio of the T900 series. It is mainly used for medium-distance data transmission. The product features small size, good integration and high sensitivity. The T900-35A-SMA data transmission radio operates in the frequency band of 902-928MHz. Under good environmental conditions, the maximum transmission distance from air to ground can reach over 50 kilometers.

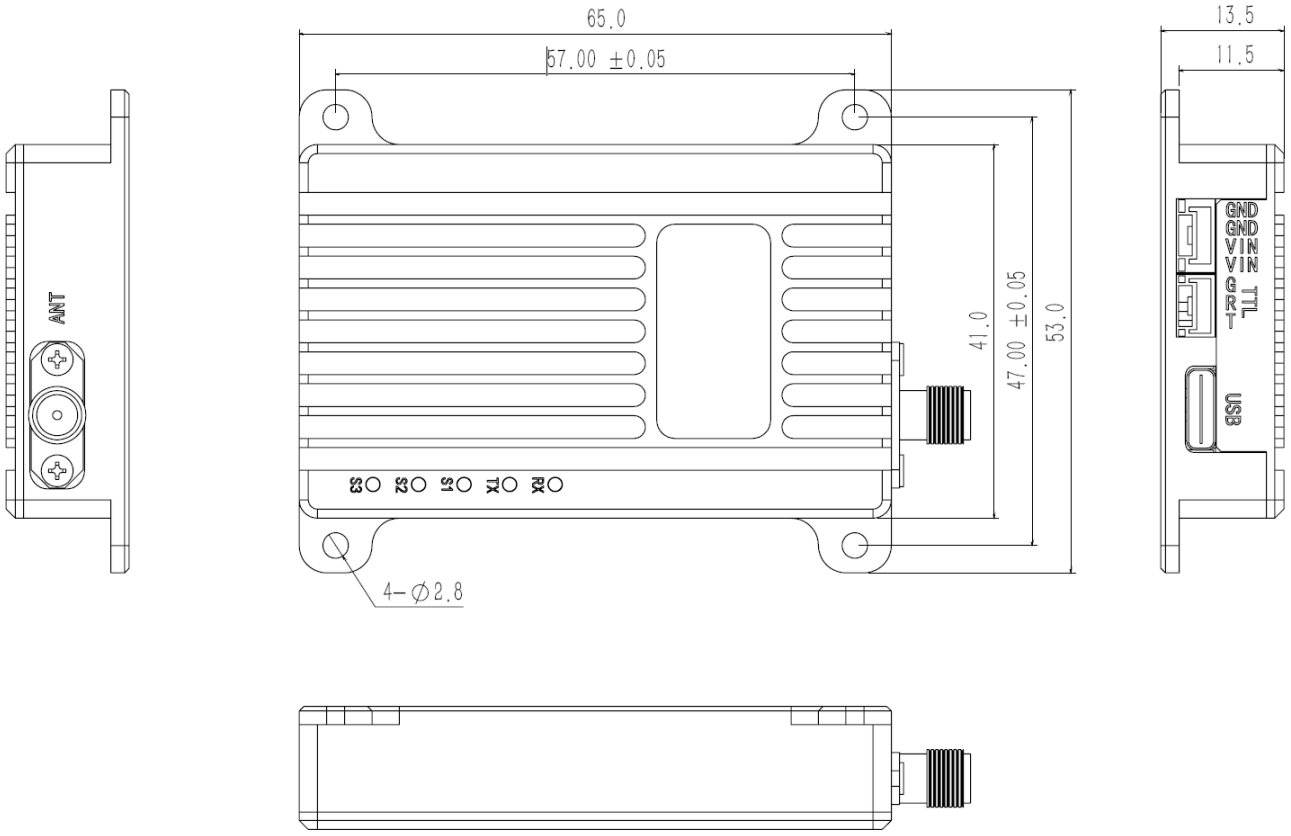
2.Product Features

- Frequency: 902-928MHz
- Spread spectrum mode: FHSS
- Encryption: AES 256
- Communication range: 50km+ (Air to ground LOS)
- Output power: 3W (35dBm)
- Interface rate: up to 276.4kbps
- Serial port baud rate: support 460.8kbps
- Working temperature: -40℃~ 65℃
- ◆ Sensitivity:

Interface rate	10^{-7} BER	Maximum user rate *
276.4kbps	-106 dBm	136kbps
230.4kbps	-107 dBm	116kbps
172.8kbps	-108 dBm	82kbps
115.2kbps	-109 dBm	48kbps
57.6kbps	-110 dBm	14kbps

3.Product dimensions and weight

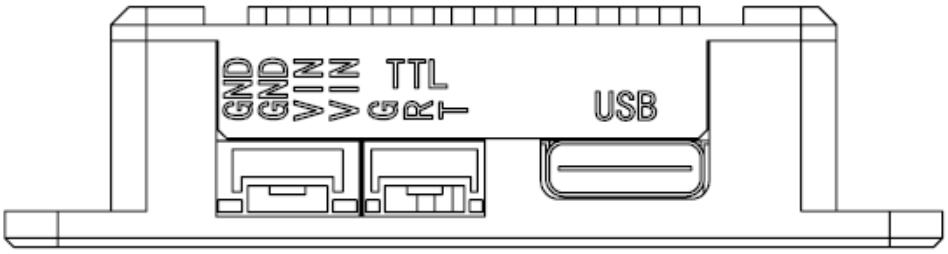
3.1 diagram of dimensions



- Dimension: 74mm*53mm*13.5mm（Including SMA 9mm and fixing holes）
- Weight: 56g

4.Product interface definition

4.1 Interface diagram



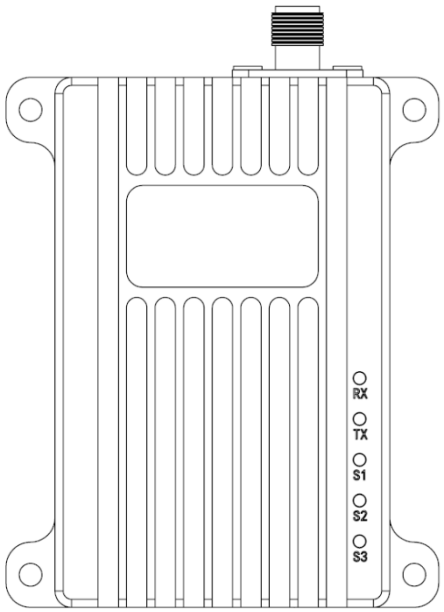
The device has three interfaces: one 4-pin power supply port, one 3-pin data serial port, and one USB configuration serial port. When connecting the device's serial ports, pay attention to whether it is TTL level or RS232 level.

Only one of the two serial ports can be used as a data port. The USB interface is factory-configured as a serial port by default. When the hardware is modified to a data port, the original 3-pin serial port can only be used as a configuration serial port. The power interface adopts a male GH1.25-3 pin terminal, supporting voltages ranging from 9 to 26V.

4.2 Interface definition

T900-35A-SMA Interface definition			
No	Interface	Description	Note
1	GH1.25-4PIN power	Yellow line：GND White line：GND Black line：VIN Red line：VIN	DC9~26V
2	GH1.25-3PIN Serial port	Yellow line ： TX White line ： RX Black line ： GND	Note whether the serial port is at TTL level or RS232 level
3	USB	Configuration port: Parameter Configuration (default factory) Data port: Hardware modification is required for support	

5.The meaning of the product status light



TX（red）

When the TX light is on, it indicates that the module is sending data。

RX（red）

When the RX light is on, it indicates that the module is receiving data。

Receive signal strength lamp（RSSI Three green lights)

The more energy lights there are, the greater the signal reception intensity will be.

The RSSI lamp represents the magnitude of the received signal strength	
RSSI The number of energy lights	Receive energy dBm
All three RSSI lights are on	-50dBm
Two RSSI lights are on	-80dBm
One RSSI light is on	-95dBm

Module type	Mode	T900-35A-SMA Indicator light status		
		RX	TX	RSSI 123
ALL	AT command configuration mode	off	off	off
master	Work normally	Flashing when receiving data	On	Proportional to the received signal strength
slave	Not synchronized	off	off	Cycle bright every 860ms
slave	After synchronization	on	Flashing when sending data	Proportional to the received signal strength
repeater	Not synchronized	It flashes alternately with the sending light	It flashes alternately with the receiving light	Cycle bright every 860ms
repeater	Not synchronized	It flashes when receiving data; otherwise, it remains on constantly	It flashes when sending data; otherwise, it remains on constantly	Proportional to the received signal strength

After the master and slave devices are successfully paired, the power light and TX light of the master device remain on constantly, while the power light and RX light of the slave device remain on constantly. If the master-slave pairing is unsuccessful, the RSSI of the slave device will remain in the search state. At this point, the configured parameters should be rechecked. When serial port data is being sent and received, the RX light of the master device and the TX light of the slave device will flash.