

## S95/S96-DTU WIRELESS MODEM

### OVERVIEW

S95/S96-DTU (433LXX-485)-V8 is a wireless data transmission radio using military-grade LoRa modulation technology. It has multiple transmission modes and works in the (410~441M) frequency band (default 433MHz). The radio provides a transparent RS485 interface, uses a plastic shell, a guide rail installation structure, and supports 8~28V (DC)/85~265V (AC) voltage input. LoRa spread spectrum technology will bring a longer communication distance and has the advantage of strong anti-interference ability.

As a communication medium, wireless data transmission radio has a certain scope of application, just like optical fiber, microwave, and open wire: it provides real-time and reliable data transmission of monitoring signals in a private network under certain special conditions. It has the characteristics of low cost, easy installation and maintenance, strong diffraction ability, flexible networking structure, and long coverage. It is suitable for occasions with many points and scattered locations and complex geographical environments. It can be connected to data terminals such as PLC, RTU, and sensors.



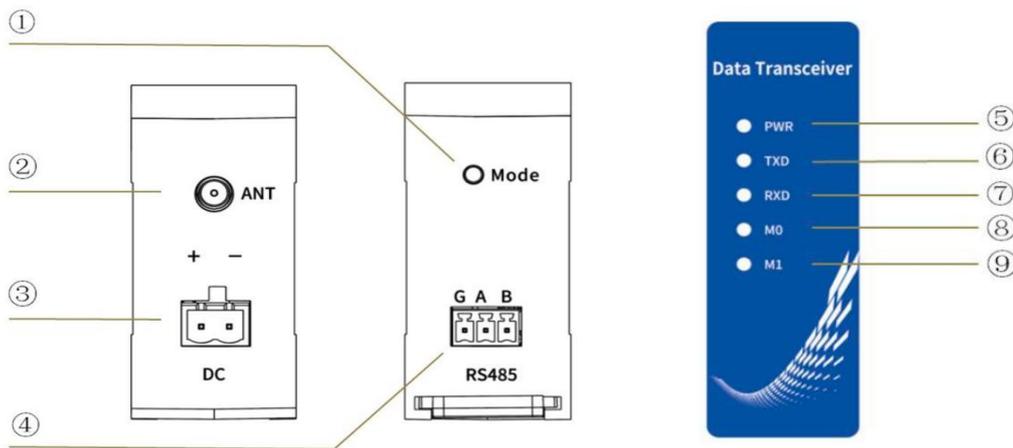
### MAIN FEATURES

- It adopts military-grade LoRa modulation technology, has data encryption, and the sub-packet length can be set;
- It adopts flame-retardant plastic shell and rail-type installation structure, which is convenient and efficient to install;
- It adopts hidden button to switch working mode to avoid false triggering, and the equipment works more reliably;
- It has a simple and efficient power supply design, supports power adapter or wire pressing, and supports 8~28V (DC)/85~265V (AC) power supply;
- The transmission power can reach up to 20/30dBm, and supports multi-level adjustment, and all technical indicators meet industrial standards;
- It supports Modbus protocol transmission;
- It supports wireless sending of command data packets, remote configuration or reading of radio station parameters;
- It supports communication key function to effectively prevent data from being intercepted;
- It has an operating temperature range of -40°C~+85°C, which can adapt to various harsh working environments;
- Multiple protection functions such as power reverse connection protection, over-connection protection, antenna surge protection, etc. greatly increase the reliability of the radio;
- The communication port and power interface adopt high isolation protection;
- Powerful software functions, all parameters can be set by programming: such as power, frequency, air rate, address TD etc.;
- Built-in watchdog and precise time layout. Once an abnormality occurs, the radio will automatically restart and continue to work according to the previous parameter settings.

### SPECIFICATION

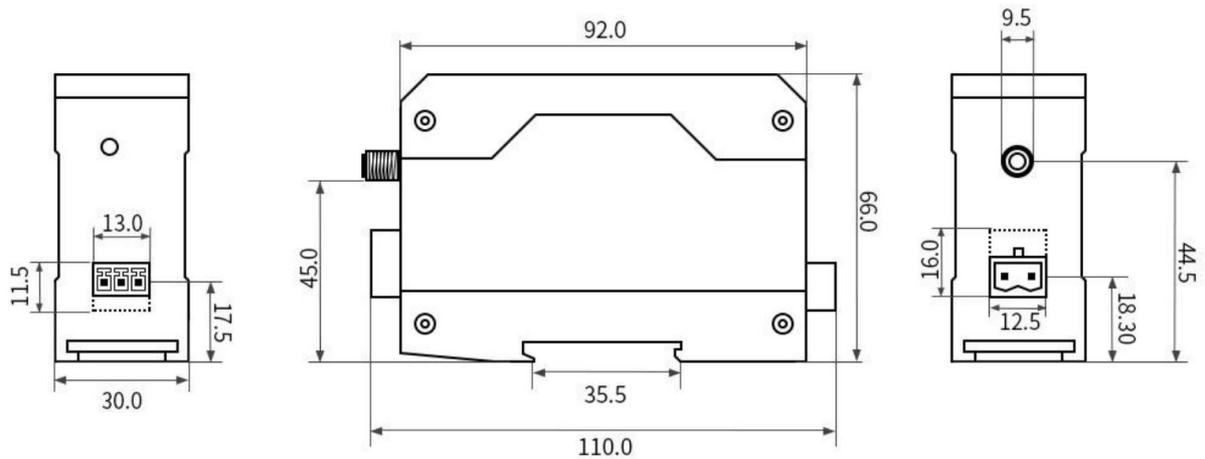
Dimension	92*66*30 mm
Weight	95 g
Working temperature	-40°C ~+85°C
Working voltage	8~28V (DC); 85~265V (AC)
Communication	RS485
Baud rate	Factory default 9600, Baud rate range 1200~115200
Address code	Factory default 0, A total of 65536 address codes can be set
Frequency range and number of channels	Default 433MHz (410~441Mhz), 32 channels
Transmit power level	Default 20dBm/30dBm (17/27dBm, 13/24dBm,10/21dBm)
Air speed rating	Default 2.4K bps (0.3K bps, 1.2K bps, 2.4K bps, 4.8K bps, 9.6K bps, 19.2K bps)

### INTERFACE DEFINITION



NO.	NAME	FUNCTIONS	EXPLANATION
1	Mode	Mode switch button	Working mode switching control
2	ANT	RF interface	SMA-K
3	DC	Power interface	DC power input port
4	RS485	RS485 communication port	Standard RS485 interface
5	PWR	Power indicator	Lights up when power is on
6	TXD	Send indicator	Flashes when sending data
7	RXD	Receive indicator	Flashes when receiving data
8	MO	Mode indicator	Working mode indicator light
9	M1	Mode indicator	Working mode indicator light

**DIMENSION**



**APPLICATION**

SenTec data transmission radio is suitable for various point-to-point and point-to-multipoint wireless data transmission systems, such as smart home, Internet of Things transformation, power load monitoring, distribution network automation, hydrological and water condition monitoring, tap water network monitoring, urban street light monitoring, air defense alarm control, railway signal monitoring, railway water supply centralized control, oil and gas supply network monitoring, GPS positioning system, remote meter reading, electronic crane scale, automatic target reporting, earthquake monitoring, fire prevention and theft prevention, environmental monitoring and other industrial automation systems, as shown below:

