LS-V5000 5W Wireless Audio Modem

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LS-V5000 radio module adopts double phase-lock loop, double VCO structure and high stability TXCO. With advanced arithmetic fault-rectify system, it has high stability and reliability. This module is usually used for industry control, water conservancy, rescue at sea, oil field management, wireless alarm and so on. Moreover, we can extend its functions and ODM products for you according to your specific application.

I. Features:

1. Specifications:

Double phase-lock loop, double VCO structure, high stability

Carrier frequency: VHF/UHF selectable

Air data rate: 1200/2400bps now

Interface: TTL/RS-232/RS-485 selectable

Modulation: FSK/MSK

Frequency stability: ±2.5ppm

Channel spacing: 25KHz

Antenna impedance: 50 ohm

Temperature: -30~+70C

Size: 85x58x16mm (without radiator)

Transmission distance can reach 10Km LOS

2. Receiving parameter:

Receiving sensibility: ≤-119dBm (more than 12dB SINAD)

Adjacent channel selectivity: ≥65dB

Intermodulation rejection: ≥65dB

Clutter and images rejection: ≥70dB

3. Transmiting parameter:

RF power: 5W

Frequency deviation: ≥ 5.0kHz

Adjacent channel power: ≥70dB

Transmitting current: ≤1.5A

II. Application of LS-V5000:

APRS, SCADA

Wireless alarm and security systems;
Wireless voice transmission system, wireless pagers
wireless monitoring and process control;
Wireless data transmission, automatic data collection system;

Wireless conference voting system;

Wireless POS, PDA wireless smart terminal;
Electronic bus station and intelligent traffic;
Wireless electronic display screen, LED display

RS232/RS485 to wireless;

III. How to use the LS-V5000 data radio module

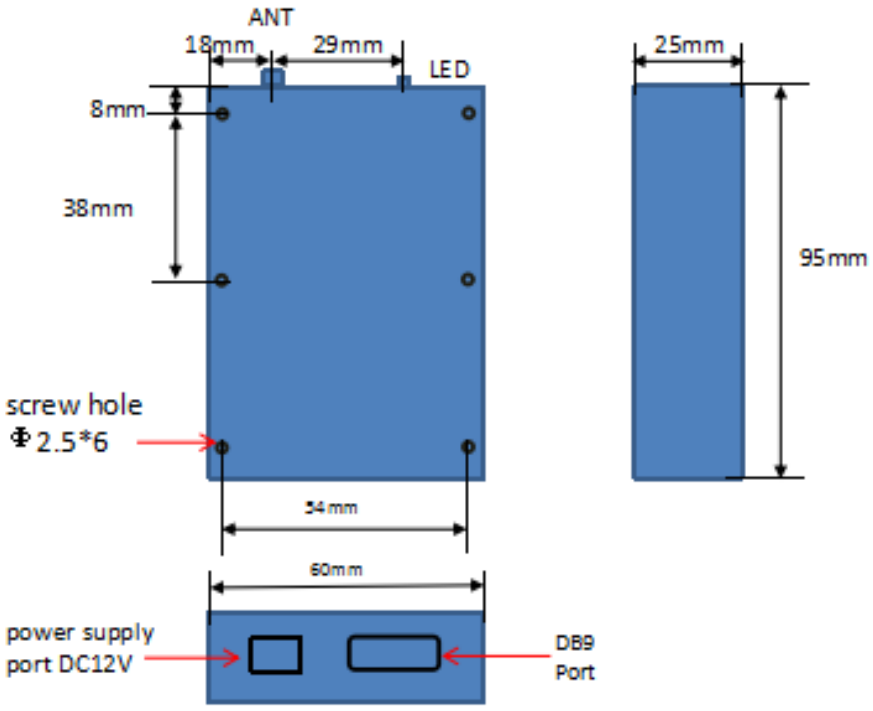
LS-V5000 provides RS-232, RS-485 or TTL level interface port for direct connection with PC, RS485 devices, micro-controller and other UART equipment.

1. Power supply

LS-V5000 works in supply voltage 12V DC. By using better ripple factor, LS-V5000 transceivers can also share power supply with other equipments. If possible, a voltage-stabilizing chip with 12V voltage is more recommended as the only power supply than switch power supply. But if only switch power supply available, the jam by switch pulse to the transceiver should be avoided. In addition, the reliable grounding must be used if there is other devices in this system. In case of failing to connect with the ground, it can form its own grounding but must be absolutely separated from the municipal electric supply.

2. Installing Diagram

Dimension

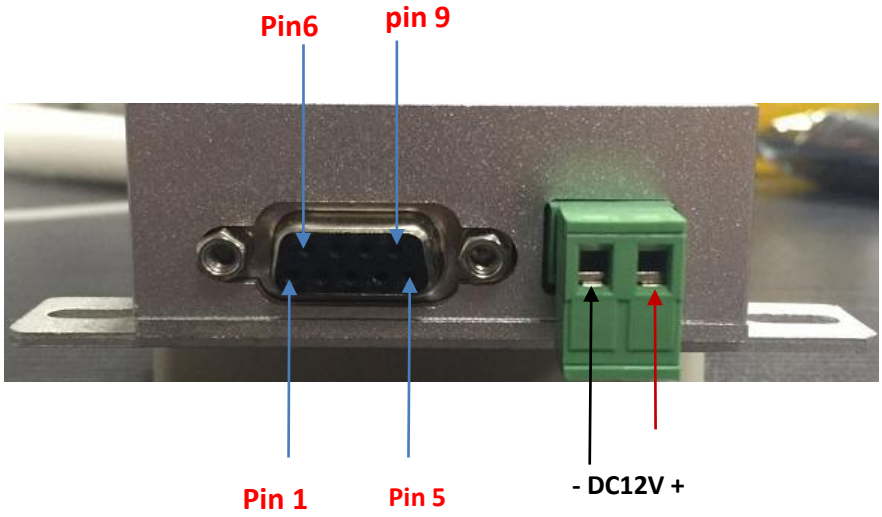


3. Pin Definition

The definitions and connection methods with terminals are shown in the following

Pin No.		Signal Name	Definition	Description	Remarks
Power	1	GND	Grounding of power supply		
	2	VCC	DC12V ±10%	Maximum transmission current: 1.5A	
Signal base	1	RxD (TTL)	Data receiving of TTL		
	2	B(TXD)	Data receiving	RS232 TX / RS485－B	Choose one
	3	A(RXD)	Data transmitting	RS232 RX / RS485－A	
	4	TxD (TTL)	Data Transmitting of TTL		
	5	DGND	Grounding of Signal		
	6	PTT	Audio transmitting control		
	7	MIC IN	Microphone input control		
	8	SPEAKER OUT	Speaker output control		
	9	TEST	Factory testing		

4. The connection schematic diagram of LS-V5000 transceivers with terminal



5. Setting of frequency, interface, and data format

Before using LS-V5000, users can use our software to setting frequency, interface baud

rate and data format.

A. Users can program any frequency value in the frequency range. Before place the order, clients need to confirm the frequency range.

B. Users can choose the interface rate according to requirement.

C. Users can change the data format individually.

6. Supported protocol and transmit capability

LS-V5000 transceivers offer transparent protocol to support various applications and protocols of users. If the user needs to decrease its cost or ease the workload of terminal CPU, we can add other specific functions based on the transparent protocol, such as addressing, data acquisition, command interpretation and so on.

7. Description of Indicator light

a. The red and blue lights will keep on about 50Ms when power suppy.

b. The red light is normally on when transmitting data, while the red light will crush out after ending the data transmission.

c. The blue light is normally on when receiving the air signal, while the blue light will crush out after receiving the air signal.

8. Standard configuration and Antenna configuration

A. Standard configuration

One LS-V5000 radio modem
one Power supply cable
one data connector line (flat cable)
Helical SMA antenna