

KYL-668H 25W Radio Modem

User Manual



KYL-668H Radio modem is a professional high performance data transmission radio combining with good DSP technology and wireless communication technology. This radio supports multiple frequency

band, VHF and UHF. With 25W power output, it has long transmission distance which reaches about more than 20km in open air.

I: Features:

1. High power output: 25W
2. Long transmission distance: More than 20km
3. VHF, UHF band selectable
4. Data transmission, voice transmission both ok
5. Double PLL, double VCO, High reliability

II. Data sheet

A. General Index

- frequency: VHF and UHF frequency band (150MHz, 230MHz, 433MHz, 450MHz ect.), can store about 400 channels
- frequency tolerance: $\pm 2.5\text{ppm}$
- Channel spacing: 25 KHz
- antenna impedance: 50Ω
- environment temperature: $-35\text{ }^{\circ}\text{C}\sim+75\text{ }^{\circ}\text{C}$
- modulate mode: MSK
- air baud rate: 1200bps/2400bps

B. Receiver Index

- sensitivity: $\leq 0.25\mu\text{V}$
- signal Noise Ratio(SNR): $\leq -50\text{dB}$
- Adjacent Channel Selectivity: $\geq 70\text{dB}$
- Inter modulation interference: $\geq 70\text{dB}$
- Spurious response immunity: $\geq 70\text{dB}$

C. Transmitter Index

- Transmit Power: 25W
- modulate distortion: $\leq 3\%$
- residual frequency modulation: $\leq -48\text{dB}$
- frequency deviation: $\leq 5\text{KHz}$
- ortho-channel power ratio: $\leq -70\text{dB}$
- stray power: $\leq 5\mu\text{W}$
- RF distance: 20km (25W RF power in the open air)

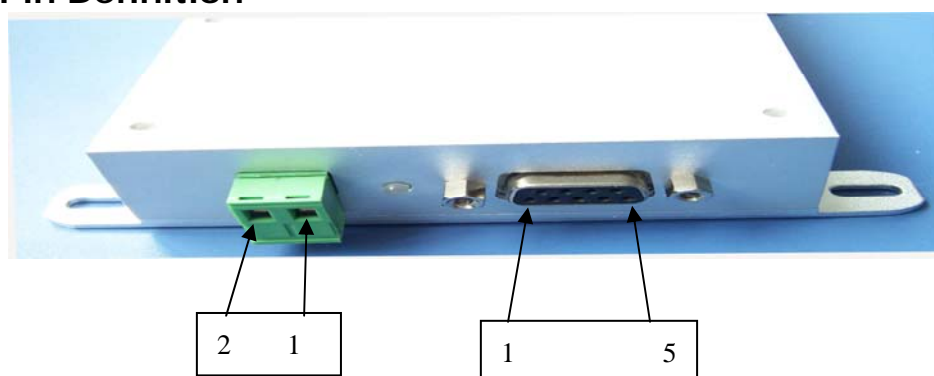
D、Power supply

- DC: 12V ($\pm 10\%$)
- waiting current: ≤ 160 mA
- transmitting current: ≤ 6 A (transmit power 25W)

E、Dimension:

128*108*28mm

III. Pin Definition



Connector	Pin No.	Pin name	Description	Remarks
Power connection	1	VCC	DC:12V ($\pm 10\%$)	Please use power D.C. 12V, more than 8A
	2	GND	Ground of power supply	
Signal connection	1	NC		
	2	RXD (A)	Rxd of RS-232 Rxd of TTL RS-485 A	RS-232, RS-485, TTL, only one valid
	3	TXD (B)	TxD of RS-232 TxD of TTL RS-485 B	RS-232, RS-485, TTL, only one valid
	4	NC		
	5	GND	Signal ground	
	6	PTT	Audio transmitting enable	Low level is for transmitting
	7	MIC	Audio signal input	Microphone input, modulation sensitivity 10mV
	8	SP	Audio signal output	Audio amplifier output 8ohm 0.5W

	9	SQ	Receiving signal checking	Receiving carrier signal, high level
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IV: Application of KYL-668H

Marine filed, public traffic, interphone system of taxi, industrial automatic control, electric power schedule, water conservancy monitor, signal collection and transmission of railway system, oil extraction and transportation control, measure of oil or water wells, hydrological monitor, weather information transmission, environment monitor, container management, goods management in supermarket, forest protection, intelligent building, wireless beaconing, geological reconnoiter, mobile location, military training, public security, medical ward, remote control, detecting, and others automatic control fields.

Notes:

1. About the power supply.

This radio's power output is high to 25W. 12V power D.C., at least 8A is recommended to use. Please choose power D.C. with good fluctuation coefficient and anti-interference ability. If you use switch power supply, please keep the antenna far away from it to avoid antenna's inference.

2. About the antenna.

Please choose antenna compatible with your radio's frequency bank. For long distance communication, directional and high gain antenna would help to reach better effects. And also, please try to mount antenna at higher level.

Antenna's and its cable's impedance should be accordance with radio's (50Ω). If not, whole unit's performance will be affected and it may damage the radio, too.

3. About antenna cable

Choose cable with 50Ω impedance and low decay material. Make sure it can be connected with radio and antenna successfully. Please also consider waterproof and lightning arrester.

4. Heat emission

If the radio needs to transmit for long time, please pay attention to transfer heat in time.

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