

## KYL-668H Data Radio Modem

### User Manual



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Before using the product please read the use manual carefully.  
Any question in technical, you can contact us.

## I: Application of KYL-668H

Applicable Field: Shipping, 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 controlling and remote detecting, and others automatic control fields.

KYL-668H Data Transmission Radio Station is a high performance professional data transmission radio station combined DSP technology and software wireless technology.

## II: Product Characteristic:

- O Modulate and demodulate algorithm is realized by software using advanced and reliable DSP technology for high speed digital signal.
- O High speed digital signal transmission is realized by adopting advance communication algorithm such as wave-form transaction and bandwidth compress etc.
- O To get best receive performance, quickly self-adapt equilibrium technology is adopted to eliminate the ware-form distortion caused by multi-path, (relay) group delay during the transmission.
- O Combination of powerful feedforward put right code GF(256)Reed-Solomon and complect algorithm guarantees reliable communication in the bad environment.
- O With CRC-ARQ function and 16bit circular verification code, it will require automatically re-sending the data when the error code occurs during data verification.
- O Watchdog is used to prevent from shutting down caused by the disturbance in the industrial environment.
- O Self-adapt transmission speed; adjust automatically among 19200/14400/9600bps according to the quality of signal channel.
- O double phase-lock loop, double VCO structure, high stability.

- O Standard TTL, RS232 (or 485) interface; directly connect to Single Chip or Personal Computers.
- O Set transmit frequency and change channel and work mode by computer.
- O Using divided packed transmission, it can be used to construct a wireless grouping data communication net, maximal 254 users in the net.
- O Support AT instruction, user can set running parameters and status by software.
- O All products adopt surface paste technology, which guarantees the stability and reliability of the products.
- O Flexible net building protocol: support several net building mode such as full transparency, poll, CSMA(carrier wave ?? multi-address) etc.

#### A、 General Index

- frequency: 150/230/450 MHz
- frequency tolerance:  $\pm 2.5\text{ppm}$
- frequency tolerance: 25KHz
- antenna impedance:  $50\Omega$
- environment temperature:  $-20\text{ }^{\circ}\text{C}\sim+55\text{ }^{\circ}\text{C}$
- modulate mode: PSK/QPSK/TCM-16QAM
- data transmission speed: 1200/2400bps

#### B、 Receive Index

- sensitivity:  $\leq 0.25\text{uV}$
- signal Noise Ratio(SNR):  $\leq -45\text{dB}$

- Adjacent Channel Selectivity:  $\geq 65\text{dB}$
- Inter modulation interference:  $\geq 60\text{dB}$
- Spurious response immunity:  $\geq 65\text{dB}$

#### C、Transmit Index

- Transmit Power: 5-25W
- modulate distortion:  $\leq 5\%$
- residual frequency modulation:  $\leq -40\text{dB}$
- frequency deviation:  $\leq 5\text{KHz}$
- ortho-channel power ratio:  $\leq -65\text{dB}$
- stray power:  $\leq 5\mu\text{W}$
- RF distance: 20km(25W RF power in the open air)

#### D、Power supply

- DC: 12V
- waiting current:  $\leq 160\text{mA}$
- transmit current:  $\leq 6\text{A}$  (transmit power 25W)

#### E、Dimension:

128\*108\*28mm