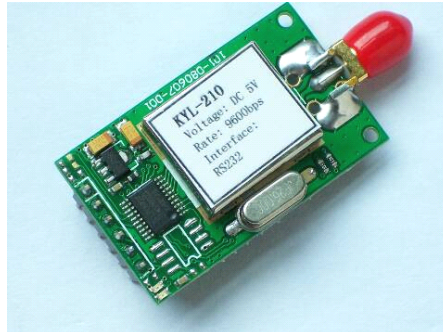# KYL-210 Wireless Data Module

KYL-210 is a kind of micro power wireless transceiver data module. With small size, low power consumption as well as good stability and reliability, it is widely used in remote control, industry automation, wireless telemetry and so on. This module can be connected with micro-controller, PC, RS485 equipments and other devices with UART port directly.

I. Technical specification

| PERFORMANCE	
Power Output:	50mW
RF Line-of-sight Range:	400m@1200bps; 200m@9600bps
RF Effective Rate:	1200/2400/4800/9600/19200/100kbps
Space Channel:	1MHz(Default), (12.5/25KHz/other customization)
Bandwidth:	<25KHz
Receiver Sensitivity:	-118dBm@1200bps (1% BER)
NETWORKING	
Networking Topology:	Point-to-point, point-to-multipoint
COMPATIBILITY	
KYL-220	
POWER	
Supply Voltage:	3.1~5.5V DC
Transmit Current:	<40mA
Receive Current:	<20mA
Sleep current:	<20uA

GENERAL	
Communication Mode:	Half-duplex
Frequency Band:	400MHz-470MHz
Channel:	8(default),16/32/64(optional)
Interface:	TTL, RS232, RS485
PHYSICAL PROPERTIES	
Size:	40mm×24mm×6mm (excluding antenna base and data pin)
Weight:	20g
Antenna Base:	50Ω， SMA
Operating Temperature:	commercial:-30℃～+60℃(TCXO)
Frequency Stability:	±2.5ppm

II. Application Field

* AMR (Automatic Meter Reading)
* Wireless alarm and security systems
* Building automation, wireless monitoring , Access Control System;
* Wireless data transmission, automatic data collection system;
* Wireless POS, PDA wireless smart terminal;
* Wireless PTZ remote control, LED display;
* Wireless remote control, wireless process control;
* Industry automation, wireless telemetry, SCADA and so on.
   ......

III. How to Use It
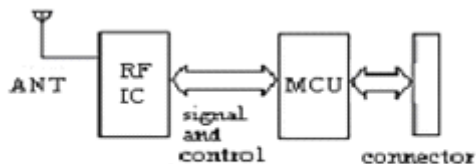
KYL-210   Principle map

1. Default 5V Power supply
2. PIN Definition (6pin)

Pin No.	Pin name	Description	Level	Connection with terminal	Remands
1	GND	Grounding of power supply		Ground	
2	Vcc	Power supply DC	+3.3~5.5V		
3	Rx232 TXD	Data transmitting,	RS 232	RxD	1.Red LED flash when transmitting; 2.One type interface valid at one time
	TTL TXD	Data transmitting	TTL		
	RS485 A	RS485 A	-		
4	Rx232 RXD	Data receiving	RS 232	TxD	1.Green LED flash when receiving; 2.One type interface valid at one time
	TTL RXD	Data receiving	TTL		
	RS485 B	RS485 B			
5	DGND	Digital grounding			NC
6	NC	Test in factory			NC

NOTE: Generally the module is in receiving status.

3. The connection schematic between computer and the RF module
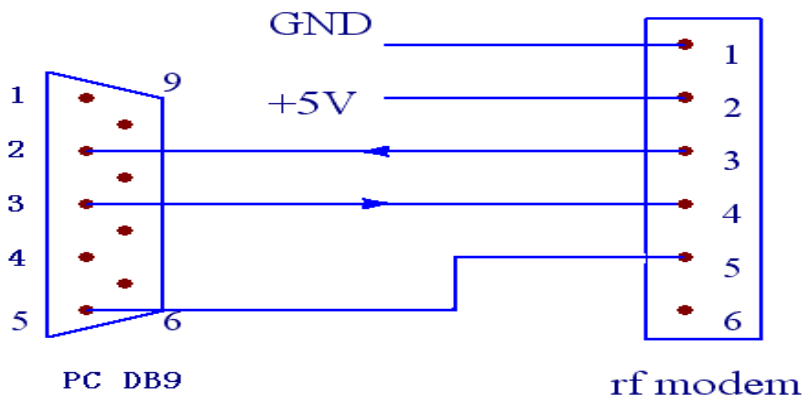
4. Installation dimension:
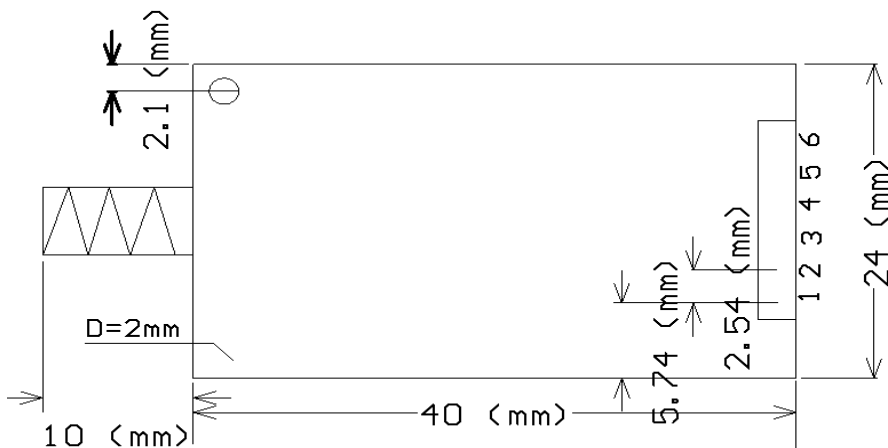
5. The Function-indicator light

a. The LED indicator turns red for 0.5S when power on.

b. The LED indicator turns green continually while receiving data from air.

c. The LED indicator keeps dark when the module is in sleep mode.

6. Parameter setting by our software

You can use our software KYLCOM.exe to read or set the parameter on computer. When you connect RF module to PC by the testing cable, please remember to connect the DB9 as well as USB port to computer.

Corresponding frequency points at 433MHz of 1~12 channels

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	425.250MHZ	2	426.250MHZ	3	427.250MHZ	4	431.250MHZ
5	432.250MHZ	6	434.250MHZ	7	435.250MHZ	8	436.250MHZ
9	437.250MHZ	10	438.250MHZ	11	439.250MHZ	12	440.250MHZ

7. About antenna

We usually allocate KYL-210 RF module with the following antenna. If you have any special needs about the antenna, please specify. You are welcomed to visit our web for more choice about the antenna: http://www.rf-data.com/product2.asp?BigClassName=Antennas. Moreover, we also provide OEM&ODM service.

Shenzhen KYL Communication Equipment Co., Ltd
Welcome to contact Sunny Zhou for more details
Email: sales02@rf-data.com
Fax: 86-755-83408785
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