Serial Wireless Radio – 9800 Feet

Part no.: YSC30L

- RS232 Interface

- Standard Baud rates from 600 -19200bps

- Port powered from USB port

- Philips 8-bit microcontroller

- Communication range up to 9800 feet

- Easy setup and use

- Works independent from operating system

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PRODUCTS

Large selection of Serial RS232, RS485 and RS422 converters, USB to Serial adapters, Isolators, Ethernet to Serial converters, Serial Repeaters, Wireless Serial modules, Serial Bluetooth adapters and Serial Port Cards.

TECHNICAL SUPPORT

To access technical support, please visit www.NordField.com where you will find:

- Latest drivers and updates

- Technical tips

- Documentation

- Configuration support

- and much more…

Feel free to contact our technical support team at

mail@usconverters.com

These wireless serial RS232 radios are almost identical to our 1600 feet wireless serial radios except that these radios have a communication range of up to 9800 feet.

Under perfect conditions, which means line-of-sight without any interference or noise, these radios has a range of up to 9800 feet, however under normal conditions such as in industrial environments, office spaces or most indoor uses with walls, machinery and other obstructions, the communication range should be expected to be shorter depending on the number obstructions and interference/noise between the two wireless serial RS232 radios. With that said these radios has a very strong and reliable signal which work in most environments. It is a good, simple and reliable low-cost solution without any advanced functions so it is very simple and easy to setup and use.

These wireless RS232 serial radios works asÂ transceivers, meaning each radio can transmit and receive, however not at the same time. They can be setup to communicate in point-to-multipoint or point-to-point networks. Each radio has 8 channels which means you can have up to 8 pairs of radios at the same location communicating at the same time without they interfere with each other. See our setup examples for how the radios can be configured in a network or point-to-point.

Power to the these radios is provided through the included USB cable. In case you don't have a USB port available we also offer a 110VAC/5VDC adapter which can be used for powering the radios if you have a 110VAC outlet available instead. With each serial wireless radio is a USB to DC adapter cable included, which will allow you to connect the 110VAC/5VDC power adapter to the USB connector.

The parameters of the radios must be configured over the serial RS232 interface which is a standard DB9 female connector. If your computer does not have a serial COM port, we highly recommend using a good quality USB to RS232 serial converter such as this USB to serial adapter which is fully compatible with these radios.

The simplicity and reliability of these serial wireless radios makes them an ideal solution for many applications and environments such as factory automation, building control, CNC machinery and many other applications.

These radios are sold individually. To setup a communication link you will need two radios. The radios broadcasts in the unlicensed 433Mhz band so no license is required.

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Specifications

SPECIFICATIONS	
Model number	YSC30L
Recommended OS	Windows 8, Windows 7, Windows Vista / XP
Processor	Philips 8-bit microcontroller LPC922F
RF Transceiver	Texas Instruments CC1101
Serial interface	RS232, DB9 female
Baud rates	600, 1200, 2400, 4800, 9600, 19200
Buffer	128bytes
RS232 Signals	TX, RX, CTS, RTS, GND
Parity	None, Even, Odd
Stop bits	1
Data bits	8 (6 and 7 bits not supported)
DCE/DTE control	None
Power on pin 9	Yes, 5VDC
Switch time for TX/RX	10ms
Power consumption	Sleep mode: 20uA , 35mA active RX, 210mA TX
Antenna	50 ohm SMA Female, external di-pole
Frequency	429.00 ~ 433.30MHz
RF power	500mW/ 27dBm
Receiving sensitivity	118dBm (@9600bps)
Receiving current	less than 25mA
Transmitting current	less than 400mA
Number of channels	8
Power	+5 to 5.5VDC powered by: Option 1: USB cable (included) Option 2: AC/DC adapter (not included)
Indication LEDs	TX, RX
Typ. range 1	2km/6500 feet (BER=10-3@9600bps)
Typ. range 2	3km/9800 feet (BER=10-3@1200bps)
Operating temp.	-35C to 75C (31 to 167 F)
Dimensions	80 x 45 x 19mm (without antenna port)
Certifications	CE, FCC
Warranty	2-year Limited Warranty
ECCN	4A994.a
Schedule B	8471.80.1000
HTS	8517.18.0050

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Connection table

Terminal	DB9 Female pin	Description	Remarks
1	Not conn.	Power supply ground	GND via USB
2	Not conn.	Power supply	5VDC via USB
3	Not conn.	n/a	
4	Not conn.	n/a	
5	Pin 5	Signal ground	
6	Pin 2	RS232 Transmit (TX)	
7	Pin 3	RS232 Receive (RX)	
8	Not conn.	Sleep control (input)	TTL
9	Not conn.	Reset (input)	TTL

Modules must be supplied with a 5VDC through the included USB cable. Alternatively mudules can be powered through the included USB / DC power adapter cable which allows you to use a standard 110VAC/5VDC wall power adapter with a 5.5 x 2.1 x 11.5 mm output jack.

Remarks regarding sleep mode: Sleep mode is enabled if pin 8 is set low and disabled when pin 8 is set high (Vh<3.5V) or hangs/open.

Connection example:

Package content:

1pcs serial RF Radio with USB power cable

1pcs antenna

1pcs USB / DC adapter cable

Please download the full driver and documentation package at:

www.Nordfield.com