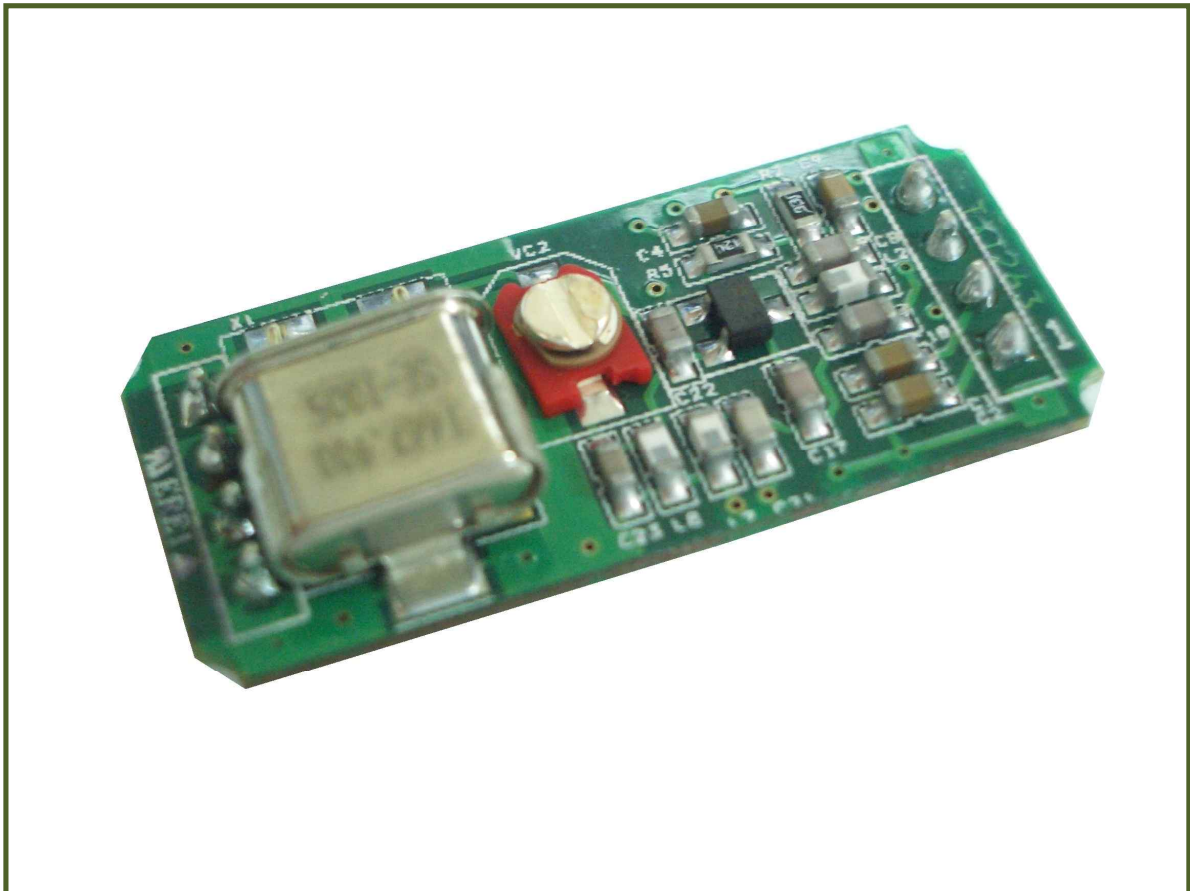


UHF 447MHz FSK Data Transmitter module

NR-FA447T Ver 7.0

Related Products : NR-FA447R (UHF 447MHz FSK Data Receiver Module)
NR-EATXRX (UHF FSK Data Transmitter / Receiver Unit)



1. UHF 447MHz FSK Data Transmitter Module.

- * UHF 447 MHz FSK Data Transmitter Module is a wireless transmitter that enables to remote control modems and various electronic machines, as well as Transmit control signals or regular data such as computer data(transmission/reception).
- * In general, it is wireless communication method among all that is mostly used to communicate or remote control. For instance, remote starting system of automobiles or computer transmitter/receiver devices are the cases of wireless data receiver devices.
- * With this wireless Transmitter module used with transmitter module, you can remote control electronic products (on/off) in addition to transmitting/receiving data from computer or collecting data from remote sensor. Also, This makes it a lot easier to use/control various daily electronic devices such as automatic door, electric heater, robot products, etc.

2. Features.

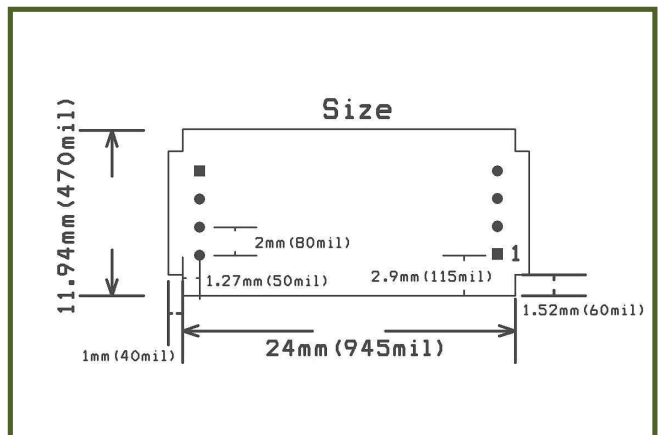
- . No wiring work required, unlike wired communication method.
- . Cost/time for wiring work not required.
- . Easily applicable to your products, it being in the form of module.

3. Applications.

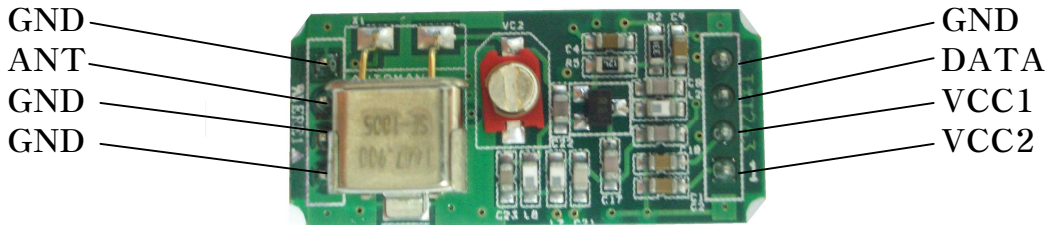
- . home electric/electronic devices. (TV, Lamp, alarm, security, automatic door etc)
- . office electric/electronic devices. (curtain, lamp, locker, electron key, automatic door etc.)
- . factory/construction site electric/electronic devices. ((Machinery power on/off, sensor, etc.)

4. UHF 447MHz FSK Data Transmitter Module Specification.

Item	Specification
Input Power	DC 5V
current	Under 23mA
frequency	447.9000MHz
demodulation	FSK(FM)
Air Data speed	1200bps
Interface Data Speed	9600bps
RF Output	Under 10mW



5. UHF 447MHz FSK Data Transmitter Module Information.

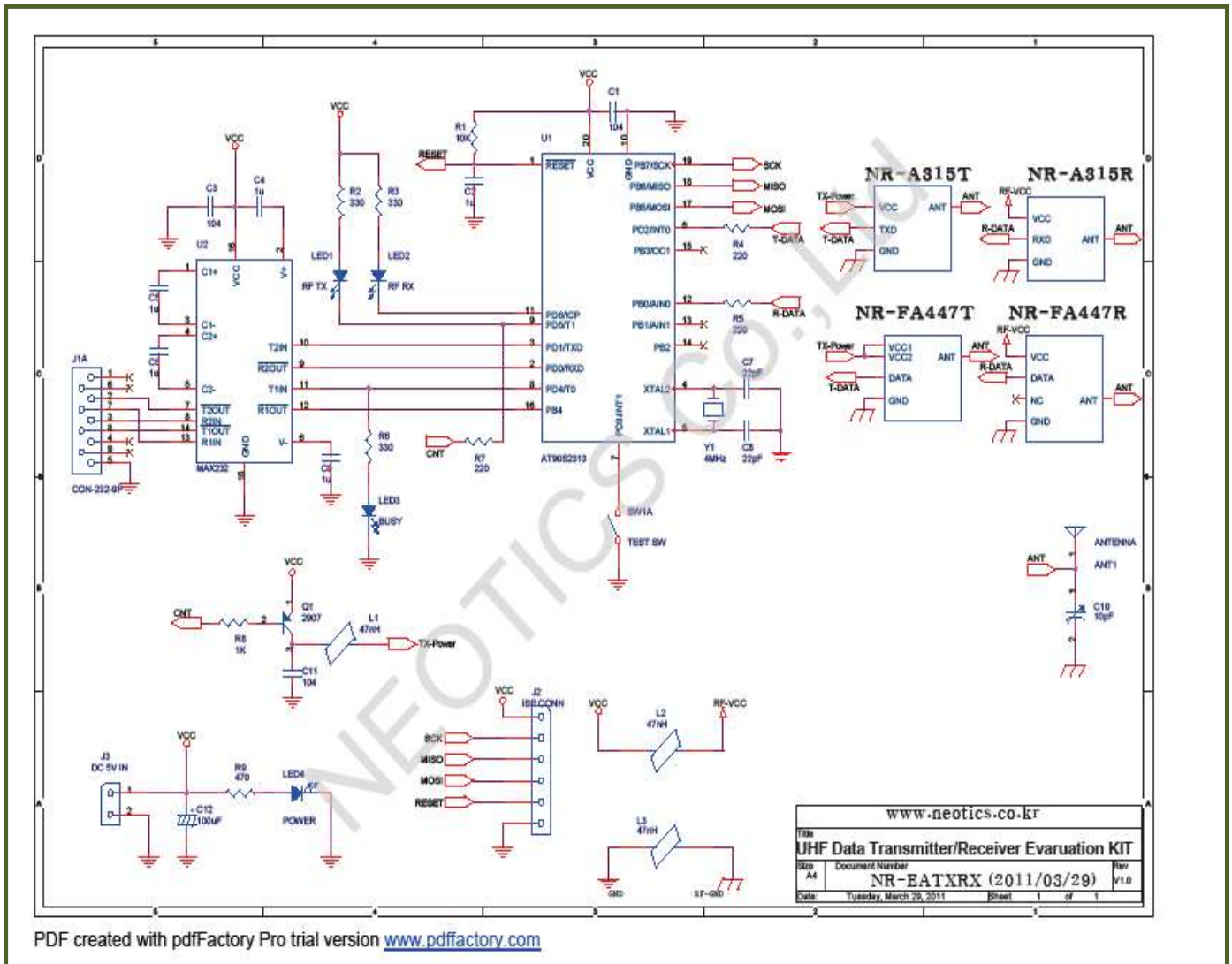


- VCC1 : Input Power DC 5V (+).
- VCC2 : Input Power DC 5V (+).
- DATA : Input Transmit Data (TTL Level).
- ANT : Connect Antenna.
- GND : Input Power DC 5V (-)..

**** Reference : RF-Module Control Program Technique . ****

1. Manchester Coding of input data----The signal in the form of serial(RS-232C) is not directly put into module. (same as infrared rays remote control).
2. When it comes to successive signals of "H" or "L", wired transmission using UART-Port can recognize accurate number of "H"s and "L"s, whereas in wireless transmission it is not reliable since the length of "H" and "L" changes, thus is treated as 'error', if using UART-Port.
3. Transmission of data with 'preamble' prefixed.
 - . Reason : Front part of data may not be transmitted if the data are transmitted from the start. Prefixed preamble(0xFF) notifies the start of data transmitting.
 - ex) 0xFF+0xFF+0xFF+0xFF+0xFF+0xFF+0xFF+0xFF+ 0x7F+ User Data + End Code.
 - <----- Preamble Code -----> <Code> <- Data -> <- Code ->
 - <----- Manchester Coding ----->
4. Manchester Coding Convert Sample : "H"--> "HL", "L"--> "LH" or "HLL".
 - ex) "H" -- (H)833uS + (L)833uS
 - "L" -- (L)833uS +(H)833uS or (H)833uS + (L)833uS + (L)833uS

5. UHF 447MHz FSK Data Receiver Module Test Circuit.



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***** Caution*****

1. Check the features first to connect with other equipment.
2. This circuit is strictly tested.
3. The developer, manufacturer or dealer is not responsible for any malfunctioning/damage caused by connection with other equipment.
4. Appropriate permit /approval is required for some products utilizing this module, depending on functions and usages.

- For more information and inquiry, please refer to the sites below.

R&D : <http://www.neotics.co.kr>
 Sales : <http://www.logiccamp.co.kr>

E-Mail : neotics@neotics.co.kr
 E-Mail : sales@logiccamp.co.kr