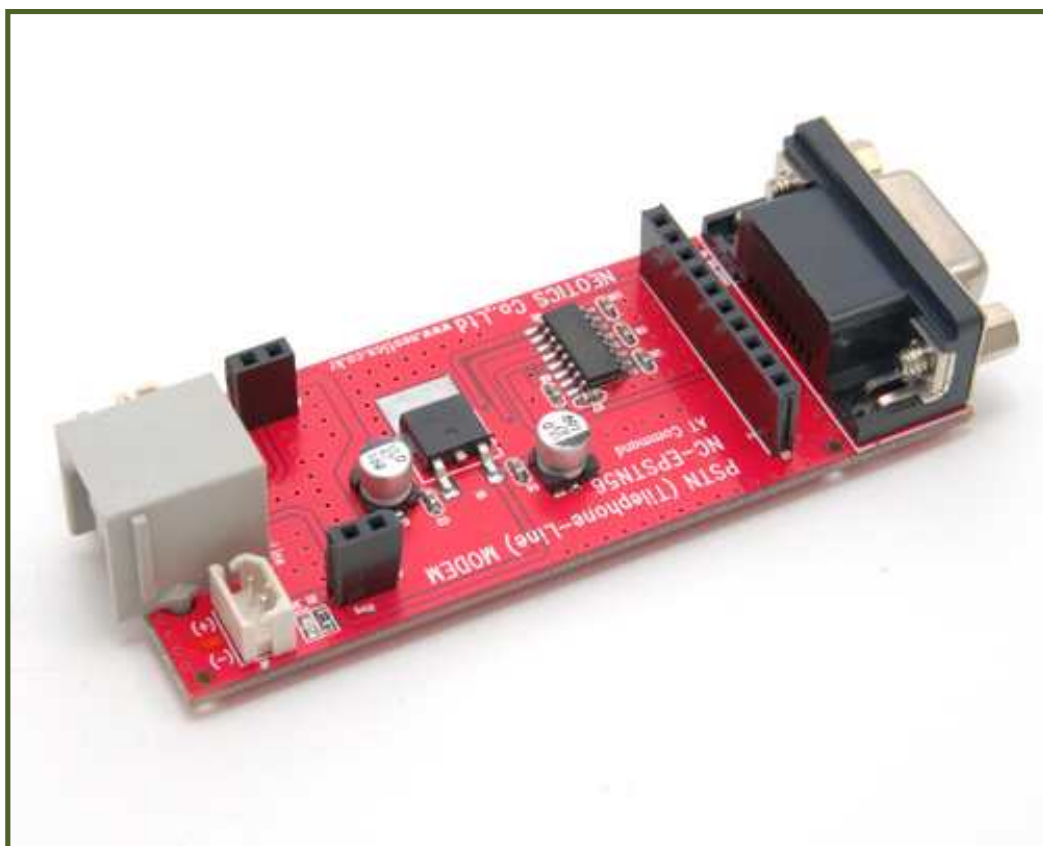


Telephone-Line(PSTN) High-Speed Data Modem Unit

NC-EPSTN56 Ver 7.0

Related Product : NC-PSTN56 (Telephone-Line High-Speed Data Modem Module)



1. Telephone-Line High-Speed Data Modem Unit

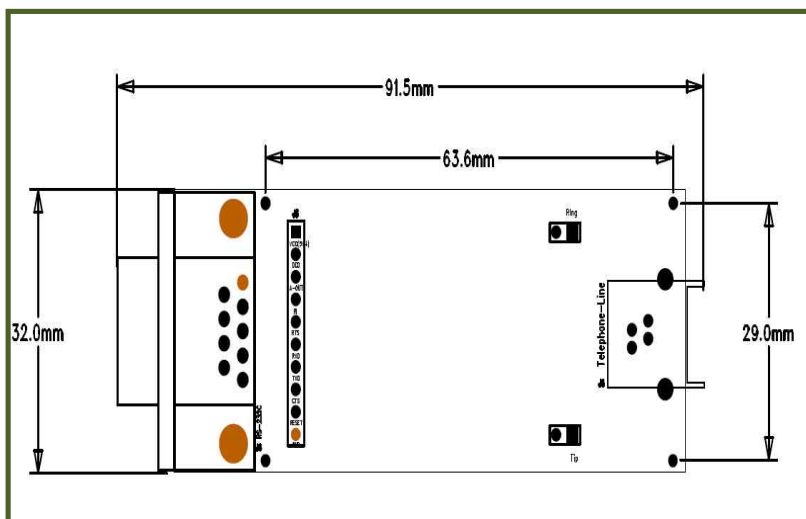
- * NC-EPSTN56 is the Evaluation board for the test of performance, basic operation, circuit development of NC-PSTN56.
- * This unit is designed to show accurate use of NC-PSTN56, and to inform the result without additional PCB when testing.
- * You can test basic performance of NC-PSTN56 with this unit, prior to actual circuit development. This unit is aimed for smooth communication with the user interface to be developed.

2. Feature & Applications.

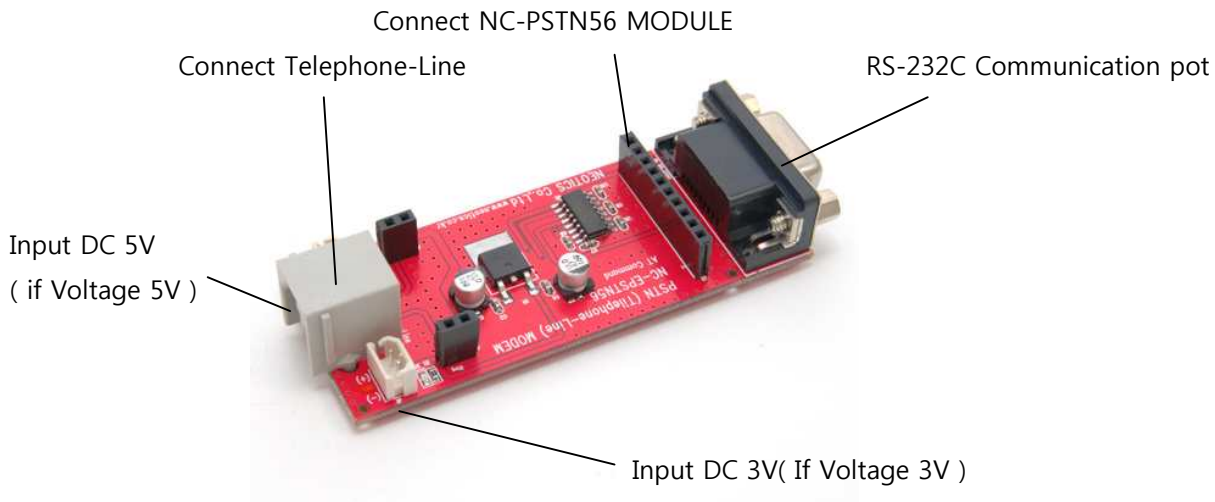
- . With the chip for RC-232C built-in, you can practice immediate communication test with computer or other user interface board.
- . Built-in connector for telephone line facilitates the connection.
- . Communication test from 300bps-33,600bps is possible without extra setting/adjusting.
- . In the form of One-Board, it is easy to encase/install.
- . Data communication/remote controlling through telephone line.
- . Set Top Box. Remote Monitoring. PVR'S etc.
- . Point of Sale Terminal, Security System etc.
- . Remote controlling of electric/electronic devices in the office or any remote places.
- . Can be developed into simple remote control devices/electronic control devices for data processing.

3. Telephone-Line High-Speed Data Modem Unit Specification

Item	Specification
Operating Voltage	DC 3.3 or DC 5V
Operating Current	20mA
PC / MCU Interface	9600-1-8-N
Communication Speed	300~33,600bps
Connection Line	PSTN



4. Telephone-Line High-Speed Data Modem Unit Description



* Test Method (NC-PSTN56 with PC)

1. Connect serial port NC-EPSTN56 to RS-232 port of PC.
2. Start communication program for PC (hyper terminal or other normal serial program).
3. Make a phone call by AT Command after setting communication speed and monitor.
4. When the telephone is connected, give a communication test.
(Press any key on the keyboard, or send any sample data file, picture file etc.)

* Test Method (NC-PSTN56 with MCU)

1. Connect TXD, RXD, GND of NC-PSTN56 to UART Port of MCU.
2. Make a phone call by AT Command, after setting communication speed.
3. When the telephone is connected, give a communication test.
(send/receive any sample data file from MCU.)

* We suggest you to make up the program after checking basic instruction code and return value.

* Communication tests with PC and MCU are done same way.

5. Basic AT Commands.

- . AT : Checking the state of modem command code
- . ATDT 0212345678 : Hook functioning, and making a phone call to 02-1234-5678
- . ATH0 : Hook On (hanging up the phone)
- . ATH1 : Hook Off (Picking up the phone)
- . ATSO=3 : answering after 3 Rings.
- . A/ : auto-practice of previous command
- . ATDT 9, number : When you use "9" or "0" by operator.
- . ATX0 : 1.When you use only an extension.
2.When you get "NO DIALTONE" Message.
- . "+++"
: Changing to Command mode from communication mode.
Please Wait a Moment After input the "+++"
- . Call ID (CID) : Input AT+GCI= Country Code
: Input AT+VCID=Call ID type
: User Command

** please See the "STANDARD EXT-AT Command-2" PDF Page 2

** To percentage case about under modem 2 open circuit communication give the
Communication test surely

** When 2 modems the communication condition becomes to, it follows in quality condition
of the phone line and the modem about under setting connects a Speed with automatic.

** Communication to the case which it will examine automatic telephone it receives the piece
which it receives with about under setting give

******* 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.**