

Power-Line Evaluation Unit.

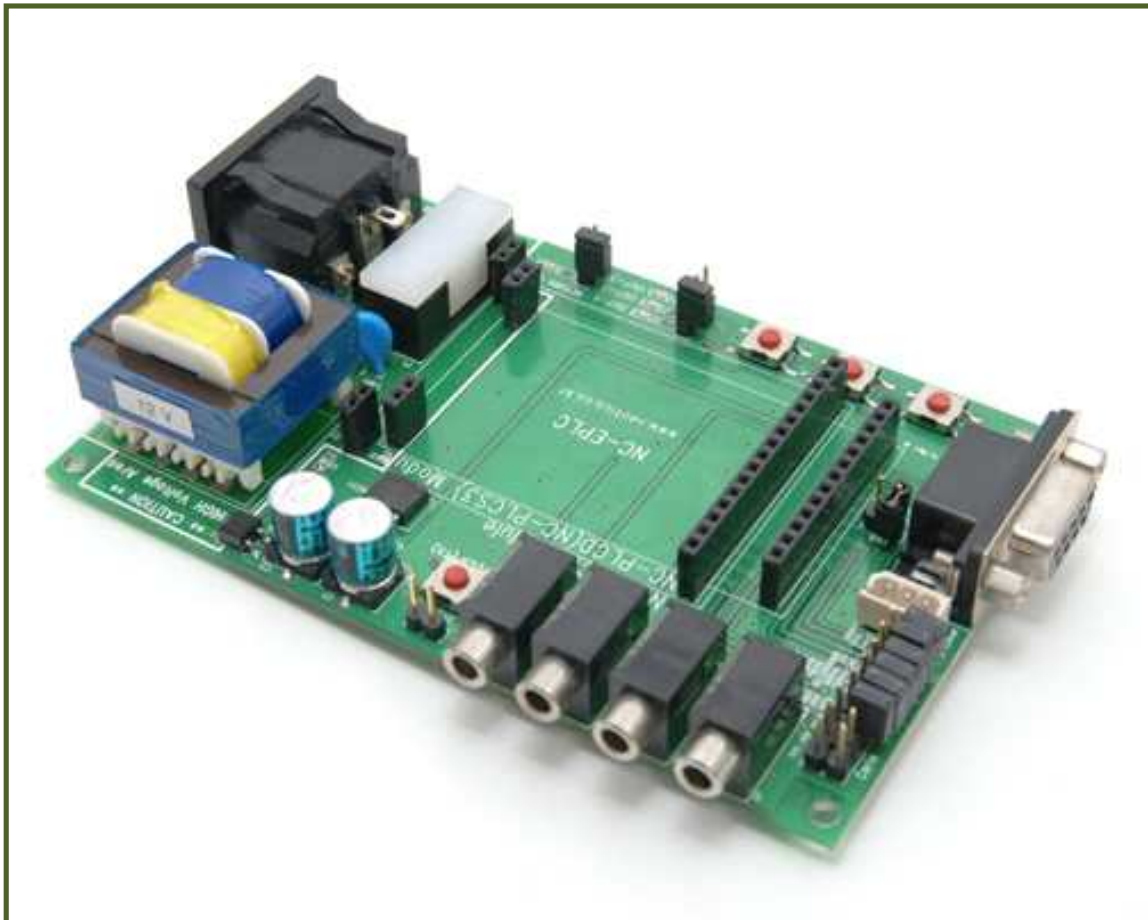
(It can communicate on the AC 110V or AC 220V Line)

NC-EPLC Ver 7.0

Related Products : NC-PLCD(Power-Line Data Module)

NC-PLCA(Power-Line Audio Module)

NC-PLCS3(3-Channel Power-Line Switch Module)



1. Power-Line Evaluation Unit.

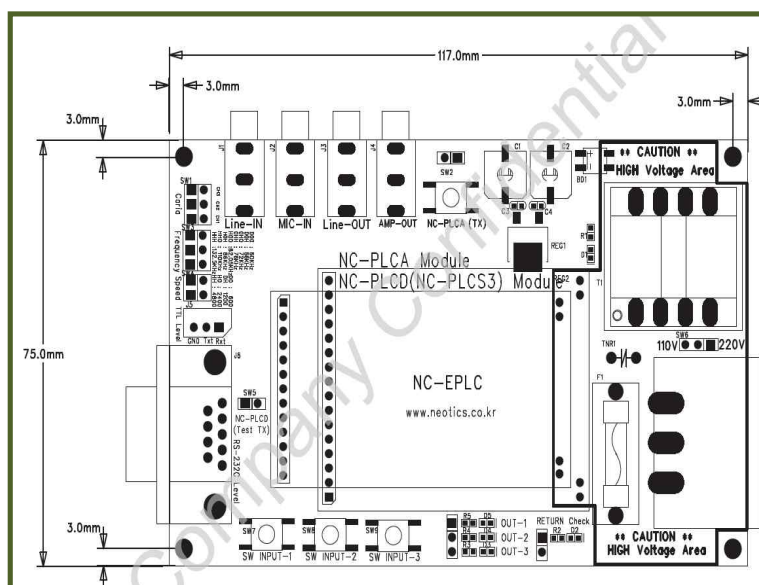
- * This is a Test Board for basic operation and performance evaluation of NC-PLCD, NC-PLCA, NC-PLCS3 Module. (It can communicate on the AC 110V or AC 220V Line)
- * You can refer to N-PLCD, NC-PLCA and NC-PLCA for its exact use and connection method for the circuit development.
- * You can learn the basic circuit composition and use of the power-line data/audio communication, prior to actual circuit development. This circuit is aimed for a easy operation with the user interface circuit to be developed.

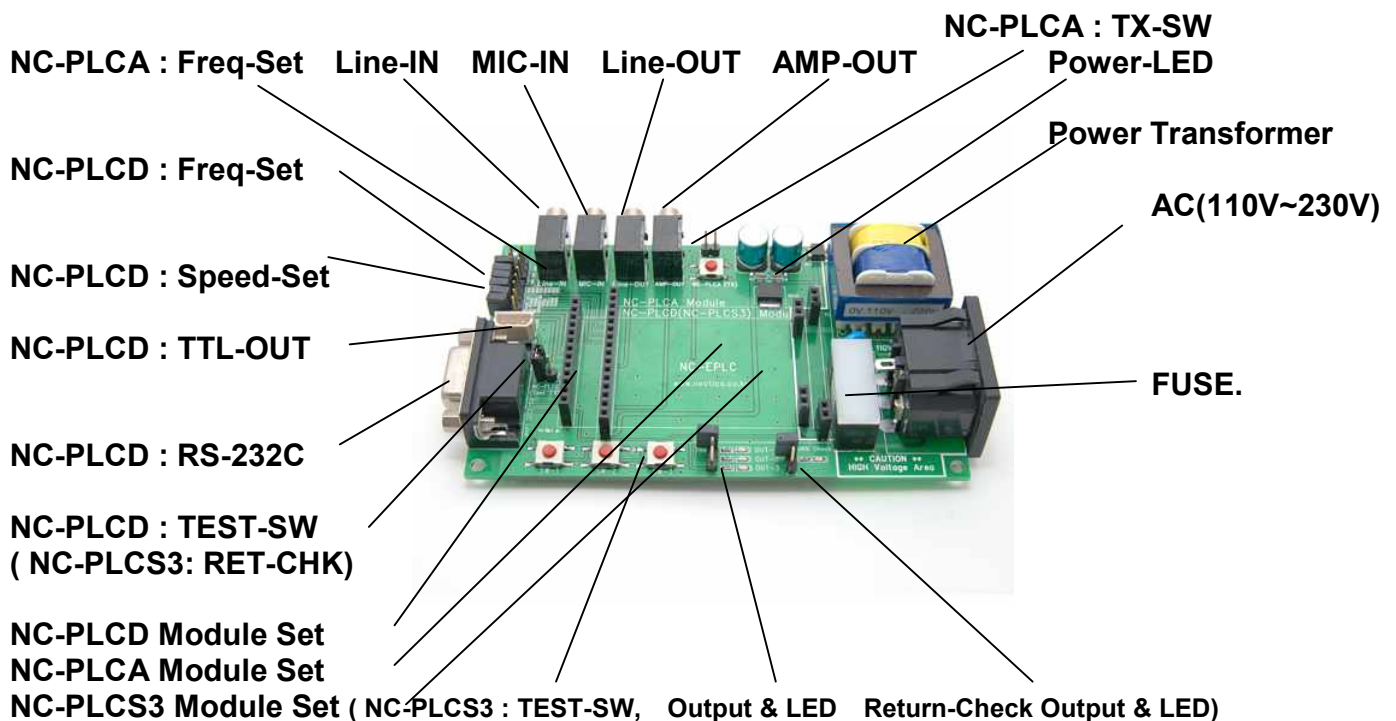
2. Features & Applications.

- . It is Possible to test with NC-PLCD , NC-PLCA, NC-PLCS3 Module.
- . Built-in RS-232C port, so it can communication test with the computer or other user interface.
- . Built-in AC (110V/220V) Connector, it can facilitates the connection.
- . Communication frequencies and speed setting by the jumper in the board itself.
- . In the form of One-Board, easy to install and encase.
- . Controlling of air conditioner, TV, refrigerator, curtain and other electric devices.
- . Communication line for security equipments.
- . Remote controlling of sensor, alarm, lighting etc.
- . Data communication in a poor communication environment like factory or construction site.
- . Suitable where wiring work(cable) is difficult / impossible to do.

3. Power-Line Evaluation Unit Specification and Size

Item	Specification
Operating Voltage	AC(100V or 230V)
Operating Current	10mA
Interface Module	NC-PLCD NC-PLCA NC-PLCS3
Cummunication setting	9600-8-N-1 (when using NC-PLCD)



4. Power-Line Evaluation Unit Information.

- * NC-PLCA Freq-SET : Set NC-PLCA Communication Channel (Frequency setting)
Insert jumper Cap to either CH-1, CH-2, or CH-3.
CH-1 : 305KHz, CH-2 : 355KHz, CH-3 : 405KHz
(Frequency per channel may vary depending on DC input
power, so please use rated voltage(DC 9V)
- * NC-PLCA Line-IN : Line Level Audio Input.
- * NC-PLCA MIC-IN : Microphone Level Audio Input.
- * NC-PLCA Line-OUT : Line Level Audio Output.
- * NC-PLCA AMP-OUT : Audio Amplifier Output
- * Power-LED : LED for DC power supply.
- * Power Transformer :Transformer for Self- Power supply.
- * AC(100V~230V) : AC(100V~230V) communication line(connection plug)
(Communication available in AC(Alternating Current),
DC(Direct Current), and general wiring connection)
- * FUSE : Protection Fuse for overvoltage of Power line.

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- *NC-PLCD Freq-Set : Set NC-PLCD Data Communication Channel (frequency)
Connect C1, C2, C3 to GND(using the jumper cap).
e.g.) C1, C2, C3
H, H, H : 60KHz H, H, L : 66KHz
H, L, H : 72KHz H, L, L : 76KHz
L, H, H : 82KHz(82.05KHz) L, H, L : 86KHz
L, L, H : 110KHz L, L, L : 132KHz(132.5KHz)
("L" indicates connection to GND/Using the cap)
- * NC-PLCD Speed-Set : Set NC-PLCD data transmit speed.
Connect S1, S2 to GND(using the jumper cap).
e.g.) S1, S2
H, H : 600bps H, L : 1200bps
L, H : 2400bps L, L : 4800bps
("L" indicates connection to GND)
- * NC-PLCD TTL OUT : TTL Level Data Transmit/Receive Terminal.
(use in connection with MCU)
- * NC-PLCD RS-232C : RS-232 Level Data Transmit/Receive Terminal
(use in connection with PC, RS-232 Level)
- * NC-PLCD Module Set : NC-PLCD module put-in.
- * NC-PLCA Module Set : NC-PLCA module put-in.
- * NC-PLCS3 Module Set : NC-PLCS3 module put-in.
- * NC-PLCD TEST-SW : Test Data Transmit when capped.
(automatic transmit about once a second....Test data : "TEST1234")
(Jumper and switch are of the identical function.)
- * NC-PLCA TX-SW : NC-PLCA Audio Transmit/Receive Change Switch.
(Jumper and switch are of the identical function.)
- * NC-PLCS3 Test-SW : NC-PLCS3 Transmit Switches.
- * NC-PLCS3 Output & LED : NC-PLCS3 receive relay outputs and LED for operation status.
- * NC-PLCS3 RET-CHK : NC-PLCS3 Transmit Confirmation setting jumper.
(capped : Return-Check function Enable.)
(Uncapped : Return-Check function Disable.)
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* NC-PLCS3 Return-CHK & LED : NC-PLCS3 Transmit Confirmation Output and LED for operation status.
("H" pulse output when the receiver is working normally).

**** Be cautious of the high voltage****

******* Caution *******

1. Check the features first to connect with other equipment.
2. This unit 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.**