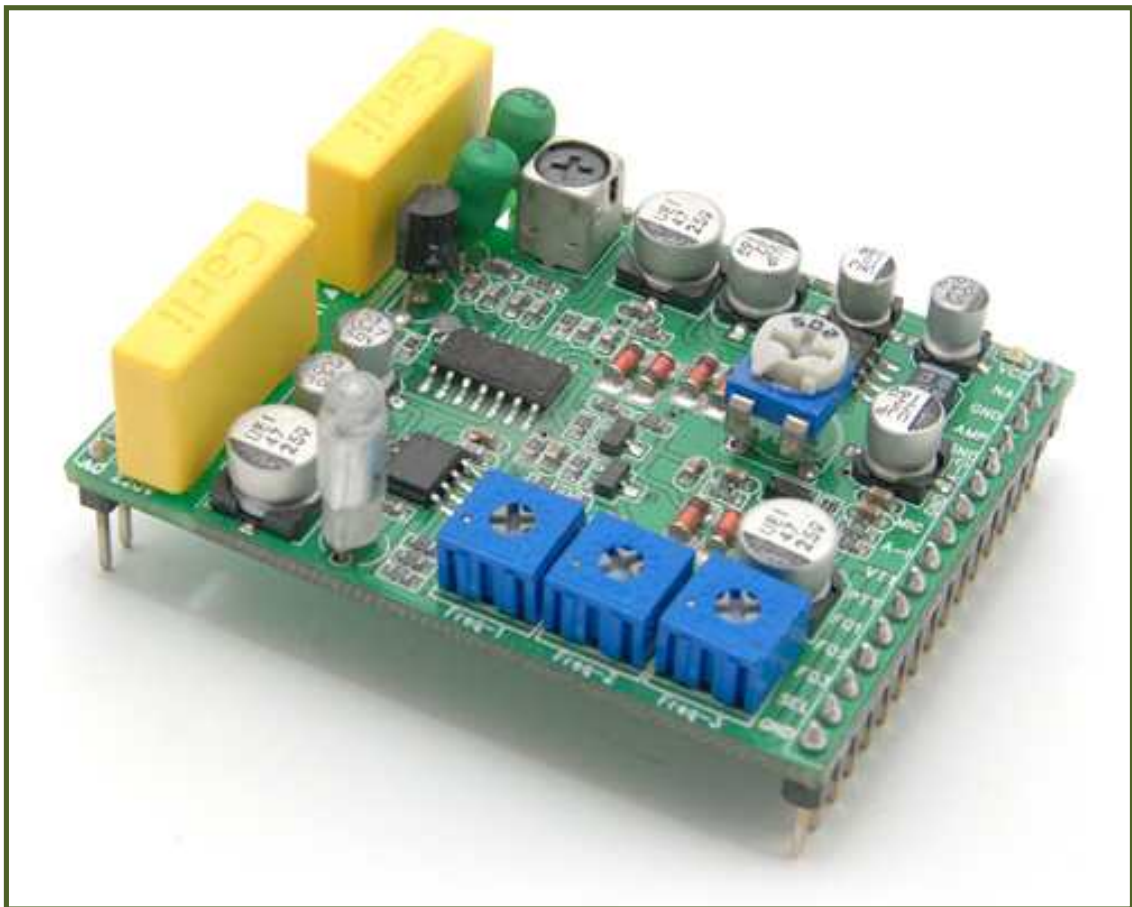# Power-Line Audio Module

(It can communicate on the AC 100~230V Line)

NC-PLCA   Ver 7.0

Related Product : NC-EPLC (Power Line Evaluation Unit)

1. Power-Line Audio (Voice) Module.

* This is a module for audio (voice) receiving/transmitting through Power-line (AC 100V~230V)
    With Plug Socket at home.
* Power line communication can replace wired/wireless communication disabled as above.
  It can serve for smooth data communication for the user.
* At present, power line communication is widely used for home automation.
It is installable without changing existing building structure, and doesn't require
any extra wiring work, so the cost is saved and doesn't disturb your work at home
or in the office/factory, letting you avail yourself of the immediate communication.
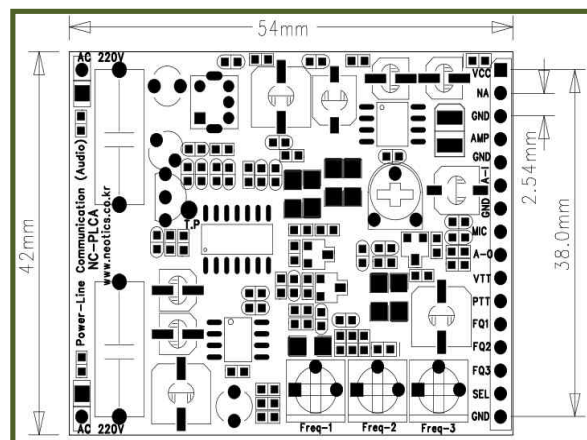
2. Features.

. Additional wiring work not required, unlike wired communication.
. Cost/time for wiring work saved.
. Using different transmit frequencies, you get less cross, separate or multi-communication.
. Installable where there is electric wire and outlet.
. Useful for development/production of automatic control system within the building.
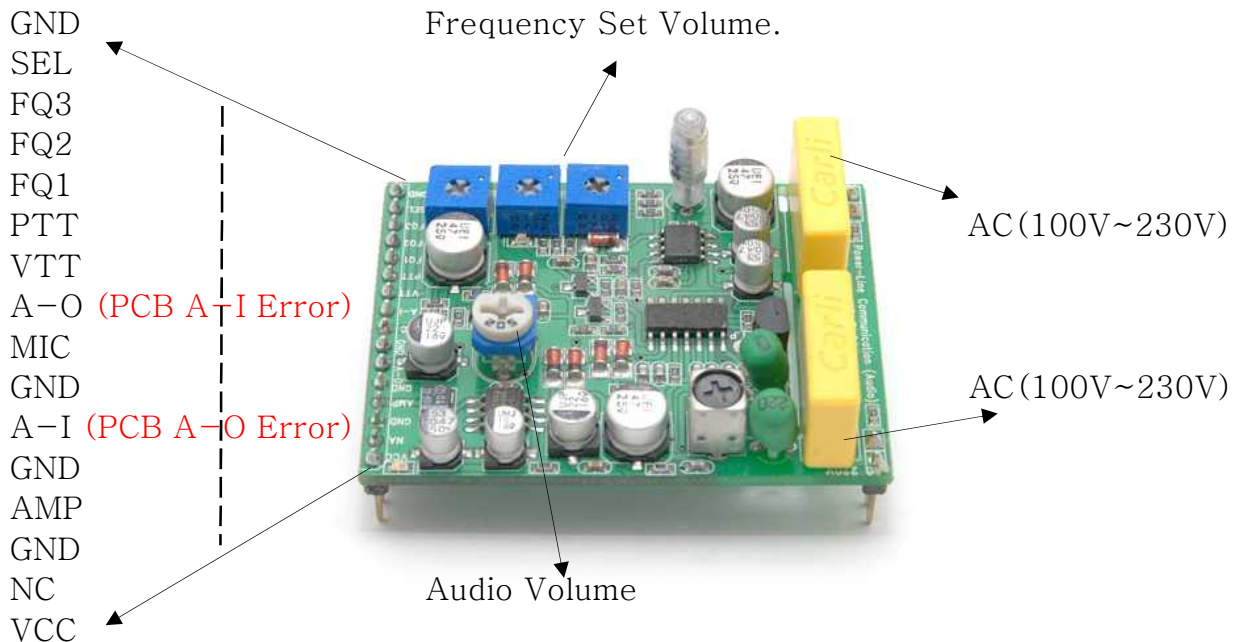
3. Applications.

. Wireless Intercom (Power-Line Intercom) ,
. Broad Information Speaker System for School, Building,
. Wireless Speaker System.

4. Power-Line Audio (Voice) Module Specification & Size

Item	Specification
Operating voltage	DC 9V
Operating Current	receive : about 45mA, transmit : about 75mA
Communication Frequencies	3 channels (305,355,405KHz)
External Device Connection	Input : Line-In, MIC Output : Line-Out, AMP-Out
Communication line (voltage)	AC 100V~230V

4. Power-Line Audio (Voice) Module Pin Description

GND
SEL
FQ3
FQ2
FQ1
PTT
VTT
A-O (PCB A-I Error)
MIC
GND
A-I (PCB A-O Error)
GND
AMP
GND
NC
VCC

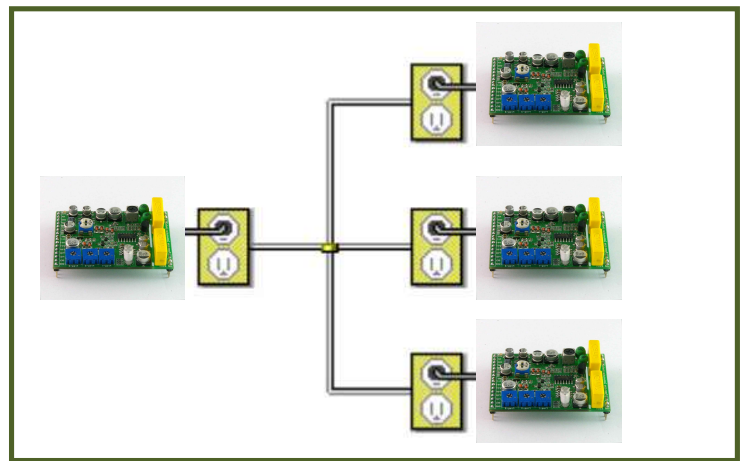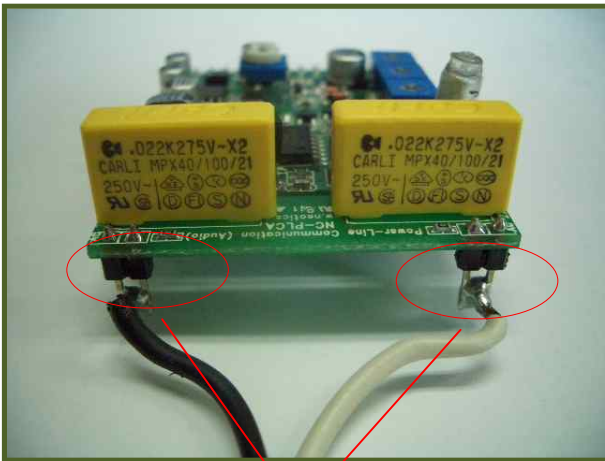Frequency Set Volume.

AC(100V~230V)

AC(100V~230V)

Audio Volume

* GND : Input Power DC 9V (-) Connection Terminal.

* SEL, FQ3, FQ2, FQ1 : Set Audio (voice) Transmit Frequency.   e.g.)   SEL-FQ3, SEL-FQ2, SEL-FQ1

* PTT : Transmission(TX)/Reception(RX)   Changing Switch.

       . PTT – VCC connected   : Transmit audio (voice).

       . PTT disconnected   : Receive audio (voice).

* A-O : Audio Output Terminal when receiving. (Line-Out Level)

* MIC : Audio Input. (Use Microphone Amplifier in PLCA Board).

* GND : Earth (GND) Connection Terminal with external input/output device.

* A-I : Audio Input. (Line-Input Level)

* AMP : Audio Output. (Audio Amplifier Output Level)

* NC : No Connection.

* VCC : Input Power DC-9V (+).

       (It is better analog-type(trans-type) power supply than switching-type power supply.)

* Audio Volume : Audio volume adjust when Use AMP-O Terminal

* AC (100V~230V) : Power-Line(AC 100~230V) Connection Terminal.

* Frequency Set Volume : Frequency Setting per Channel. (Frequency preset by the manufacturer.)

       SEL-FQ3 : 405KHz,   SEL-FQ2 : 355KHz,   SEL-FQ1 : 305KHz

** Don't turn the frequency setting volume by user. (completed set at the time of sale)

** If frequency is set incorrectly, may not be able to communication with others.

** If you need more channels, it is able to communicate with setting non-redundant frequency.

** If it is not DC9V input power, frequency can be changed.

. Users are advised not to tune frequency setting volume (adjustment completed when manufactured)

. Wrong frequency disables the communication.

. In case you need more channels for communication, you can set frequencies other than above.

. Frequency may vary under any input power other than DC9V.

** Be Cautions of the high voltage**

connect one of the 2 AC (AC 110V~230V) lines.

***** 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   E-Mail : neotics@neotics.co.kr
Sales : http://www.logiccamp.co.kr   E-Mail : sales@logiccamp.co.kr