

# **2 Channel Zone Amplifier**

## **- # 15417**



**Operation Manual**

## Introduction

The 2-Channel Zone Amplifier can accept analog and digital audio from 3.5Ø line in, L/R RCA, optical and coaxial inputs and output synchronously to L/R speaker and CAT5e/6/7 Audio Receiver. Suitable for any musical events use, sound addition, sound amplifying and AV extension. With audio sampling rate supports up to 96kHz and I/O data rate supports up to 24-bit, it provides a high standard of quality sound presentation and can amplifier sound up to -80dB. The system also support RS-232 and LAN control.

## Applications

- Public Speech
- Show even audio set up
- Home theater/Entertainment

## Features

- Supports Digital to Analog audio Conversion (DAC) and Analog to Digital audio Conversion(ADC)
- Supports input sampling rate up to 96kHz and output at 48kHz
- Supports 2 Passive speaker with  $4\Omega \sim 8\Omega$  each
- Speaker each output channel supports 45W/4Ω
- Hi-Efficient 2 x 45W class D amplify > 80% efficient
- Synchronous output sound on both digital and analog
- Supports distances up to 300 meters through CAT5e/6/7 cables
- Supports RS-232, IR remote and on-panel controls
- Sound supports up to -80dB with volume up moderation at power ON

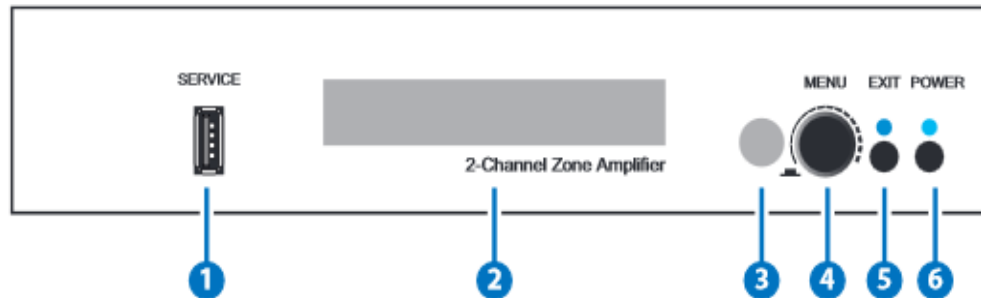
## System

### Requirements

Input audio source equipment such as PC, CD player, MP3 with output speakers and connection cables.

## Operation Controls and Functions

### Front Panel



#### 1. Service:

Connect with USB flash driver for firmware update only.

#### 2. OLED:

Display current input source selection and volume setting.

#### 3. IR Window:

Accept IR signal from the remote control included in the package.

#### 4. MENU:

This button has two usage, one for volume control and the other for menu selection. Turn the wheel to adjust the output sound volume before entering into menu selection or press it to enter into the menu selection then turn the wheel to rotate from the selection and press it again to enter or to confirm the selection.

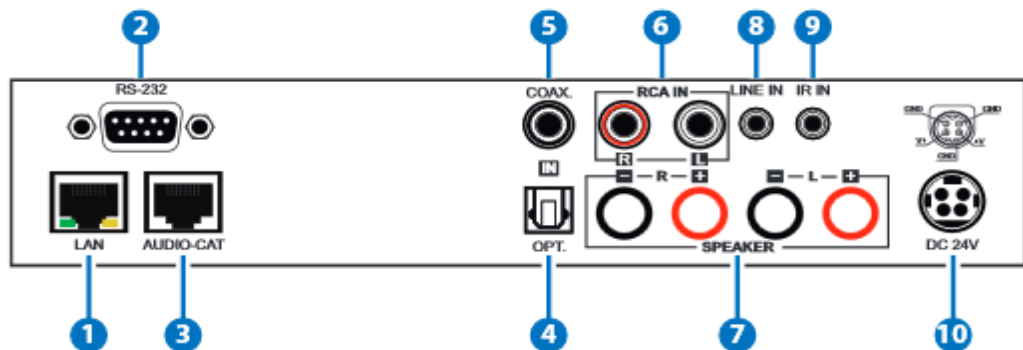
#### 5. EXIT:

Press this button to exit from the menu selection. When outside the menu selection press this button to mute the output sound, the LED will illuminate. Press it again to unmute.

#### 6. POWER:

Press this button to turn on the device and the LED will illuminate in blue, press it again to switch to standby mode and the LED will turn red.

### Rear Panel



### 1. LAN:

Connect from PC/Laptop with RJ-45 cable for Telnet/WebGUI controls.

### 2. RS-232:

Connect from PC/Laptop with D-Sub 9pin cable for RS-232 controls.

### 3. AUDIO-CAT:

Connect from audio Transmitter over CAT5e/6/7 extender for audio transmitting up to 300m. It is suggested to use the audio Transmitter with in the family line to ensure the transmission of 300m with sampling rate of 48kHz. When the audio Transmitter obtain RS-232 function it can also control the Zone Amplifier.

### 4. OPT. IN:

Connect from source equipment such as Set-top-box or PS3 or any other source with optical output for audio signal sending.

### 5. COAX. IN:

Connect from source equipment such as Set-top-box or PS3 or any other source with coaxial output for audio signal sending.

### 6. RCA IN:

Connect from audio source equipment with RCA jack for stereo audio input.

### 7. SPEAKER:

Connect from speakers with wired cable for stereo audio output.

### 8. LINE IN:

Connect from audio device with 3.5ø pome jack for stereo audio signal input.

### 9. IR IN:

Connect the IR Extender for IR signal reception. Ensure that remote being used is within the direct line-of-sight of the equipment to be controlled. This IR accepts the IR signal from the package included remote control only.

### 10. DC 24V:

Plug the 24V DC power supply into the unit and connect the adaptor to an AC outlet.

## Remote Control

### 1. Power:

Press this button to turn on the device or to set it to standby mode.

### 2. Vol +/-:

Press these buttons to adjust the volume.

### 3. MUTE:

Press this button to mute the output audio sound. Press it again to unmute.

### 4. MENU:

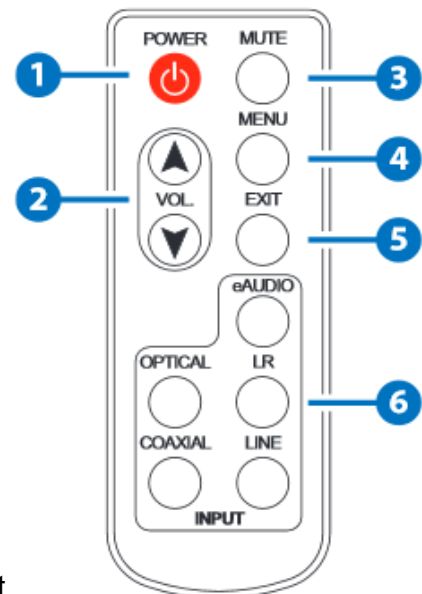
Press this button to enter into the menu selection

### 5. EXIT:

Press this button to exit the selection.

### 6. Audio selection:

Press one of these hot key to select audio input source.



## RS-232 Protocols

HDMI SCALER	
Pin	Assignment
1	NC
2	Tx
3	Rx
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC



REMOTE	
Pin	Assignment
1	NC
2	Rx
3	Tx
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

Baud Rate: 115200bps

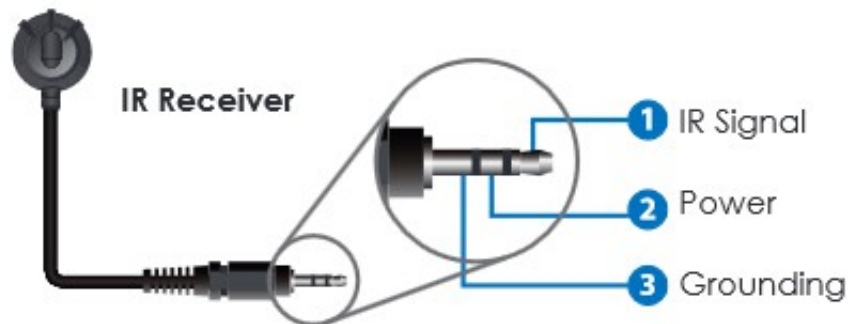
Data Bit: 8 bits

Parity: None

Flow Control: None

Stop Bit: 1

### IR Cable Pin Assignment



## OLED Menu

	Audio In
	Display Set
Function Select	IP Config
	Reset to Default
	Line IN
	RCA IN
Audio Select	Optical
	Coaxial
	eAudio
	TimeOut 5s
Display Setting	TimeOut 10s
	TimeOut 15s
	IP Config
IP Configuration	SN
	GW
Reset to Default	OK?

## RS-232 and Telnet Commands

Command	Description	Parameter
?	DISPLAY LIST OF COMMANDS, CODE ENTRY IS CASE SENSITIVE	
HELP	DISPLAY LIST OF COMMANDS, CODE ENTRY IS CASE SENSITIVE	
PWR	POWER CONTROL	0:OFF 1:ON
SOURCE	AUDIO IN SELECT	S:STATUS 0:LINE IN 1:RCA

		IN 2:OPT. 3:COAX. 4:eAUDIO
VOL	OUTPUT VOLUME SETTING	S:SHOWVOL +:+0.5dB ++:+2dB -:-0.5dB --:-2dB or 0~-80dB
MUTE	OUTPUT VOLUME MUTE CONTROL.	S:STATUS 0:UN-MUTE 1:MUTE
FADEFAULT	FACTORY DEFAULT SETTING	
REBOOT	REBOOT THE UNIT	
SIPMODE	SET THE IP MODE	0:STATIC IP 1:DHCP
IPCONFIG	PRINT THE IP CONFIGURATION TO THE SCREEN	
SHOWMAC	PRINT THE MAC ADDRESS TO THE SCREEN	
SHOWTPORT	PRINT THE TELNET COMMUNICATION PORT TO THE SCREEN	
SHOWHPORT	PRINT THE HTTP COMMUNICATION PORT TO THE SCREEN	
SIPADD	SET THE IP ADDRESS	
SNETMASK	SET THE NET MASK ADDRESS	
SGATEWAY	SET THE GATEWAY ADDRES	
SHTTPPORT	SET THE HTTP COMMUNICATION PORT	[1-65535] [80]
STELNETPORT	SET THE TELNET COMMUNICATION PORT	[1-65535] [23]

Baud Rate: 115200bps

Data Bit: 8 bits

Parity: None

Stop Bit: 1

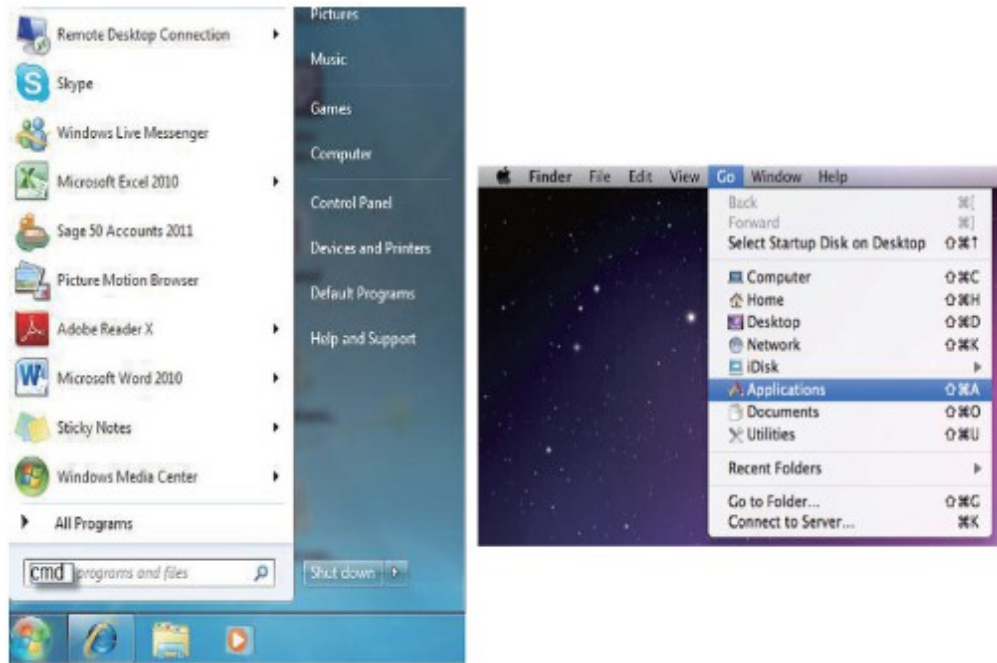
Flow Control: None



## Telnet Control

To access the telnet control under MS windows, click 'Start' menu and type "cmd" in the search field then press enter.

Under Mac OS X, go to Go → Application → Utilities → Terminal  
See below for reference.



Once in the command line interface (CLI) type "telnet", then the IP address of the unit and hit enter.

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>telnet 192.168.5.80 23
```



Press “Help” or “?” then hit enter to bring up all available commands.

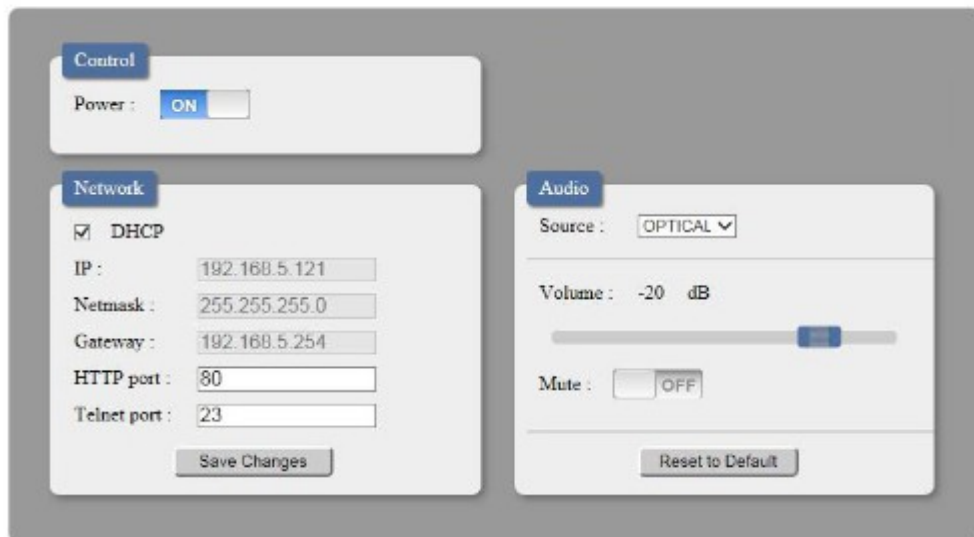
```
Command List
-----
HELP
PWR
SOURCE
UOL
MUTE
FADEFAULT
REBOOT
SIPMODE
IPCONFIG
SHOWMAC
SHOWPORT
SHOWHPORT
SIPADD
SNETMASK
SGATEWAY
SHHTTPORT
STELNETPORT
```

**Note:**

Any commands will not be executed unless followed by a carriage return. Commands are case-insensitive. If the IP is changed then the IP Address required for Telnet access will also change accordingly.

**WebGUI Control**

On a PC/Laptop that is connected to an active network system, open a web browser and type device’s IP address (available from LCM monitor) on the web address entry bar. The browser will display the device’s control page.



## Specifications

<b>Input ports</b>	1 x Optical, 1 x Coaxial, 1 x 3.5Ø Line in, 1 x R/L RCA, 1 x D-Sub 9pin (RS-232), 1 x RJ-45 (LAN), 1 x Service, 1 x IR, 1 x AUDIO-CAT
<b>Output ports</b>	1 x Power Rated Output Amplifer L/R
<b>Digital Audio</b>	LPCM 2CH
<b>Audio Sampling Rate</b>	Up to 96kHz
<b>Stereo Input/Output Level</b>	2 Vrms ± 0.2
<b>ESD Protection</b>	Human body model: ±8kV (air-gap discharge)
<b>Power Supply</b>	24V/ 2.7A DC (US/EU standards, CE/ FCC/UL certified)
<b>Dimensions</b>	215mm(W) x 174mm(D) x 47mm(H)
<b>Weight</b>	1060 g
<b>Chassis Material</b>	Aluminum
<b>Silkscreen Color</b>	Black
<b>Operating Temperature</b>	Operating from 0°C ~ 40°C
<b>Storage Temperature</b>	-20°C ~ 60°C / -4 °F ~ 140°F
<b>Relative Humidity</b>	20 ~ 90% RH (non-condensing)
<b>Power Consumption</b>	52W

