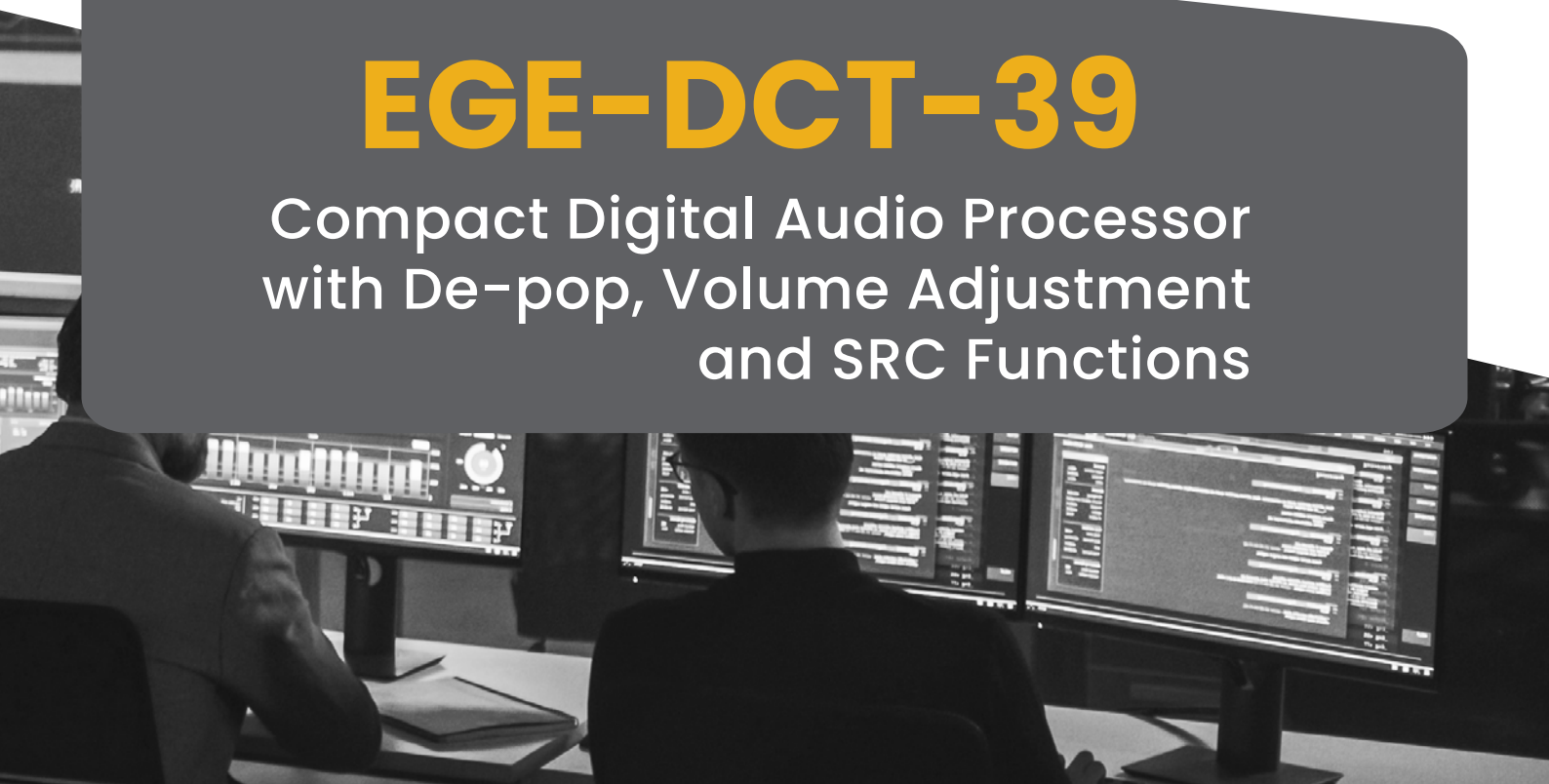
geratech®

EGE-DCT-39

Compact Digital Audio Processor with De-pop, Volume Adjustment and SRC Functions



DISCLAIMERS

The information in this manual has been carefully checked and is believed to be accurate. Geratech assumes no responsibility for any infringements of patents or other rights of third parties which may result from its use.

Geratech assumes no responsibility for any inaccuracies that may be contained in this document. Geratech also makes no commitment to update or to keep current the information contained in this document.

Geratech reserves the right to make improvements to this document and/or product at any time and without notice.

COPYRIGHT NOTICE

TRADEMARK ACKNOWLEDGMENTS

All products or service names mentioned in this document may be trademarks of the companies with which they are associated.

SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply.

Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person to walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

REVISION HISTORY

VERSION NO.	DATE (DD/MM/YY)	SUMMARY OF CHANGE
VR0	16/10/15	Preliminary Release

CONTENTS

1. INTRODUCTION

The digital audio processor is designed to allow optical or coaxial LPCM audio source input and convert to different sampling rates up to 192kHz/24bits. The digital audio processor utilizes DSP engine instead of software process to prevent distortion. The converted audio source signal could be output to both optical and coaxial audio signals simultaneously. The outputs can be connected with amplifier for high quality audio output. Besides, the audio processor support DSD over PCM (DOP) decodes to PCM in order to further process the audio signal not only for sampling rate convert but also volume control. Meanwhile, the pop noise could be reduced when plug in
audio source.

2. APPLICATIONS

- Professional music player
- Amplifier producer
- Audio equipment manufacturer
- Studio

3. PACKAGE CONTENTS

- 1×Digital Audio Processor Main Unit
- 1×5 V/2.6 A Power Adaptor
- 1×Operation Manual

4. SYSTEM REQUIREMENTS

Input audio coaxial or optical audio source and output to amplifier.

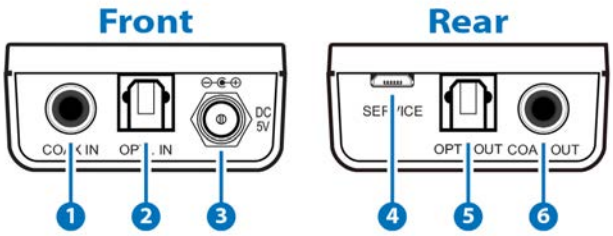
5. FEATURES

- Supports coaxial and optical digital audio input
- Supports Non-LPCM pass through
- Supports coaxial and optical audio output simultaneously
- Supports LPCM input sampling rates up to 192kHz
- Supports to convert sampling rate of input audio source. The maximum sampling rate up to 192kHz/24 bits
- De-pop function to eliminate pop sound once plug in audio source
- Supports volume control, the minimum volume control could be reduced to -60dB
- Supports DOP decode to PCM of coaxial and optical audio source

- Supports firmware update via micro USB
- Compact and light weight design

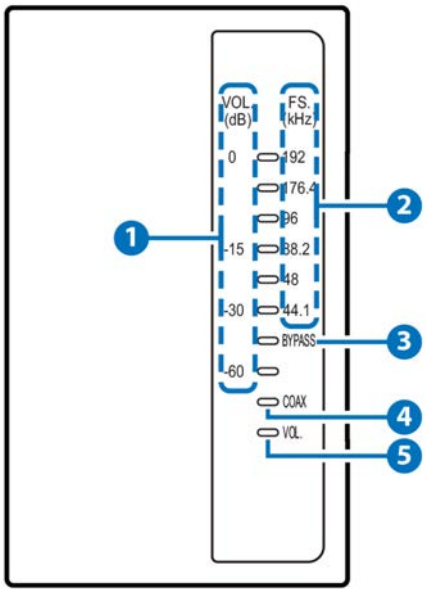
6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel



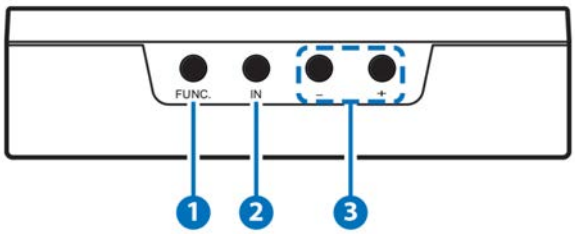
1. **COAX IN**: Connects the coaxial audio source. Just plug in coaxial audio source here.
2. **OPTI. IN:** Connects the optical audio source. Just plug in optical audio source here.
3. **DC 5V:** Connects adaptor of DC 5V to power on the device.
4. **SERVICE:** Support firmware update in field and supply power to device instead of power adaptor.
5. **OPTI. OUT:** For optical audio output such as amplifier.
6. **COAX OUT:** For coaxial audio output such as speaker.

6.2 Top Panel



1. **VOL. (dB) LEDs:** Volume indicator shows the volume from 0 , -15, -30 and -60 dB.
2. **FS. (kHz) LEDs:** Audio frequency indictor of 192, 176.4 , 96 , 88.2 , 48, 44.1 kHz.
3. **BYPASS LED:** Bypass indicator will illuminate when switches device to “Output Sample Frequency Mode” and no need to convert the input audio source to different sampling rate.
4. **COAX LED:** Coaxial indicator will illuminate once connects with coaxial audio source. The indicator will not illuminate when connects with optical source.
5. **VOL. LED:** Volume indicator will illuminate once selects to “VOL mode”.

6.3 Side Panel

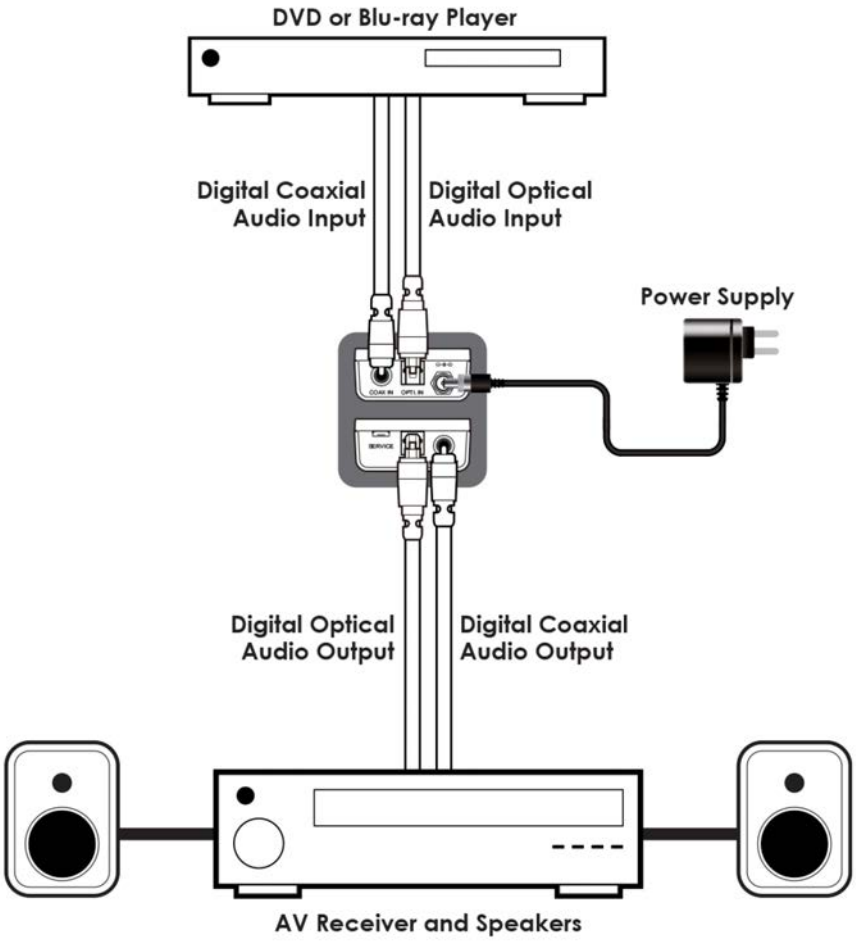


1. **FUNC**: Function key provides modes selections. There are three modes available.
   a. Volume Mode: The default setting sets at volume mode. The volume could be adjusted once under this mode and the VOL indicator will illuminate. The mode will automatically switch

back to this mode once switches to input sampling frequency mode or output sampling frequency mode after four seconds and not active them.
b. Input Sampling Frequency Detection Mode: The sampling rate of input audio source will be automatically identified under this mode. The frequency indicator will flash for input sampling rate accordingly. If no audio source input, the frequency indicator will not illuminate.
c. Output Sampling Frequency Adjust Mode: This mode offer input audio source converts to different output frequencies of 44.1, 48, 88.1, 96,176.4 and 192kHz. If the frequency no needs to convert, please select “Bypass”.

2. **IN:** The default setting sets at “coaxial in” for input audio source. If input audio source is optical audio source, please press “IN” key to switch it.
3. **MINUS/PLUS (-/+):** To adjust output volume from 0~-60dB or select in different frequencies.

7. CONNECTION DIAGRAM



8. SPECIFICATIONS

Input Ports	1×Coaxial, 1×Optical
Output Ports	1×Coaxial, 1×Optical
Power Supply	5 V/2.6 A DC (US/EU standards, CE/ FCC/UL certified)
ESD Protection	Human body model: ±8 kV (air-gap discharge) ±4 kV (contact discharge)
Dimensions	55 mm (W)×75.5 mm (D)×22.5 mm(H)/ Jacks Excluded 55 mm (W)×80.5 mm (D)×22.5 mm(H)/ Jacks İncluded
Weight	61 g
Chassis Material	Plastic
Silkscreen Color	Black
Operating Temperature	0 ˚C ~ 40 ˚C/32 ˚F ~ 104 ˚F
Storage Temperature	–20 ˚C ~ 60˚C/–4 ˚F ~ 140 ˚F
Relative Humidity	20 ~ 90 % RH (non-condensing)
Power Consumption	0.7 W

9. ACRONYMS

ACRONYM	COMPLETE TERM
COAX	Coaxial
LPCM	Linear Pulse-Code Modulation
OPTI	Optical
USB	Universal Serial Bus

EGERATE

www.egerate.com www.geratech.eu