

geratech®



# EGE-EXT-RS232-TX-RX

RS-232 over Single CAT5e/6/7  
Transmitter / Receiver



**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**

No part of this document may be reproduced, transmitted, transcribed, stored in a retrieval system, or any of its part translated into any language or computer file, in any form or by any means—electronic, mechanical, magnetic, optical, chemical, manual, or otherwise—without express written permission and consent from Geratech.

© Copyright 2011 by Geratech.

All Rights Reserved.

Version 1.1 August 2011

**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 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
VS1	18/02/09	Preliminary Release
VS2	11/08/14	Updated format/diagrams

**CONTENTS**

<b>1. Introduction</b> .....	<b>1</b>
<b>2. Applications</b> .....	<b>1</b>
<b>3. Package Contents</b> .....	<b>1</b>
<b>4. System Requirements</b> .....	<b>1</b>
<b>5. Features</b> .....	<b>1</b>
<b>6. Operation Controls and Functions</b> .....	<b>2</b>
6.1 Transmitter Front and Rear Panels .....	2
6.2 Receiver Front and Rear Panels .....	3
<b>7. Connection Diagram</b> .....	<b>4</b>
<b>8. Specifications</b> .....	<b>5</b>
<b>9. Acronyms</b> .....	<b>5</b>



## 1. INTRODUCTION

The RS-232 over CAT5e Extender is an affordable, hardware-based solution for extending the operating distance between RS-232 protocol controlled devices, such as a projector or HDMI matrix. With most RS-232 devices you are limited by the length of the RS-232 cable, however, the CAT5 RS-232 extender can extend that distance up to 250 meters over a single CAT5e cable allowing a tremendous amount of flexibility in how and where you install your devices. The RS-232 extender also provides full duplex transmission and hardware handshaking signals, without the need for any complicated set-up procedures.

## 2. APPLICATIONS

- System installation
- Control an RS-232 devices from in a remote location
- Integrate an RS-232 control system into a CAT5e infrastructure (point to point)

## 3. PACKAGE CONTENTS

- RS-232 over CAT5e Transmitter
- RS-232 over CAT5e Receiver
- 5 V/1 A DC Power Adaptor
- Operation Manual

## 4. SYSTEM REQUIREMENTS

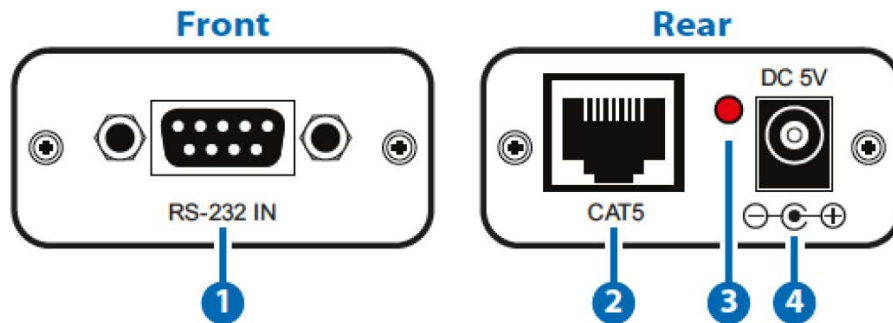
- PC/laptop or RS-232 Control system, 2 DB 9 female to male cables, Industry Standard CAT 5 cable and RS-232 controllable device.

## 5. FEATURES

- Extends the connection of any compatible RS-232 devices up to 250 meters from the input location to the output location
- Requires only a single CAT5e cable
- Perfect for RS-232 control of digital signage
- Supports Baud Rates 110~921600 and 8-bit Data Bit

## 6. OPERATION CONTROLS AND FUNCTIONS

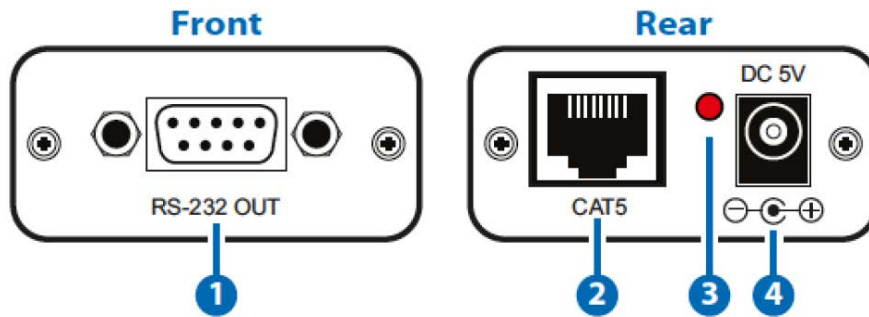
### 6.1 Transmitter Front and Rear Panels



- 1 **RS-232 IN:** Connect a RS-232 control device such as a PC or laptop with a DB 9 female to male cable passthrough of RS-232 commands to the device to be controlled.
- 2 **CAT5 OUTPUT:** Connect a CAT5e cable (up to 250m) and connect it to the Receiver unit.
- 3 **POWER LED:** This LED will illuminate when the unit is connected to an active power supply.
- 4 **5V DC:** Connect the 5V DC power

*Note: In most circumstances, only a single adaptor is needed to power both Transmitter and Receiver units. However, if operating at extreme distances then two adaptors will be required.*

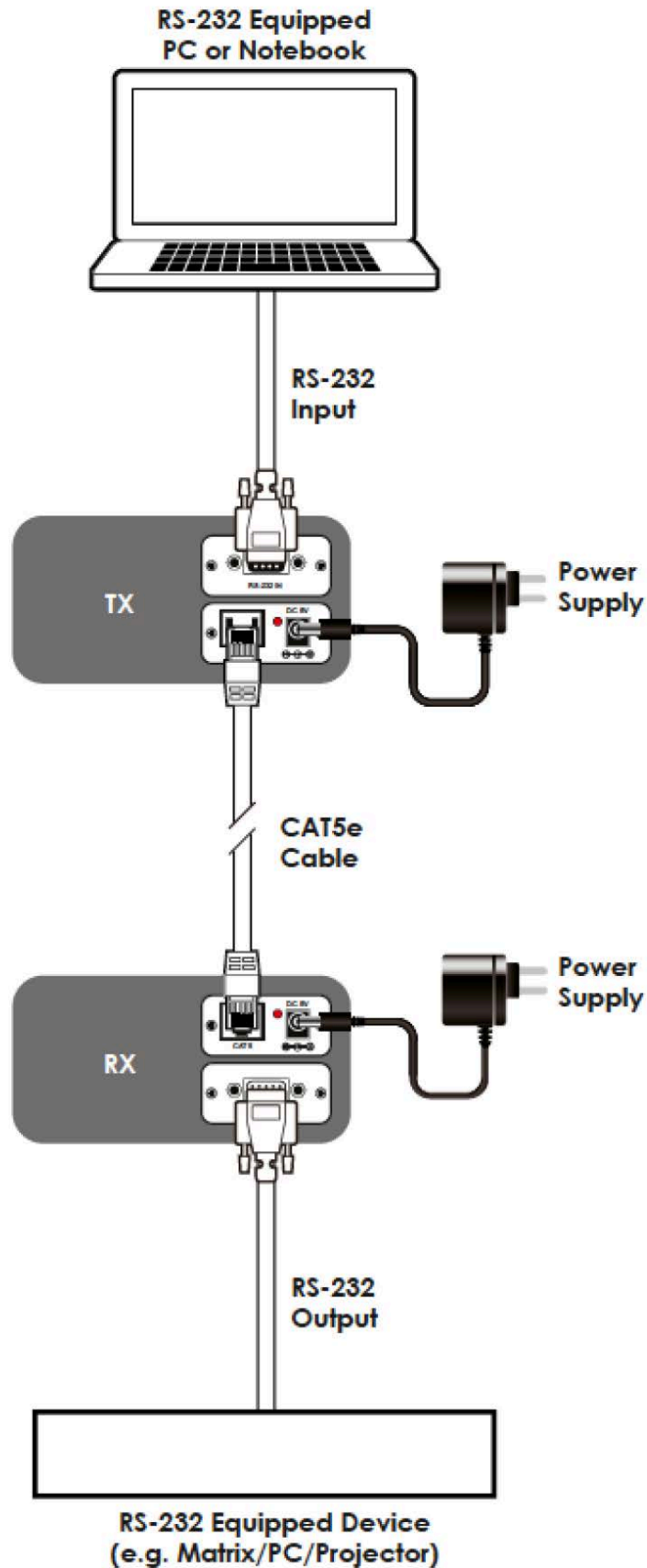
## 6.2 Receiver Front and Rear Panels



- 1 **RS-232 OUT:** Connect to the RS-232 device to be controlled with a DB 9 male to female cable for passthrough of RS-232 commands from the PC/ laptop or control device..
- 2 **CAT5 INPUT:** Connect a CAT5e cable (up to 250m) and connect it to the Transmitter unit.
- 3 **POWER LED:** This LED will illuminate when the unit is connected to an active power supply.
- 4 **5V DC:** Connect the 5V DC power adaptor into the unit and plug the adaptor into an AC outlet.

*Note: In most circumstances, only a single adaptor is needed to power both Transmitter and Receiver units. However, if operating at extreme distances then two adaptors will be required.*

**7. CONNECTION DIAGRAM**





## 8. SPECIFICATIONS

### 8.1 Technical Specifications

Input Ports	1×RS-232 (D-sub 9-pin Female), 1×CAT5e (RJ45)
Output Ports	1×RS-232 (D-sub 9-pin Male), 1×CAT5e (RJ45)
Power Supply	5 V/1 A DC (US/EU standard, CE/FCC/UL certified)
Dimensions	TX: 50 mm(W)×67 mm(H)×23 mm(D) RX: 50 mm(W)×67 mm(H)×23 mm(D)
Weight	TX: 80 g RX: 80 g
Chassis Material	Aluminum
Silkscreen Color	Silver
Operating Temperature	0 °C~40 °C
Power Consumption	0.5 W (Max)

## 9. ACRONYMS

ACRONYM	COMPLETE TERM
<b>CAT5e</b>	Category 5 Cable
<b>RS-232</b>	Standard for Serial Communication Data Transmission





[www.egerate.com](http://www.egerate.com)

[www.geratech.eu](http://www.geratech.eu)