

**4 Channel RS232C/USB Converter
(Independent Isolation Type)**



USB-033

User's Manual

Ver. 1.0

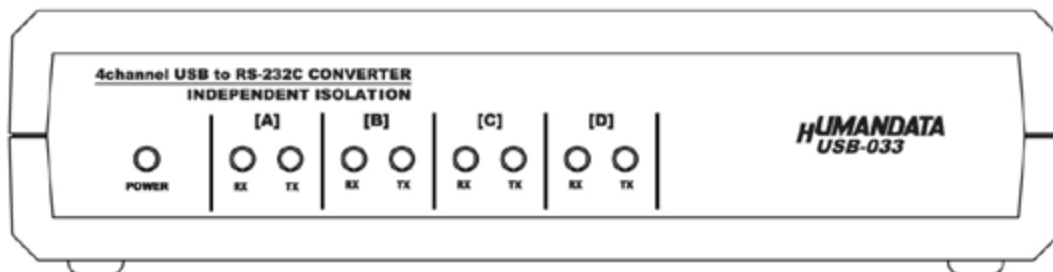




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● **Precautions**

 <p>o Not</p>	1	This product uses ordinary off-the-shelf electronic components, and is therefore inappropriate for use in applications that require special quality or reliability and are expected to protect human lives or prevent accidents, such as safety mechanisms in fields including space, aeronautics, medicine, and nuclear power.
	2	Do not be used underwater or in high-humidity environments.
	3	Do not be used in the presence of corrosive gases, combustible gases, or other flammable gases.
	4	Do not turn on power when circuit board surface is in contact with other metal.
	5	Do not apply voltage higher than rated voltage.

 <p>Attention</p>	6	This manual may be revised in the future without notice owing to improvements.
	7	All efforts have been made to produce the best manual possible, but if users notice an error or other problem, we ask that they notify us.
	8	Item 7 notwithstanding, HuMANDATA cannot be held liable for the consequences arising from use of this product.
	9	HuMANDATA cannot be held liable for consequences arising from using this product in a way different from the uses described herein, or from uses not shown herein.
	10	This manual, circuit diagrams, sample circuits, and other content may not be copied, reproduced, or distributed without permission.
	11	If the product emits smoke, catches fire, or becomes unusually hot, cut the power immediately.
	12	Do not install the control cables or communication cables together with the main circuit lines or power cables. In such an environment, it may result in malfunction due to noise.
	13	Be careful of static electricity.

- **Revision History**

Date	Revision	Description
Jan. 17, 2017	v1.0	Initial release

- **Introduction**

Thank you very much for purchasing our product of USB-033.

USB-033 is a 4 channel USB to RS-232C converter that isolated between each RS-232C channels and USB port. You can add 4 channels of RS232C port from 1 USB port. Those 4 ports are isolated independently from USB side.




1. Specifications

Item	Description	Remarks
Model	USB-033	
Power	DC 5V / Less than 450mA Supplied through a USB port	Bus-powered
HOST interface	USB 2.0 Compliant (High Speed is supported)	USB 1.1 compatible ESD protection
HOST Connector	USB mini-B type (Female)	
LSI	FT4232H	
Isolation Method	Bus isolation	
Isolation Protection	Over 2500VDC	Designed value
Input/Output Interface	RS232C	ESD protection
RS232C Port	4 Port	
RS232C Connector	D-Sub 9 pin (male) #4-40 UNC	M2.6 screws are also included in the package
Communication Method	Asynchronous Serial Communication	
Baud Rate	300 bps to 1 Mbps	Support custom baud rate
Data Bits	7 or 8 bit	
Stop Bits	1 or 2 bit	
Parity	Even, Odd, No-parity	
FIFO RX Buffer Size	2048 bytes/ch	
FIFO TX Buffer Size	2048 bytes/ch	
Supports OS	Windows 10/8.1/8/7/Vista/XP	
Operating Ambient Temp.	-20 to 60 °C (-4 to 140 °F)	No condensation permitted
Operating Ambient Humi.	30 to 85 %RH	
Storage Ambient Temp.	-20 to 60 °C (-4 to 140 °F)	
Storage Ambient Humi.	30 to 85 %RH	
Noise Tolerance	Not defined	
Standard	Not defined	
Weight	Approx. 300 [g]	Only main body
Dimensions	165 x 80.5 x 39 [mm] (6.496" x 3.169" x 1.535")	Without projections

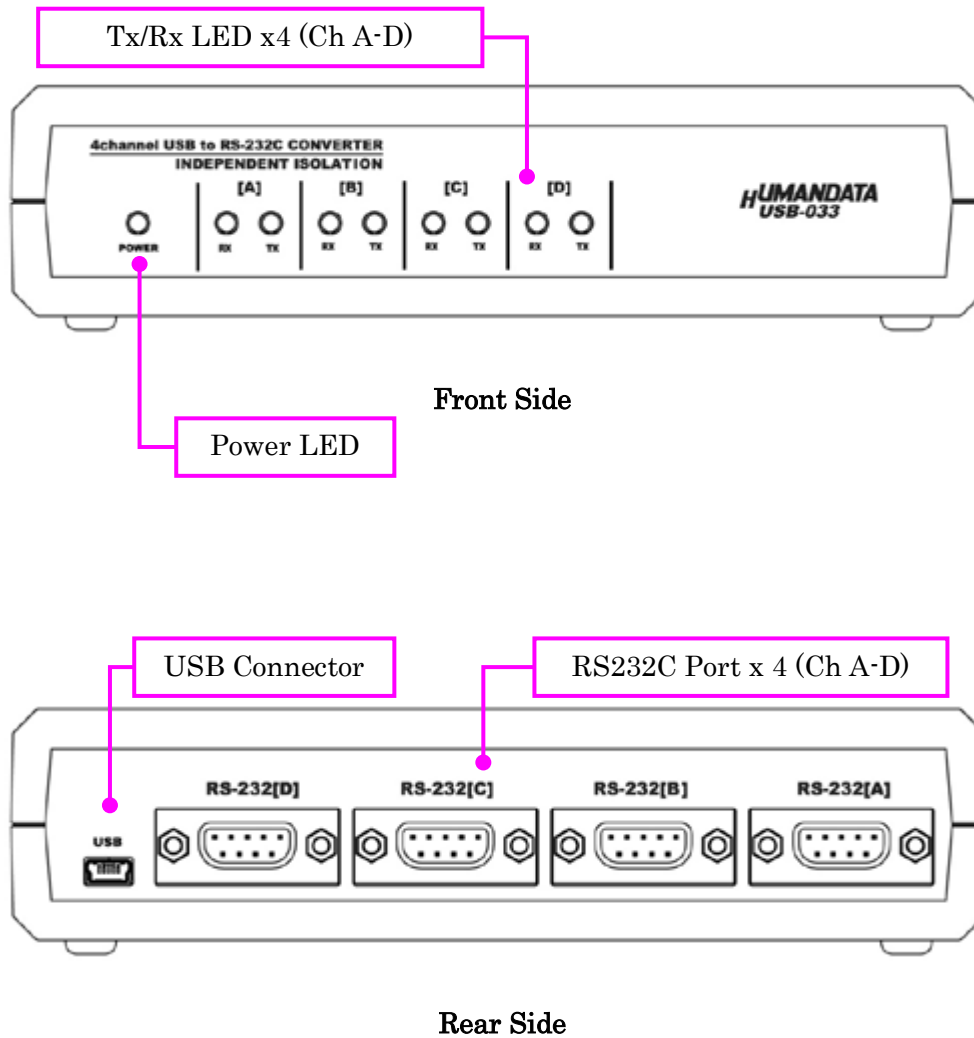
* There is a case to be changed to the parts of the compatibility

* Power saving function (suspend, standby, sleep and others) is not supported

1.1. Optional Accessories

Model Name	Image	Description
ACC-027		Metal bracket type A for vertical mounting USB series JAN : 4937920801096
ACC-028		Metal bracket type A for horizontal mounting USB series JAN : 4937920801102
ACC-031		Din rail attachment type B for USB series JAN : 4937920801256

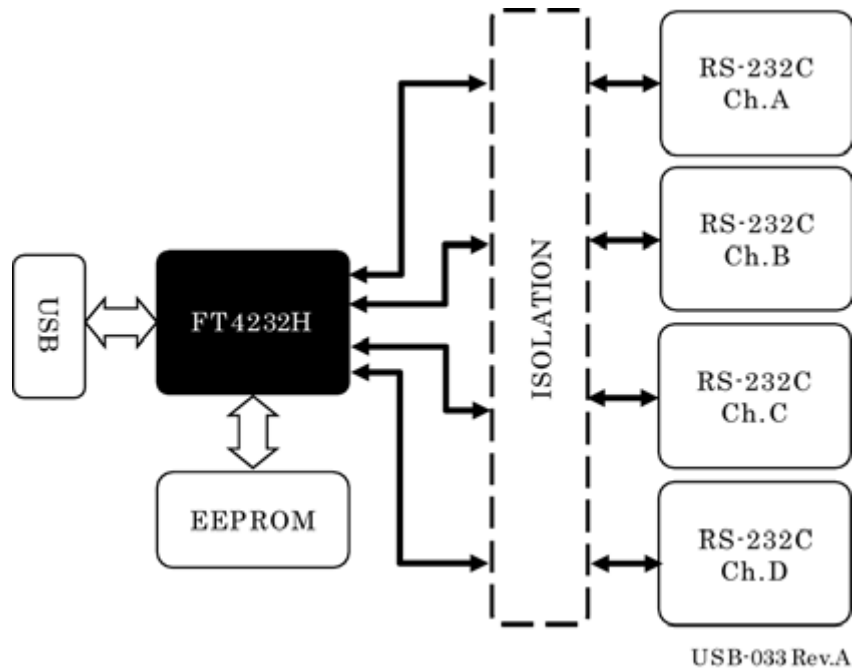
2. Overview



3. Power Supply

USB-033 is powered through a USB port (Bus-powered).

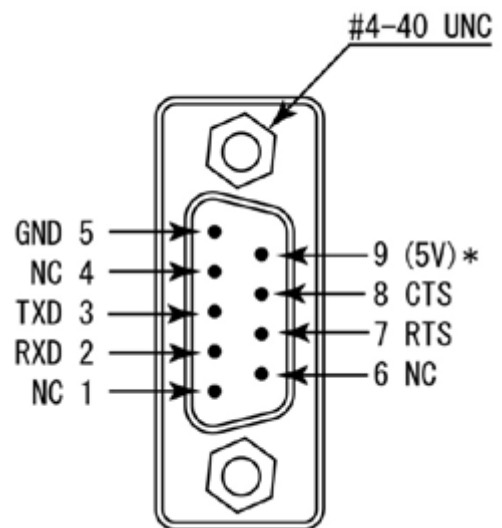
4. Block Diagram



Between USB and RS-232C side is isolated.

5. RS232C Pin Assignment

Pin No	Signal	Dir.	Remarks
1	NC	-	unused
2	RXD	In	Receive data
3	TXD	Out	Transmit data
4	NC	-	unused
5	GND	-	Signal GND
6	NC	-	unused
7	RTS	Out	Request to send
8	CTS	In	Clear to send
9	(5V)	-	Optional 5V
CASE	FG	-	Connect to GND



D-Sub 9pin Male

* reserved for 5V output

6. Additional Documentation and User Support

The following documents and other supports are available at

<http://www.hdl.co.jp/en/faspc/USB/usb-033>

- Device Driver
 - Dimensional drawing
- ... and more.

7. Warranty and Compensation

Please refer to the following URL for the warranty.

<http://www.fa.hdl.co.jp/en/fa-warranty.html>

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