SYSTEMBASE

SB200

Serial Converter
One-chip Solution

Transceiver | SB200

One-chip RS232 to RS422/RS485
Converting Transceiver

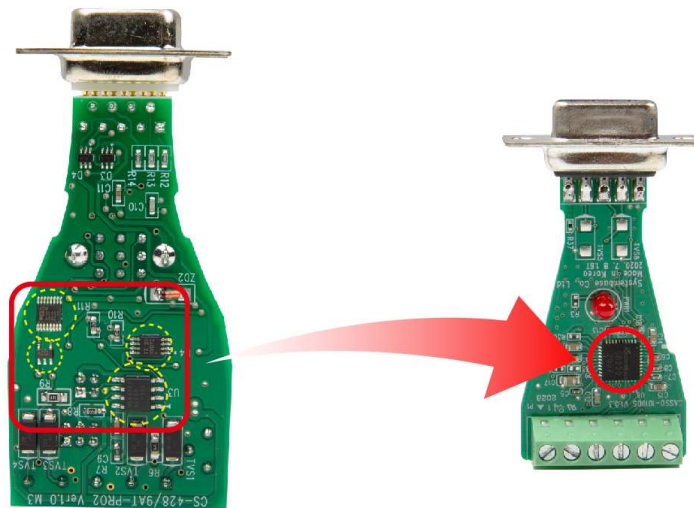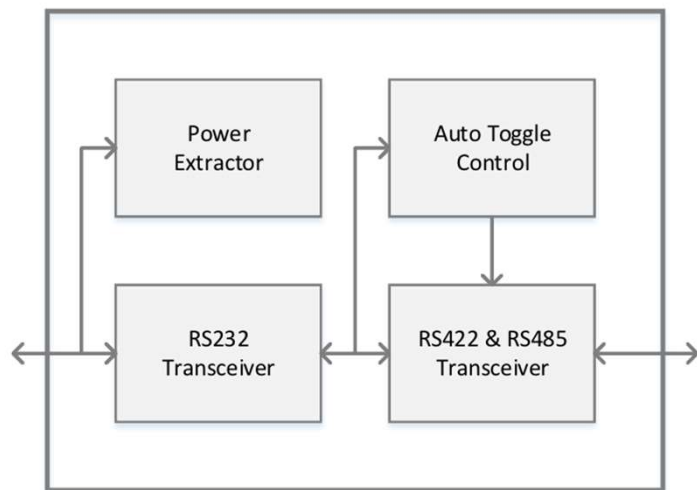## Features

- World best one-chip solution for a serial converter

- Applied port-powered function without external power source

- Auto direction control for RS422 and RS485 multi-drop network

- Maximum Baudrate 921.6Kbps

- Industrial-grade operation grade, QFN-40 Package (6mm*6mm)
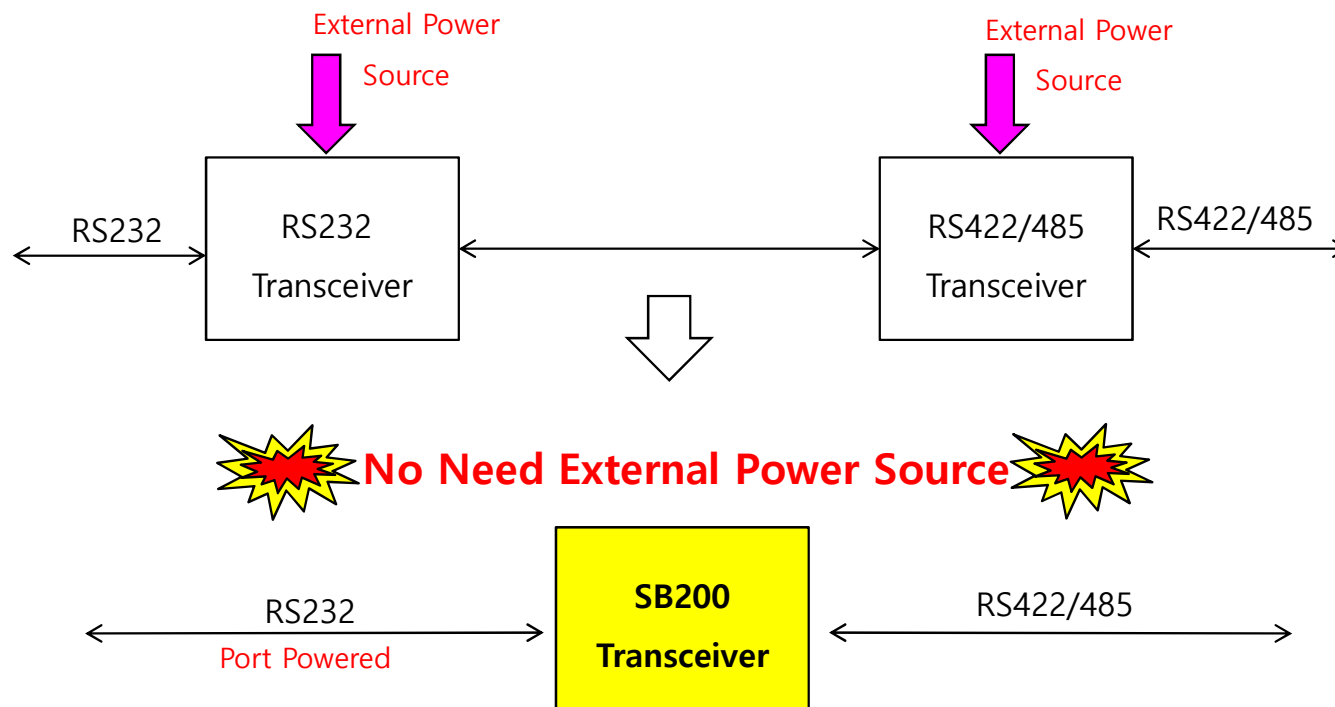
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One-chip RS232 to RS422/RS485 Converting Transceiver

Port-powered Function

External Power Source → RS232 Transceiver ← RS232

External Power Source → RS422/485 Transceiver → RS422/485

No Need External Power Source

RS232 Port Powered → **SB200 Transceiver** → RS422/485

Transceiver | SB200

One-chip RS232 to RS422/RS485 Converting Transceiver

Performance Table of SB200 vs Low-Cost Converter

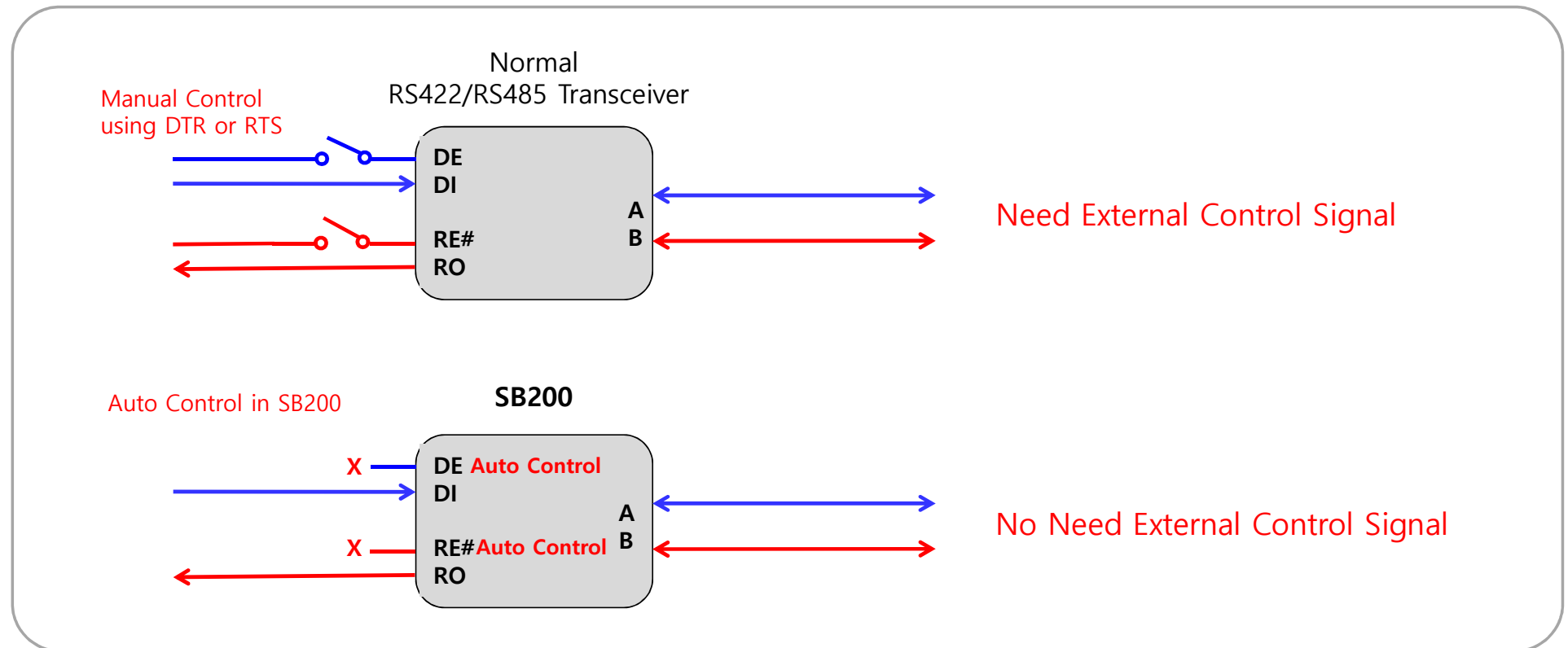|	Long Range (1.2km, with TERM.)			
	Low-Cost Converter		SB200	
	Port Power	External Power	Port Power	External Power
RS422	115.2kbps	115.2kbps	460.8kbps	460.8kbps
RS485 Echo	115.2kbps	115.2kbps	230.4kbps	460.8kbps
RS485 Non-Echo	115.2kbps	115.2kbps	230.4kbps	460.8kbps

*This report is the LAB test result of SystemBase.

* The table above is the result of laboratory experiments and may differ from field results.

Transceiver | SB200

Auto direction Control

Normal
RS422/RS485 Transceiver

Manual Control
using DTR or RTS

DE
DI
          A
RE#   B
RO

Need External Control Signal

Auto Control in SB200

SB200

X — DE **Auto Control**
      DI
                    A
X — RE# **Auto Control** B
      RO

No Need External Control Signal

Transceiver | SB200

Product comparison table

	SB200	CS-428/9AT-PRO2	Low Price Converter
Manufacturer	SystemBase	SystemBase	-
I/F	RS232 to RS422/485	RS232 to RS422/485	RS232 to RS422/485
Speed	Max. 1Mbps	Max. 1Mbps	Max. 115.2kbps
RS422/485 Mode	RS422 (RS485 4 Wire) RS485	RS422 (RS485 4 Wire) RS485	RS422 (RS485 4 Wire) RS485
RS422 Mode	1:1, **Multi-Drop**	1:1, Multi-Drop	1:1 (Multi-Drop x)
RS485 Mode	Non-Echo, **Echo**	Non-Echo, Echo	Non-Echo, (Echo x)
Maximum Baud Rate [RS485, 1.2km(UTP)]	**Max 460.8kbps**	Max 115.2kbps	Max 115.2kbps
Large output swing [RS232, 30m(UTP)]	**Max 460.8kbps**	Max 230.4kbps	Max 115.2kbps
Termination	**Selectable**	Selectable	Forced
LED Indicating Support	○	○	X
Industrial Operating Temp. (-40~85℃)	○	○	X

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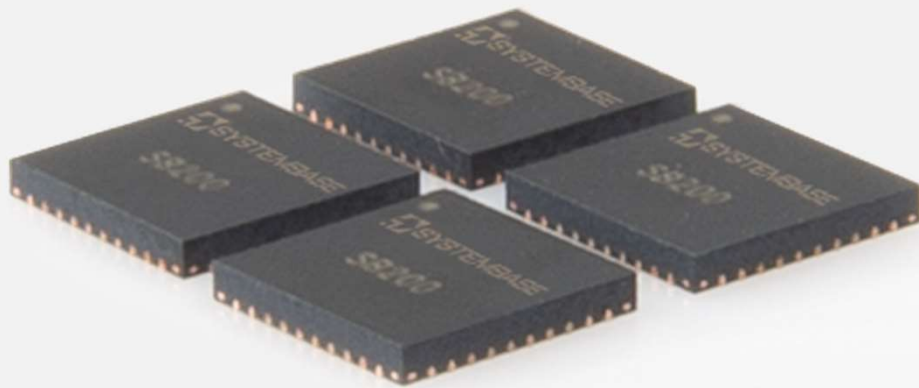
www.sysbas.com

info@sysbas.com **Sales**
tech@sysbas.com **Technical Support**