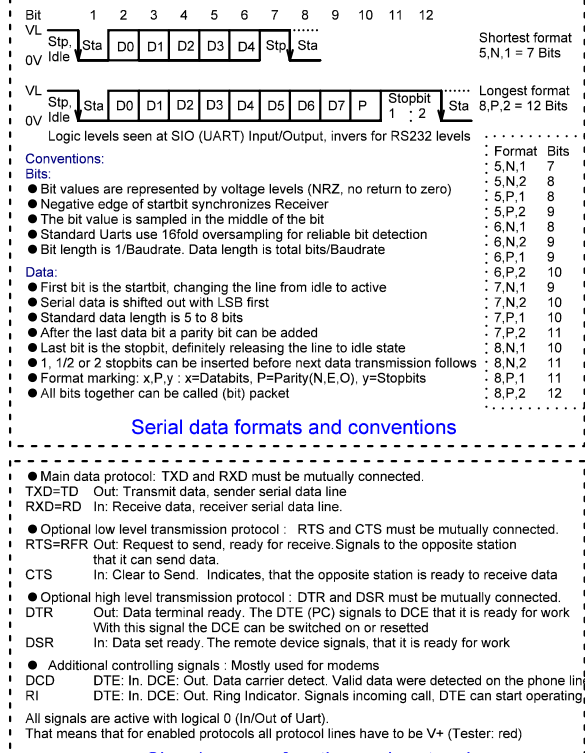
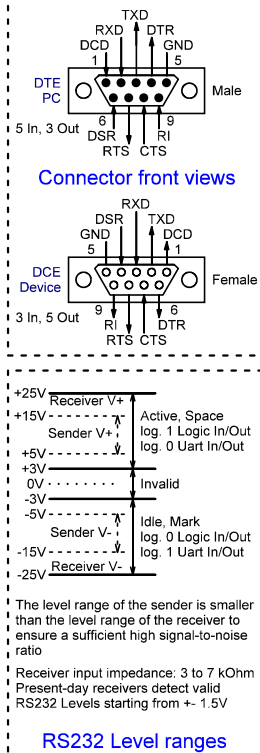


Standard RS232 data and signal flow, direction and level between DTE and DCE



150	19200	Baudrate = Bits/second
300	38400	Bit length = 1/Baudrate
600	57600	Packet length = Bits/Baudrate
1200	115200	Example: 8,N,1 = 10 Bits with 9600 Baud
2400	230400	1,041 ms / bit packet
4800	460800	
9600	921600	

Standard PC hardware can handle up to 115200 Baud. Higher rates with USB to RS232 converters

Send and receive Baudrates must not differ more than 3% from each other

Standard baudrates

Parity:

The basic data can be completed by a parity bit, which is used to detect simple transmission errors. Error correction is not possible.

Five types are commonly used:

- None(N): No parity bit used and added
- Even (E): The quantity of 1's in the basic data plus the parity bit must be an even number.
- Odd(O): The quantity of 1's in the basic data plus the parity bit must be an odd number.
- Mark(M): The parity bit is always 1
- Space(S): The parity bit is always 0

Examples:

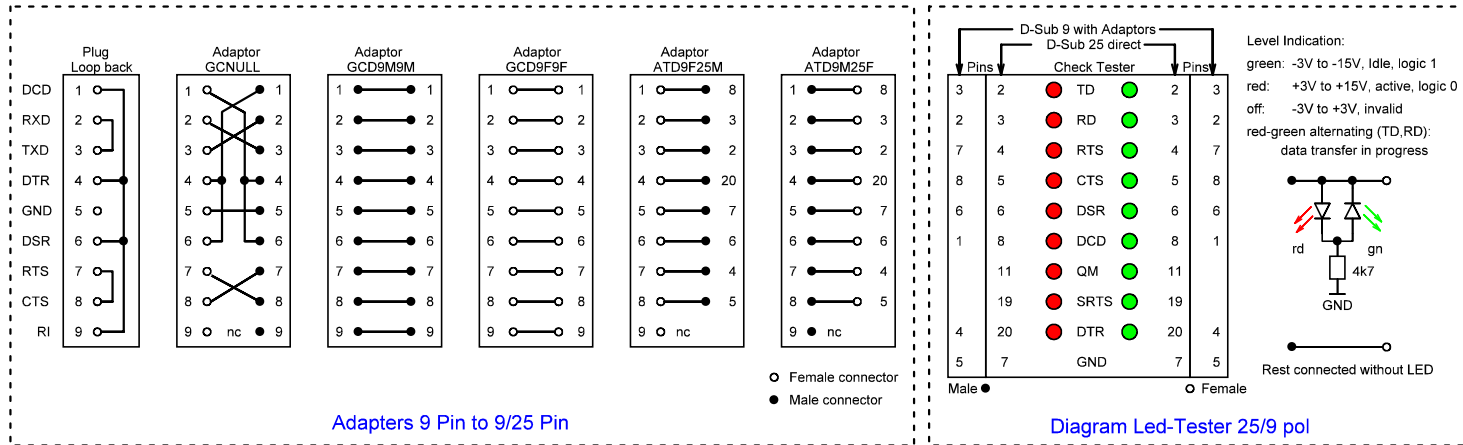
- 8 basic data bits = 10011011 = 5 times 1
- Even parity: 1 (6 times 1), Odd parity: 0 (5 times 1)
- 8 basic data bits = 10111011 = 6 times 1
- Even parity: 0 (6 times 1), Odd parity: 1 (7 times 1)

Errors:

- Parity error occurs when the computed parity from the received basic data is not the same as the received parity bit.
- Framing error occurs when the data line RD is held low for more than the complete packet transmission time from start bit to stop bit(s) inclusive. The sender intentionally generates this state. The receiver can react on this error by resetting the device

Parity and receive errors

RS232 Knowledge. The most important facts about the serial interface



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Revision H

If any Information on this page is incorrect or if you miss some important details, please send us an email to: support@iftools.com

For timing related examination of RS232 connections our analyzer MSB-RS232 can be used.

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