HT6571

Multiple RS-232 Drivers And Receivers

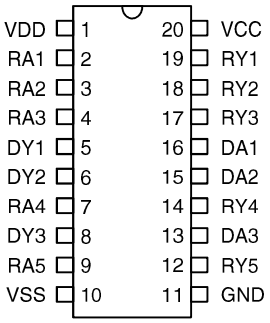
Features

- Single-chip with easy interface between UART and serial port connector
- Three drivers and five receivers meet or exceed the requirements of EIA/TIA-232-D
- Driver output slew rate limited to 30V/μs max.
- Driver current-limited output: 10mA typ.
- Flexible supply voltage range
- ESD protection exceeds 3kV

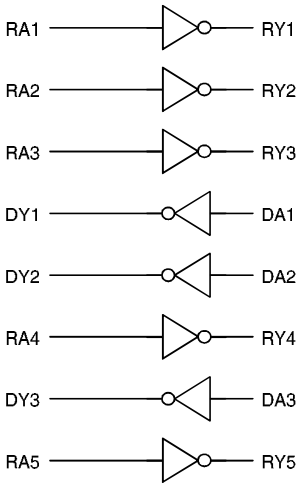
General Description

The HT6571 is a CMOS device containing three RS-232 line drivers, and five RS-232 line receivers that are used to interface data terminal equipment (DTE) with data circuit-terminating equipment (DCE).

Pin Assignment



Block Diagram



Absolute Maximum Ratings

Supply Voltage (VSS VDD) ..... –15V~15V
Supply Voltage (GND VCC) ..... –0.3V~5.5V
Input Voltage Driver ..... 0V~7V
Receiver ..... –15V~15V
Output Voltage Driver ..... –15V~15V
Receiver ..... 0V~7V

Electrical characteristics

Symbol	Paremeter	Test Condition			Min.	Typ.	Max.	Unit
		V_{DD}	V_{CC}	Condition				
V_{DD}	Operation Voltage	—	—	—	7.5	9	15	V
V_{SS}	Operation Voltage	—	—	—	–7.5	–9	–15	V
V_{CC}	Operation Voltage	—	—	—	4.5	5	5.5	V
V_{IH1}	Driver Input High	12V	5V		2	—	—	V
V_{IL1}	Driver Input Low	12V	5V		—	—	0.8	V
V_{IH2}	Receiver Input High	12V	5V		—	3	—	V
V_{IL2}	Receiver Input Low	12V	5V		—	2	—	V
I_{OH1}	Receiver Output Source Current	12V	5V	V_O=2.4V	–1	–2	–3	mA
I_{OL1}	Receiver Output Sink Current	12V	5V	V_O=0.4V	+1	+2	+3	mA
$I_{OS(H)}$	High-level Driver Short Current	12V	5V	V_O=0V	–6	–10	–12	mA
$I_{OS(L)}$	Low-level Driver Short Current	12V	5V	V_O=0V	30	40	50	mA
S_{R1}	Slew Rate	12V	5V	R_L=7KΩ, C_1=50pF	—	3	—	V/μs

Application Circuit