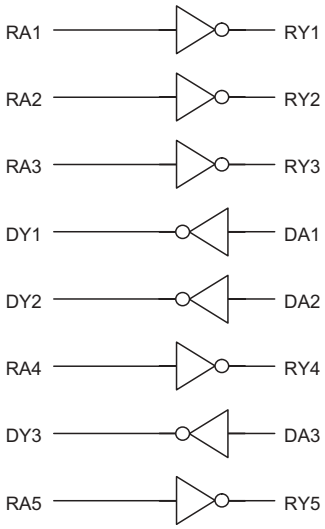
Features

- 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
- Designed to support data rates up to 120 Kbit/s
- Driver current-limited output: 25mA typ.
- Flexible supply voltage range
- ESD protection exceeds 5kV
- 20-pin SOP package

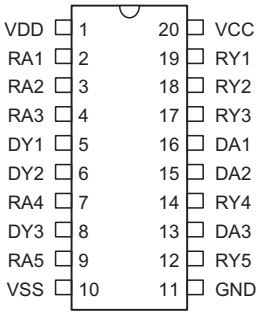
General Description

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).

Block Diagram



Pin Assignment



HT6571
− 20 SOP-A

Absolute Maximum Ratings

Supply Voltage (VSS VDD) ..... −15V~15V

Input Voltage Driver ..... 0V~7V

Output Voltage Driver ..... −15V~15V

Supply Voltage (GND VCC) ..... −0.3V~5.5V

Receiver ..... −15V~15V

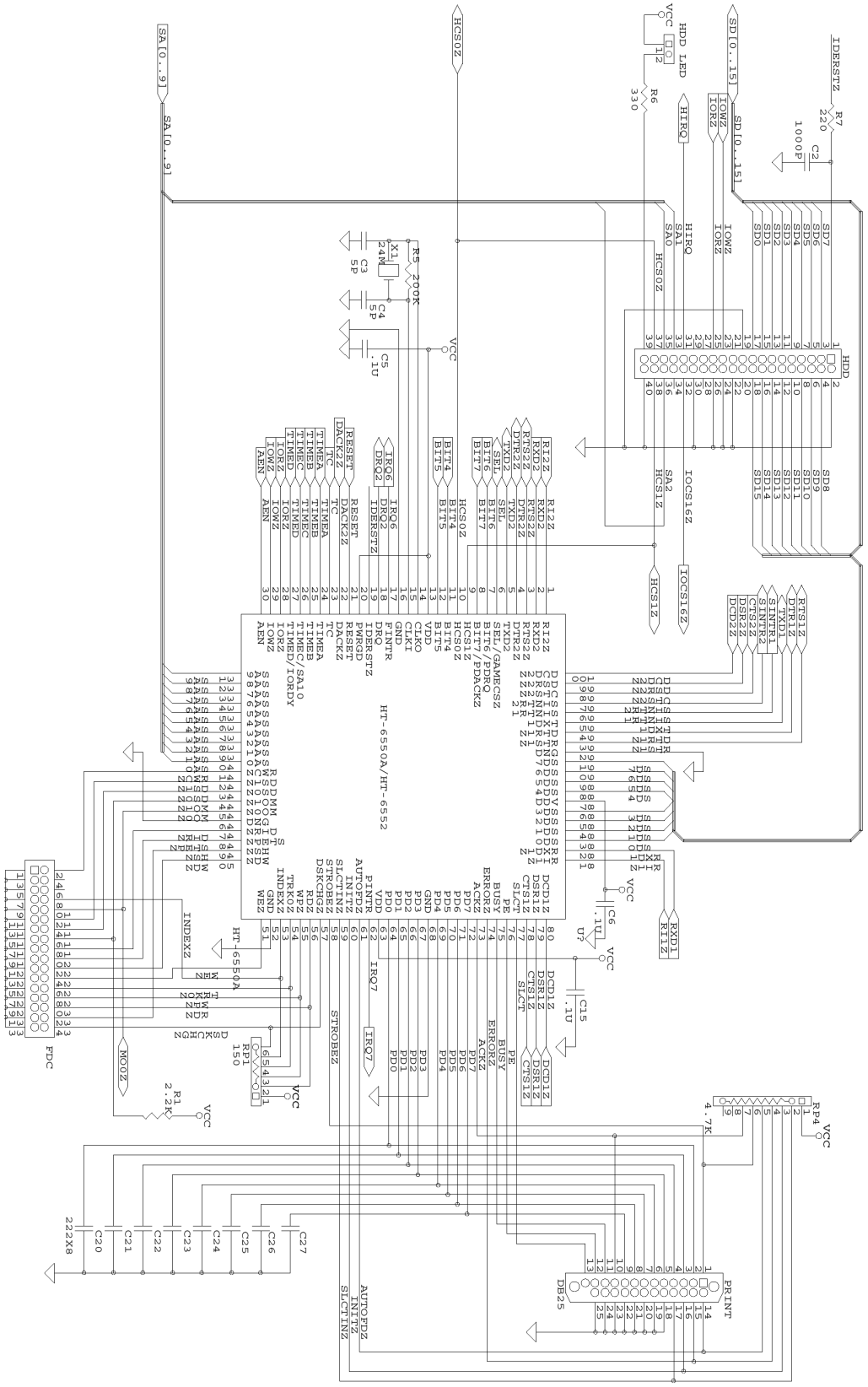
Receiver ..... 0V~7V

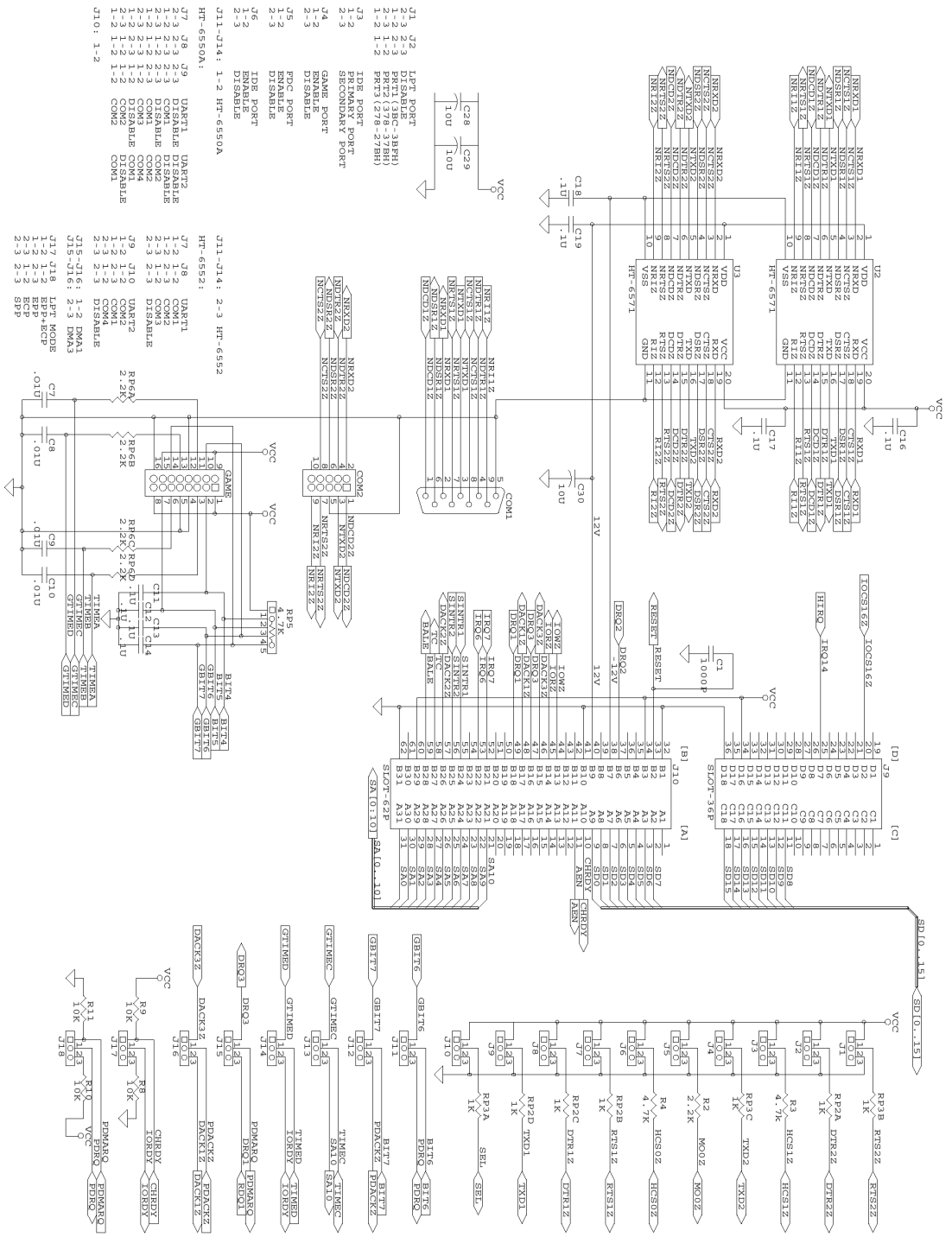
Note: These are stress ratings only. Stresses exceeding the range specified under "Absolute Maximum Ratings" may cause substantial damage to the device. Functional operation of this device at other conditions beyond those listed in the specification is not implied and prolonged exposure to extreme conditions may affect device reliability.

Electrical Characteristics

Symbol	Paremeter	Test Conditions			Min.	Typ.	Max.	Unit
		V_{DD}	V_{CC}	Conditions				
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		—	—	0	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	–15	–25	–35	mA
$I_{OS(L)}$	Low-level Driver Short Current	12V	5V	V_O=0V	15	25	35	mA
S_{R1}	Slew Rate	12V	5V	R_L=7kΩ, C_1=330pF	—	—	30	V/μs

Application Circuits





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