

Multiple RS-232 Drivers and Receivers

Features

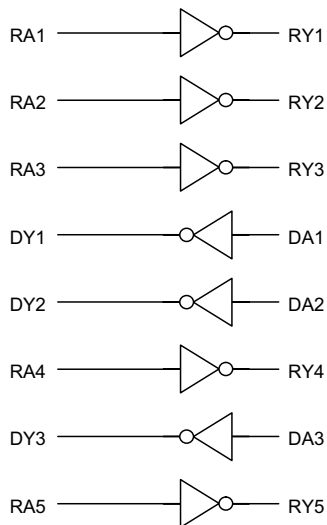
- Single-chip with easy interface between UART and serial port connector
- Three drivers and five receivers meet or exceed the requirements of EIA/TIA-232-D
- Designed to support data rates up to 120 Kbit/s
- Driver current-limited output: 25mA typ.
- Flexible supply voltage range
- ESD protection exceeds 5kV
- 20-pin SOP package

General Description

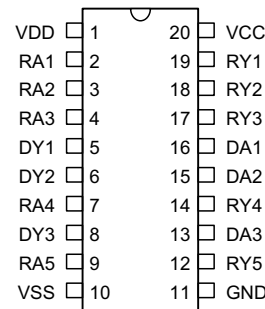
The HT6571 is a CMOS device containing three RS-232 line drivers, and five RS-232 line receivers that are used

to interface data terminal equipment (DTE) with data circuit-terminating equipment (DCE).

Block Diagram



Pin Assignment



HT6571
- 20 SOP-A

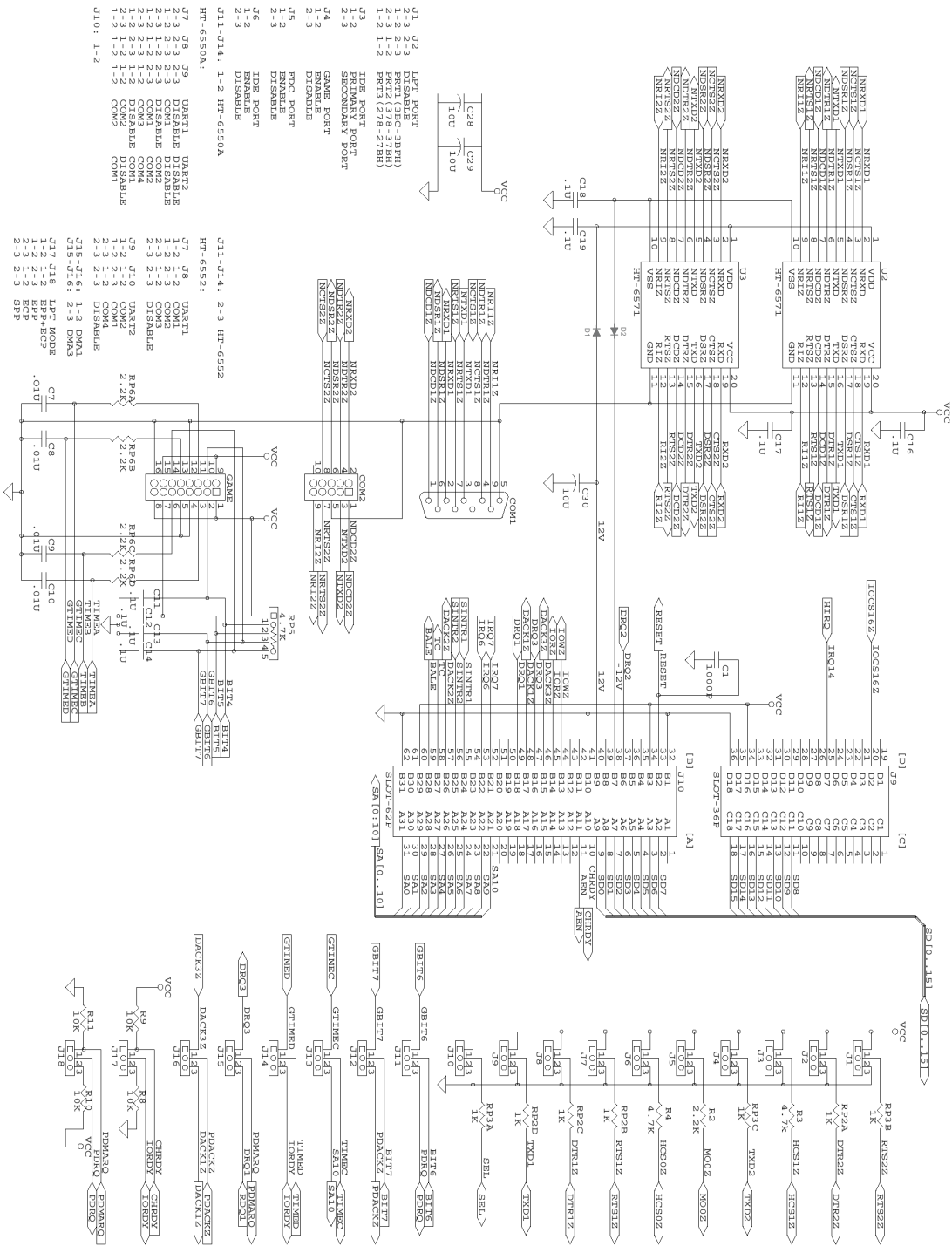
Absolute Maximum Ratings

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

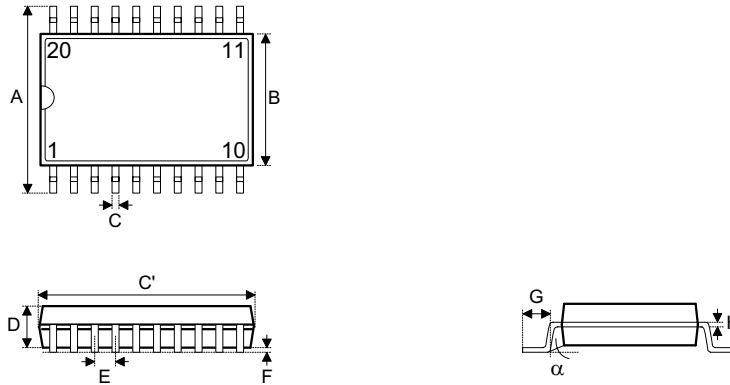
Electrical Characteristics

Symbol	Parameter	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



Package Information

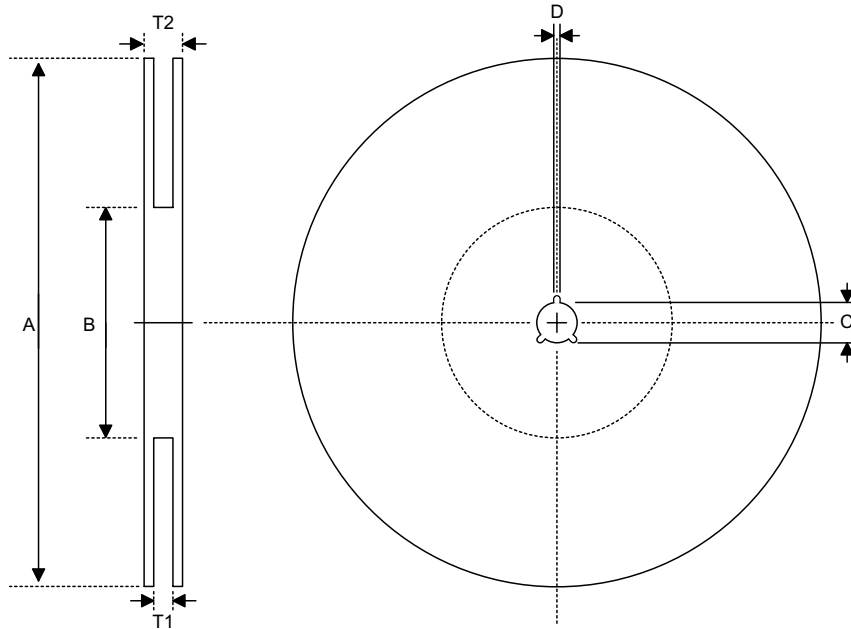
20-pin SOP (300mil) outline dimensions



Symbol	Dimensions in mil		
	Min.	Nom.	Max.
A	394	—	419
B	290	—	300
C	14	—	20
C'	490	—	510
D	92	—	104
E	—	50	—
F	4	—	—
G	32	—	38
H	4	—	12
α	0°	—	10°

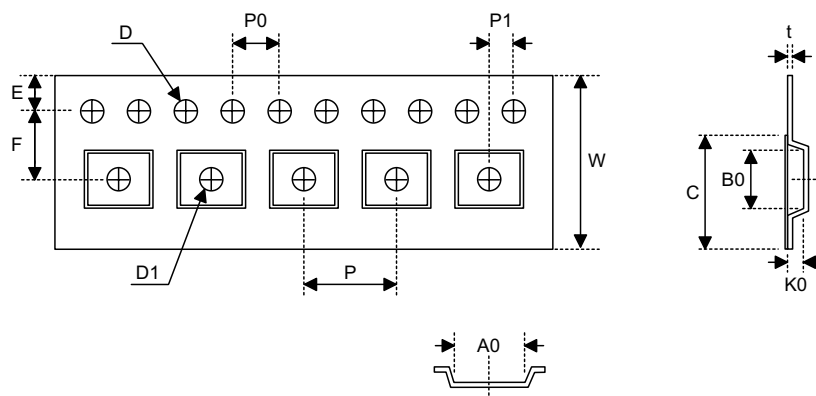
Product Tape and Reel Specifications

Reel dimensions



SOP 20W

Symbol	Description	Dimensions in mm
A	Reel Outer Diameter	330±1.0
B	Reel Inner Diameter	62±1.5
C	Spindle Hole Diameter	13.0+0.5 -0.2
D	Key Slit Width	2.0±0.5
T1	Space Between Flange	24.8+0.3 -0.2
T2	Reel Thickness	30.2±0.2

Carrier tape dimensions

SOP 20W

Symbol	Description	Dimensions in mm
W	Carrier Tape Width	24.0+0.3 -0.1
P	Cavity Pitch	12.0±0.1
E	Perforation Position	1.75±0.1
F	Cavity to Perforation (Width Direction)	11.5±0.1
D	Perforation Diameter	1.5+0.1
D1	Cavity Hole Diameter	1.5+0.25
P0	Perforation Pitch	4.0±0.1
P1	Cavity to Perforation (Length Direction)	2.0±0.1
A0	Cavity Length	10.8±0.1
B0	Cavity Width	13.3±0.1
K0	Cavity Depth	3.2±0.1
t	Carrier Tape Thickness	0.3±0.05
C	Cover Tape Width	21.3

Holtek Semiconductor Inc. (Headquarters)

No.3, Creation Rd. II, Science Park, Hsinchu, Taiwan
Tel: 886-3-563-1999
Fax: 886-3-563-1189
<http://www.holtek.com.tw>

Holtek Semiconductor Inc. (Taipei Sales Office)

4F-2, No. 3-2, YuanQu St., Nankang Software Park, Taipei 115, Taiwan
Tel: 886-2-2655-7070
Fax: 886-2-2655-7373
Fax: 886-2-2655-7383 (International sales hotline)

Holtek Semiconductor Inc. (Shanghai Sales Office)

7th Floor, Building 2, No.889, Yi Shan Rd., Shanghai, China 200233
Tel: 021-6485-5560
Fax: 021-6485-0313
<http://www.holtek.com.cn>

Holtek Semiconductor Inc. (Shenzhen Sales Office)

5/F, Unit A, Productivity Building, Cross of Science M 3rd Road and Gaoxin M 2nd Road, Science Park, Nanshan District, Shenzhen, China 518057
Tel: 0755-8616-9908, 8616-9308
Fax: 0755-8616-9533

Holtek Semiconductor Inc. (Beijing Sales Office)

Suite 1721, Jinyu Tower, A129 West Xuan Wu Men Street, Xicheng District, Beijing, China 100031
Tel: 010-6641-0030, 6641-7751, 6641-7752
Fax: 010-6641-0125

Holtek Semiconductor Inc. (Chengdu Sales Office)

709, Building 3, Champagne Plaza, No.97 Dongda Street, Chengdu, Sichuan, China 610016
Tel: 028-6653-6590
Fax: 028-6653-6591

Holmate Semiconductor, Inc. (North America Sales Office)

46729 Fremont Blvd., Fremont, CA 94538
Tel: 510-252-9880
Fax: 510-252-9885
<http://www.holmate.com>

Copyright © 2002 by HOLTEK SEMICONDUCTOR INC.

The information appearing in this Data Sheet is believed to be accurate at the time of publication. However, Holtek assumes no responsibility arising from the use of the specifications described. The applications mentioned herein are used solely for the purpose of illustration and Holtek makes no warranty or representation that such applications will be suitable without further modification, nor recommends the use of its products for application that may present a risk to human life due to malfunction or otherwise. Holtek's products are not authorized for use as critical components in life support devices or systems. Holtek reserves the right to alter its products without prior notification. For the most up-to-date information, please visit our web site at <http://www.holtek.com.tw>.