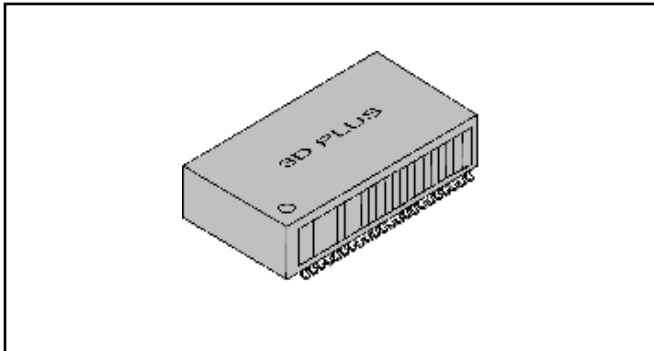


Low-voltage differential signaling Driver and Receiver  
**MODULE**

**3DLV3304VS1374**

3V Quad Driver and Receiver, based on Quad



**Features**

- >400 Mbps (200 MHz) switching rates
- $\pm 450$  mV differential signalling
- 3.3 V power supply
- Ultra low power dissipation
- 0.6 ns maximum differential skew (Driver)
- 4.5 ns maximum propagation delay (Driver)
- 0.2 ns differential skew -typical (Receiver)
- 6 ns maximum propagation delay (Receiver)
- Compatible with IEEE 1596.3 SCI LVDS standard
- Conforms to ANSI/TIA/EIA-644 LVDS standard
- Integrated 110- $\Omega$  Line Termination Resistors
- Cold sparing all I/O pins
- Variable Temperature range
- 0°C to 70°C
- -40°C to +85°C
- -55°C to +125°C
- Available screening option for high reliability application

**General description**

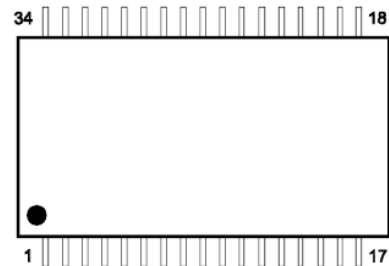
The 3DLV3304VS1374 is Quad CMOS differential line driver and Quad CMOS differential line receiver, designed for applications requiring ultra low power dissipation and high data rates. The device is designed to support data rates in excess of 400 Mbps (200 MHz) utilizing Low Voltage Differential Signaling (LVDS) technology.

The Quad driver accepts LVTTTL/LVCMOS input levels and translates them to low voltage (450 mV) differential output signals, and the Quad receiver accepts low voltage (350 mV typical) differential input signals and translates them to 3V CMOS output levels

The 3DLV3304VS1374 provides a new alternative to high power psuedo-ECL devices for high speed point-to-point interface applications.

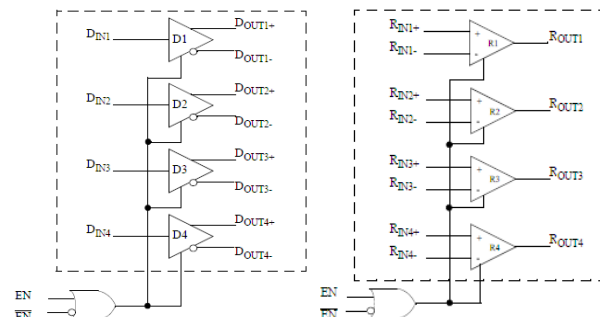
**Pin Assignment (Top View)**

SOP 34 (Pitch : 0.65 mm)



1	Din1	18	Rin3-
2	Dout1+	19	Rin3+
3	Dout1-	20	Rout3
4	DEN1	21	#REN1
5	Dout2-	22	Rout4
6	Dout2+	23	Rin4+
7	Din2	24	Rin4-
8	GND	25	Vdd
9	GND	26	Vdd
10	Rin1-	27	Din3
11	Rin1+	28	Dout3+
12	Rout1	29	Dout3-
13	REN1	30	#DEN1
14	Rout2	31	Dout4-
15	Rin2+	32	Dout4+
16	Rin2-	33	Din4
17	GND	34	Vdd

**FUNCTIONAL Block Diagram**

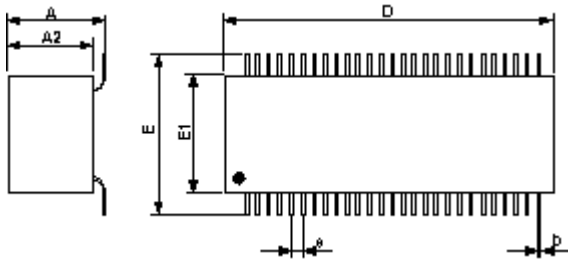


Low-voltage differential signaling Driver and Receiver  
MODULE

3DLV3304VS1374

3V Quad Driver and Receiver, based on Quad

**Mechanical Drawing**



	Min	Max
A	4.95	5.55
A2	3.70	4.30
D	13.90	14.30
E	7.80	8.20
E1	5.40	5.60
b	0.30	
e	0.65	
Dimension (mm)		
Max. weight : 2.50gr.		

**Test Tools**

3DLV3304VS1374 ENPLASOTS-\_\_\_\_\_ Modified by 3D PLUS

**DC OPERATING CONDITIONS**

Parameter	Symbol	Min	Max	Unit
Supply Voltage	$V_{DD}$	3.0	3.6	V
Input High Voltage	$V_{IH}$	2.0	$V_{DD}$	V
Input Low Voltage	$V_{IL}$	GND	0.8	V

**ABSOLUTE MAXIMUM RATINGS**

Parameter	Symbol	Value	Unit
Supply Voltage	$V_{DD}$	-0.5 to 4.0	V
Input Voltage (Din)	$V_{in}$	-0.5 to $V_{DD}$ +0.5	V
Storage temperature	$T_{stg}$	-65 to 150	°C

**Note :**  
Permanent device damage may occur if "ABSOLUTE MAXIMUM RATINGS" are exceeded.  
Functional operation should be restricted to recommended operating condition.  
Exposure to higher than recommended voltage for extended periods of time could affect device reliability

**DC Characteristics**

Parameter	Symbol	Max	Unit
Differential Output Voltage(Driver)	$V_{OD1}$	450	mV
Offset Voltage(Driver)	$V_{OS}$	1.375	V
Differential Input High Threshold(Receiver)	$V_{TH}$	+100	mV
Differential Input Low Threshold(Receiver)	$V_{TL}$	-100	mV

**Module Marking**

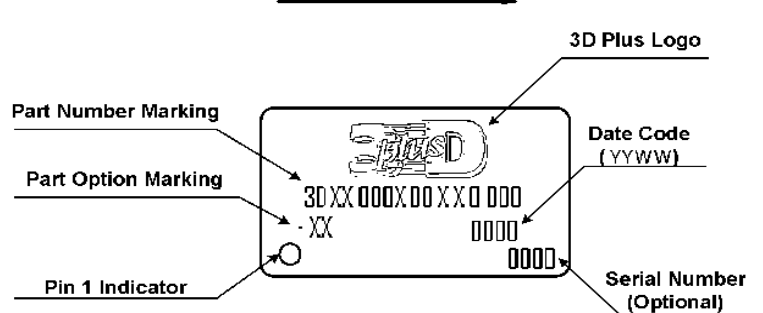
**3DLV3304VS1374**      **X X**

Temperature Range \_\_\_\_\_

**C** = 0°C ~ +70°C  
**I** = -40°C ~ +85°C  
**S** = -55°C ~ +125°C

Quality Level \_\_\_\_\_

**N** = Commercial Grade  
**B** = Industrial Grade  
**S** = Space Grade  
**C** = Custom



**Main Sales Office**

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