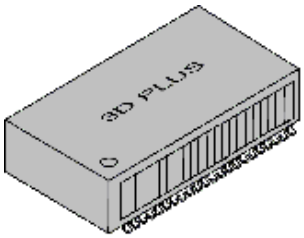
Low-voltage differential signalling Repeater
MODULE

3DLV3408VS1715

3.3V Octal LVDS Repeater



Features

- >200 Mbps (100 MHz) switching rates
- ±450 mV differential signalling
- 3.3 V power supply
- Ultra low power dissipation
- 0.5 ns maximum differential skew
- 10 ns maximum propagation delay
- Compatible with IEEE 1596.3 SCI LVDS standard
- Conforms to ANSI/TIA/EIA-644 LVDS standard
- Integrated 110Ω Line Termination Resistors
- Cold sparing all I/O pins
- Available Temperature range
  - 0°C to 70°C
  - -40°C to +85°C
  - -55°C to +125°C
- Radiation tolerance
  - TID: >100 Krad(Si)
  - SEL LET threshold: >80 MeV.cm^2/mg
- Space Qualified

General description

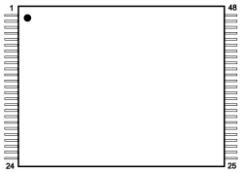
The 3DLV3408VS1715 is an octal differential repeater, designed for applications requiring ultra low power dissipation and high data rates. The device is designed to support data rates up to 200 Mbps (100 MHz) using Low Voltage Differential Signaling (LVDS) technology.

The differential input signals are repeated in order to preserve signal integrity through long transmission distances. LVDS inputs and outputs are LVDS levels as defined by TIA/EIA-644 LVDS standard.

The 3DLV3408VS1715 provides a new alternative for high speed data transmission for point-to-point interface applications.

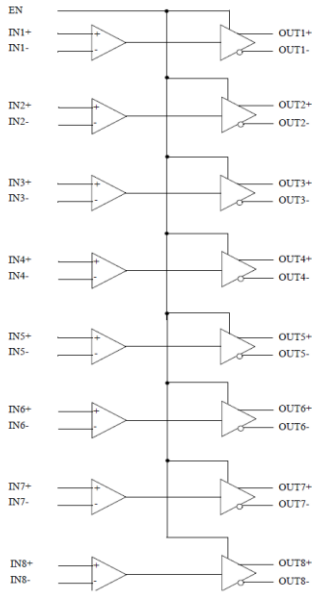
Pin Assignment (Top View)

SOP 48 (Pitch : 0.635 mm)



1	Din1+	18	Din6-	35	GND
2	Din1-	19	Vdd	36	NC
3	Din2+	20	GND	37	NC
4	Din2-	21	Din7+	38	Vdd
5	Vdd	22	Din7-	39	Dout4-
6	GND	23	Din8+	40	Dout4+
7	Din3+	24	Din8-	41	Dout3-
8	Din3-	25	Dout8-	42	Dout3+
9	Din4+	26	Dout8+	43	GND
10	Din4-	27	Dout7-	44	Vdd
11	NC	28	Dout7+	45	Dout2-
12	NC	29	GND	46	Dout2+
13	NC	30	Vdd	47	Dout1-
14	END	31	Dout6-	48	Dout1+
15	Din5+	32	Dout6+		
16	Din5-	33	Dout5-		
17	Din6+	34	Dout5+		

FUNCTIONAL Block Diagram



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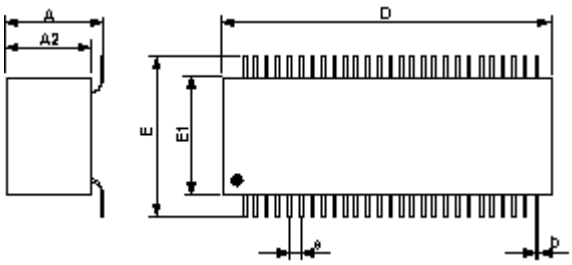
Mechanical Drawing



	Min	Max
A	4.9	5.6
A2	3.8	4.2
D	16.80	17.20
E	17.25	17.65
E1	14.35	14.55
b	0.3	
e	0.635	
Dimension (mm)		

Max. weight : 4g

DC OPERATING CONDITIONS

Parameter	Symbol	Min	Max	Unit
Supply Voltage	V_{DD}	3.0	3.6	V
Input High Voltage	V_{IH}	2.0	5.0	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)	Vin	-5.0 to 6.0	V
Storage temperature	Tstg	-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

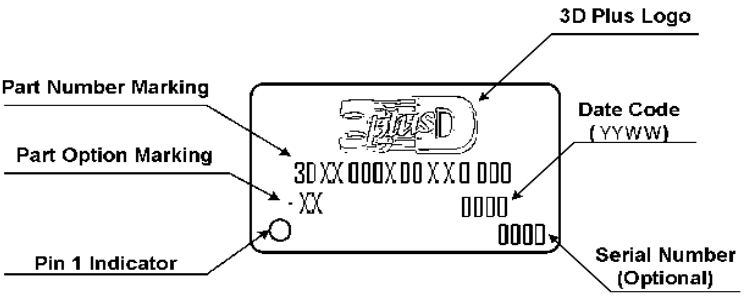
Parameter	Symbol	Max	Unit
Differential Output Voltage	V_{OD}	454	mV
Steady State Common-Mode Output Voltage	$V_{OC(SS)}$	1.375	V
Differential Input High Threshold	V_{TH}	+100	mV
Differential Input Low Threshold	V_{TL}	-100	mV

3DLV3408VS1715 **X** **X**

Temperature Range
C = 0°C ~ +70°C
I = -40°C ~ +85°C
M = -55°C ~ +125°C

Quality Level
N = Commercial Grade
B = Industrial Grade
S = Space Grade

Module Marking



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