

General Description

The LTLB0108 is an 8-bit, dual supply translating transceiver with auto direction sensing, that enables bidirectional voltage level translation. It features two 8-bit input-output ports (An and Bn), one output enable input (OE) and two supply pins (VCC(A) and VCC(B)). VCC(A) can be supplied at any voltage between 1.2 V and 3.6 V and VCC(B) can be supplied at any voltage between 1.65 V and 5.5 V, making the device suitable for translating between any of the low voltage nodes (1.2 V, 1.5 V, 1.8 V, 2.5 V, 3.3 V and 5.0 V).

Pins An and OE are referenced to VCC(A) and pins Bn are referenced to VCC(B). A LOW level at pin OE causes the outputs to assume a high-impedance OFF-state. This device is fully specified for partial power-down applications using IOFF. The IOFF circuitry disables the output, preventing the damaging backflow current through the device when it is powered down.

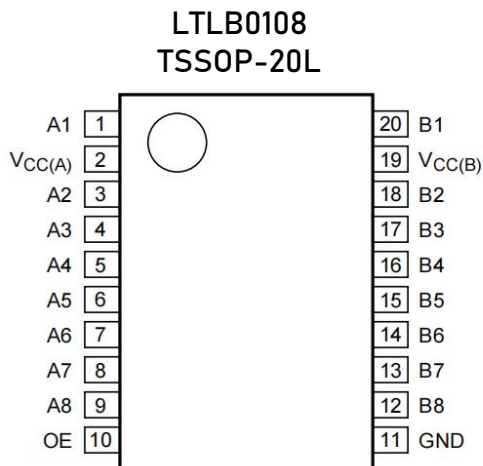
Features

- Wide supply voltage range: VCC(A): 1.2 V to 3.6 V and VCC(B): 1.65 V to 5.5 V
- IOFF circuitry provides partial Power-down mode operation
- Inputs accept voltages up to 5.5 V
- No Power-Supply Sequencing required - either V_{CCA} or V_{CCB} can be ramped first
- ESD protection:
 - HBM: 2500 V for A port
 - HBM: 15000 V for B port
- Specified from -40 °C to +85 °C

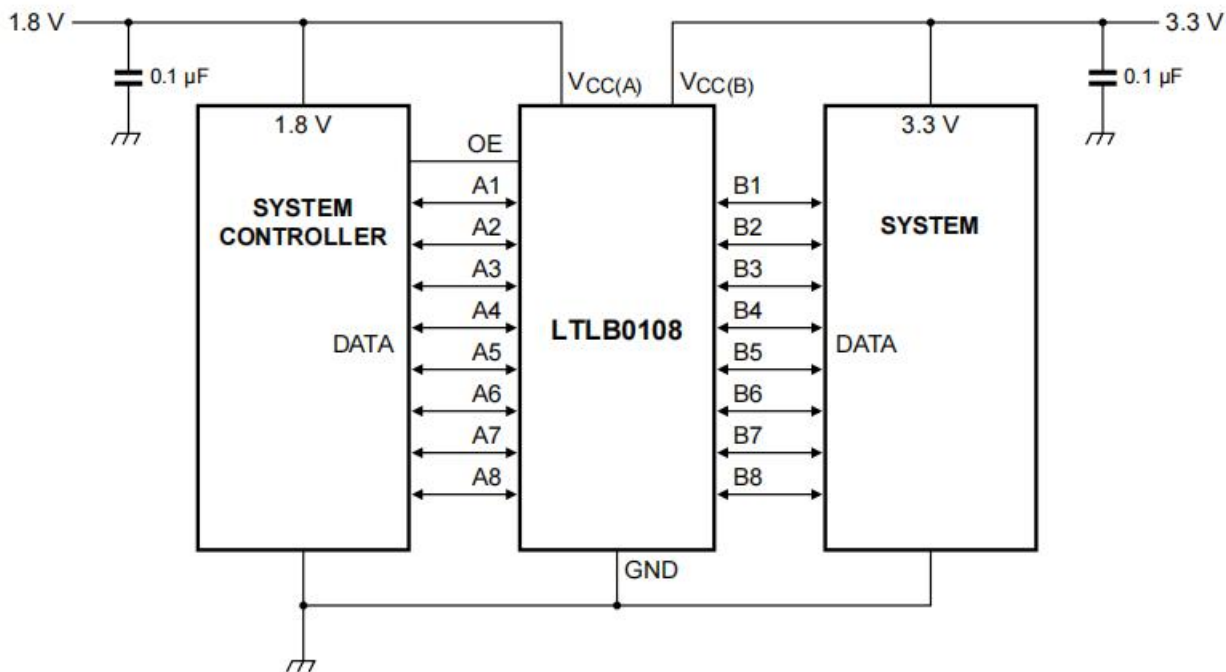
Applications

- Handsets
- Smartphones
- Tablets
- Desktop PCs

Pin Description (Top View)



Typical Application Circuit



Ordering Information

Package Type	Part Number	Quantity	Mark Code
TSSOP-20L	LTLB0108YT20/R6	Tape and Reel, 3 000	B108

Pin Function

Symbol	Package Pin	Function
A1	1	Data input or output (referenced to VCC(A))
VCC(A)	2	Supply voltage A
A2	3	Data input or output (referenced to VCC(A))
A3	4	Data input or output (referenced to VCC(A))
A4	5	Data input or output (referenced to VCC(A))
A5	6	Data input or output (referenced to VCC(A))
A6	7	Data input or output (referenced to VCC(A))
A7	8	Data input or output (referenced to VCC(A))
A8	9	Data input or output (referenced to VCC(A))
OE	10	Output enable input (active HIGH; referenced to VCC(A))
GND	11	Ground
B8	12	Data input or output (referenced to VCC(B))
B7	13	Data input or output (referenced to VCC(B))
B6	14	Data input or output (referenced to VCC(B))
B5	15	Data input or output (referenced to VCC(B))
B4	16	Data input or output (referenced to VCC(B))
B3	17	Data input or output (referenced to VCC(B))
B2	18	Data input or output (referenced to VCC(B))
VCC(B)	19	Supply voltage B
B1	20	Data input or output (referenced to VCC(B))

CAUTION: These devices are sensitive to electrostatic discharge; follow proper IC Handling Procedures.
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