

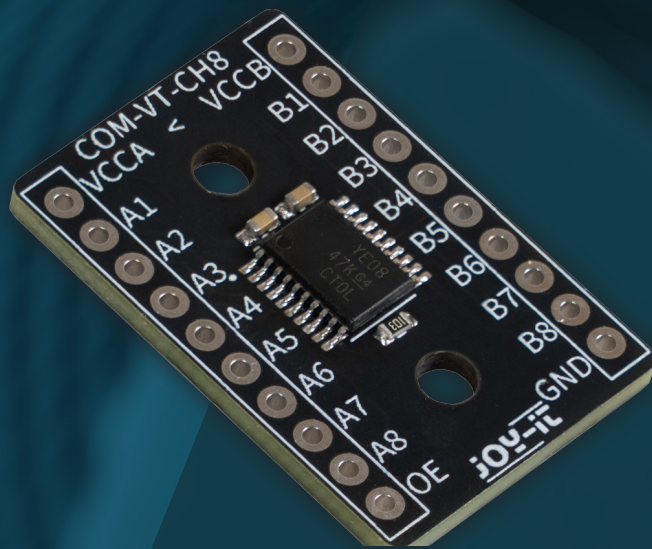
8-CHANNEL LEVEL SHIFTER COM-VT-CH8

BIDIRECTIONAL VOLTAGE TRANSLATOR FOR LOGIC LEVELS FROM 1.2 V TO 5.5 V

JOY-IT

SPECIAL FEATURES

- ✓ 8-channel, bidirectional voltage translator
- ✓ Automatic direction detection without additional control pins
- ✓ Power supply: VCCA 1.2–3.6 V, VCCB 1.65–5.5 V
- ✓ Supports data transfer rates up to 100 Mbps
- ✓ OE pin for selective activation/deactivation of channels



The COM-VT-CH8 is a versatile 8-channel, bidirectional voltage translator that simplifies interfacing between digital systems with different logic levels. With automatic direction detection, it eliminates the need for control signals and enables transparent, hassle-free communication. This makes the module ideal for embedded systems, development setups, mixed-voltage prototypes, and educational projects where signals must flow in both directions.

It supports a supply voltage range of 1.2 V to 3.6 V on the A-side and 1.65 V to 5.5 V on the B-side, ensuring compatibility with nearly all common logic families. Developers can easily connect modern low-power MCUs, FPGAs, and sensors to legacy peripherals or controllers that require 5 V logic. With transfer rates up to 100 Mbps, the COM-VT-CH8 is well suited for fast interfaces such as SPI, UART, I²C, or GPIO signaling.

An integrated OE pin (Output Enable) allows all channels to be enabled or disabled simultaneously. Combined with Ioff support, it prevents unwanted reverse currents when a supply is powered down—an important feature in low-power and battery-driven systems.

For convenient integration, the module comes with two matching 10-pin headers included but not pre-soldered, giving users full flexibility: they can be soldered for breadboard use, or omitted for direct wiring. This adaptability makes the COM-VT-CH8 suitable for professional prototypes, lab use, and educational kits alike.

MAIN FEATURES

Chip	TXB0108PWR
Number of channels	8
VCCA (A-side supply voltage)	1.2 V - 3.6 V ($V_{CCA} < V_{CCB}$)
VCCB (B-side supply voltage)	1.65 V - 5.5 V ($V_{CCB} > V_{CCA}$)
Output Enable (OE)	Active high. The integrated pull-up ensures that the component is activated by default after switching on. Set OE to low to switch off the channels.

INPUT PARAMETERS

High-Level Input (V_{IH})	$\geq 0,65 \times V_{CCI}$
Low-Level Input (V_{IL})	$\leq 0,35 \times V_{CCI}$

OUTPUT PARAMETERS

High-Level Output (V_{OH}) min	$V_{CCA} - 0,4 \text{ V (A-side)} / V_{CCB} - 0,4 \text{ V (B-side)}$
Low-Level Output (V_{OL}) max	0,4 V

FURTHER INFORMATION

Weight	3 g
Dimensions	28 x 18.5 x 2.5 mm
Item number	COM-VT-CH8
Scope of delivery	Voltage translator board, 2x 10-pin-header
Customs tariff number	84718000
EAN	4250236830377

