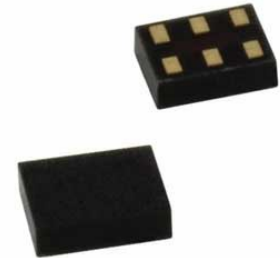


Voltage Level Translator, Bidirectional, 2 Inputs, 1 V to 5.5 V Supply, 1.5 ns Delay, UQFN-8

Manufacturers	ON Semiconductor, LLC
Package/Case	MicroPak-8
Product Type	Logic ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for FXWA9306L8X or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The FXWA9306 is a dual, bi-directional, I2C-bus and SMBus, voltage-level translator with an enable (OE) input that is operational from 1.0V to 3.6V (VCCA) and 1.8V to 5.5V (VCCB) without requiring a direction pin. As with standard I2C-bus systems, the pull-up resistors are required to provide the logic HIGH levels on the translator's bus. The FXWA9306 has a standard open-drain configuration of the I2C bus. The size of these pull-up resistors depends on the system, but each side of the translator must have a pull-up resistor. The device is designed to work with Standard-Mode, Fast-Mode, and Fast Mode Plus I2C-bus devices in addition to SMBus devices. The maximum frequency is dependent on the RC time constant, but generally supports up to 2MHz. All channels have the same electrical characteristics and there is a minimum deviation from one output to another in voltage or propagation delay. This is a benefit over discrete transistor voltage translation solutions, since the fabrication of the switch is symmetrical. The translator provides excellent ESD protection to lower voltage devices and at the same time protects less-ESD resistant devices.

Features

2-Bit Bi-Directional Translator for SDA and SCL Lines in Mixed-Mode I2C-Bus Applications

Standard-Mode, Fast-Mode, and Fast-Mode-Plus I2C-Bus and SMBus Compatible

Less than 1.5ns Maximum Propagation Delay to Accommodate Standard-Mode and Fast-Mode I2C-Bus Devices and Multiple Masters

Allows Voltage Level Translation Between:

1.0V VCCA and 1.8V, 2.5V, 3.3V, or 5V VCCB

1.2V VCCA and 1.8V, 2.5V, 3.3V, or 5V VCCB

1.8V VCCA and 3.3V or 5V VCCB

2.5V VCCA and 5V VCCB

3.3V VCCA and 5V VCCB

Supports I2C Clock Stretching and Multi-Master

Provides Bi-Directional Voltage Translation without Direction Pin

Low 3.5Ω On-State Connection Between Input and Output Ports; Provides Less Signal Distortion

Open-Drain I2C-Bus I/O Ports (A0, A1, B0, and B1)

5V-Tolerant I2C-Bus I/O Ports to Support Mixed-Mode Signal Operation

Lock-Up-Free Operation

High-Impedance A0, A1, B0, and B1 Pins for >

Packaged in 8-Terminal Leadless MicroPak™ (1.6mm x 1.6mm)

Flow-Through Pinout for Simpler Printed-Circuit Board Trace Routing

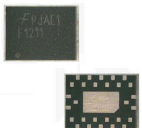
4kV HBM ESD (per JESD22-A114)

ESD Protection Exceeds:

1KV CDM (per JESD22-C101)

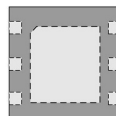
8kV HBM ESD (Pin to Pin, B Port)

Related Products



[FXMAR2102UMX](#)

ON Semiconductor, LLC
UMLP-8

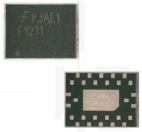


[FXL4TD245UMX](#)

ON Semiconductor, LLC
UMLP-16

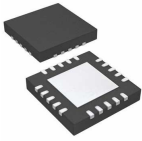
Application

ONSEMI



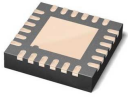
[FXMA2104UMX](#)

ON Semiconductor, LLC
UMLP-12



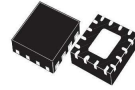
[FXLA108BOX](#)

ON Semiconductor, LLC
QFN-20



[FXL4245MPX](#)

ON Semiconductor, LLC
QFN24



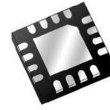
[FXLP4555MPX](#)

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[FXLA104UM12X](#)

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[FXL2SD106BOX](#)

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QFN-16