

IamaPLC: Signal level converters

PCA9306 I²C Voltage Level Translator

When the supply voltages are mismatched, the best option is to use a dedicated device to bridge them.

Allows voltage level translation between:

- 1.0V Vref (1) and 1.8V, 2.5V, 3.3V or 5V Vbias (ref) (2)
- 1.2V Vref (1) and 1.8V, 2.5V, 3.3V or 5V Vbias (ref) (2)
- 1.8V Vref (1) and 3.3V or 5V Vbias (ref) (2)
- 2.5V Vref (1) and 5V Vbias (ref) (2)
- 3.3V Vref (1) and 5V Vbias (ref) (2)

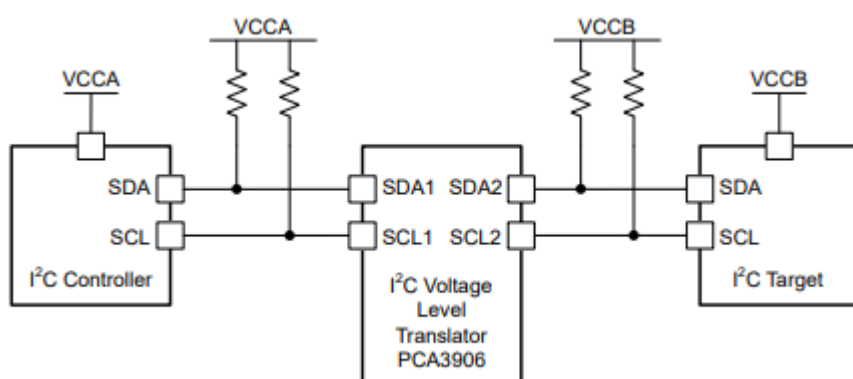


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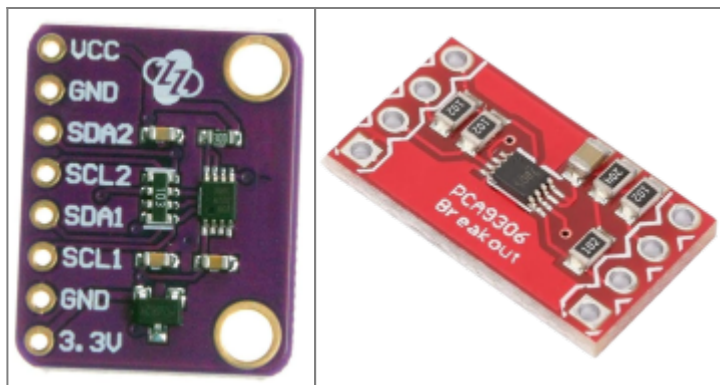
2026/02/14 22:38

The next image shows an example of using an I²C voltage-level translator to bridge communication between two different supply voltages. There are two sets of pullups, one for each voltage level. As a common voltage translator, the PCA9306 enables communication between different supply levels:



Application of PCA9306 for I²C communication: [here](#).

Several manufacturers produce compact modules using the PCA9306 IC. The picture below shows DollaTek's module (for example, you can find it on Amazon):



I2C topics on lamaPLC

Page	Date	Tags
• lamaPLC Communication: 1-Wire	2025/05/31 21:56	1-wire, communication, bus, microlan, i2c, uart, usart, ds18b20
• lamaPLC Communication: I²C	2025/09/23 19:25	i2c, i c, smbus, philips, bus, communication, arduino
• LamaPLC: AHT10 Modul	2026/03/21 19:20	communication, i2c, temperature, humidity, sensor, aht, aht 10, modul
• LamaPLC: AHT20 / BMP280 Modul	2026/02/15 20:33	bmp280, aht20, adafruit, temperature, humidity, pressure, sensor, arduino, code, i2c
• LamaPLC: APDS - Avago ALS and proximity detection sensors with I²C communication	2026/02/14 22:24	avago, apds-9900, apds-9930, apds-9960, als, proximity, detection, gesture recognition, gesture, i2c, communication, sensor, arduino, code
• lamaPLC: AS5600 Magnetic Induction Angle Measurement Sensor Module	2026/03/28 22:07	communication, i2c, as5600, as-5600, magnetic, induction, angle, sensor
• LamaPLC: BMP/BME Bosch Temperature/Humidity/Pressure sensors with I²C communication	2026/02/15 20:40	bme280, bme680, bmp180, bmp280, hw-611, hw611, bosch, temperature, humidity, pressure, sensor, arduino, i2c, communication, cjmcu
• LamaPLC: CJMCU-219/INA-219 breakout board/IC with I²C communication	2026/02/14 23:37	cjmcu-219, ina-219, ina219, breakout board, i2c, communication, sensor, voltage, current, arduino, code, cjmcu
• LamaPLC: CJMCU-3216 / AP-3216 integrated digital ambient light and proximity sensor module/IC with I²C communication	2026/02/14 22:40	cjmcu-3216, cjmcu, ap-3216, ap3216, ambient light, proximity, sensor, arduino, code, i2c, communication
• lamaPLC: CJMCU-811 CCS811 Gas Sensor (VOCs TVOC CO2)	2026/03/21 22:25	cjmcu-811, ccs811, gas, sensor, vocs, tvoc, eco2, co2, arduino, air quality metal oxide, mox, i2c
• LamaPLC: D6T Omron Non-Contact Thermal Sensors with I²C communication	2026/02/14 18:19	d6t, d6t-32l, d6t-44l, d6t-8l, d6t-1a, omron, non-contact, thermal, sensor, i2c, arduino, code
• LamaPLC: DPS Infineon Temperature/Pressure sensors with I2C communication	2026/02/14 18:11	dps310, infineon, temperature, pressure, sensor, arduino, i2c, communication, code
• lamaPLC: Energy, power, current, and voltage	2025/05/31 21:32	i2c, i c, communication, arduino, energy, power, current, sensor, ina226

• LamaPLC: ENS ScioSense Multi-gas sensors with I²C communication	2026/02/14 19:29	ens160 , sciosense , gas-quality , i2c , communication , sensor , arduino , code , eco2 , tvoc , aqi , indoor air quality , iaq , co2 , voc
• lamaPLC: ESP32 / ESP8266	2025/11/21 23:07	esp8266 , esp32 , esp32-c2 , esp32-c3 , esp32-c5 , esp32-c6 , esp32-c61 , esp32-h2 , esp32-s2 , esp32-s3 , esp32-p4 , espressif systems , communication , ethernet , ip , wi-fi , thread , zigbee , matter , homekit , bluetooth , mqtt , adc , spi , uart , i2c , i2s , rmt , pwm , usb , usb otg , twai gas , sensor , i2c , onewire , communication , mq-3 , mq-4 , mq-5 , mq-6 , mq-7 , mq-8 , mq-9 , mq-135 , gm-102b , gm-302b , gm-502b , gm-702b , alcohol , ch4 , natural gas , smoke , lng , co , co2 , lpg , h2 , iso-butane , nox , nh3 , benzene , town gas , formaldehyde , propane , humidity , temperature , voc , grv gas sens v2
• LamaPLC: Gas sensors	2023/07/01 15:29	stmicroelectronics , lsm303dlhc , i2c , lsm303 , sensor , gy-511 , 6dof , pololu , module , arduino
• lamaPLC: GY-511 6DOF sensor module	2026/03/22 00:26	ak8963 , gy-9250 , mpu-9250 , 9-axis , motion detection , magnetometer , communication , i c , i2c , spi
• LamaPLC: GY-9250 MPU-9250/6500 9-axis Attitude Sensor Board	2026/02/14 22:45	sht21 , htu21 , si7021 , gy-21 , gy-213v , hdc1080 , gy-213v-hdc1080 , cjmcu , cjmcu-1080 , texas instruments , temperature , humidity , sensor , i2c , communication , arduino , code
• LamaPLC: HDC Texas Instruments Temperature/humidity sensors with I²C communication	2026/02/14 22:09	i2c , 7-segment display , display , ht16k33 , arduino
• lamaPLC: HT16K33 display controller	2026/02/14 17:26	htu , htu31d , htu21d , htu20d , sht20 , htu20 , sht21 , htu21 , si7021 , gy-21 , gy-213v , hdc1080 , si702 , gy-20 , sht31 , htu31 , si7031 , gy-31 , te connectivity , temperature , humidity , i2c , communication , sensor , arduino , code
• LamaPLC: HTU TE Connectivity temperature/humidity sensors with I²C communication	2026/02/14 21:54	i2c , i c , communication , arduino , energy , power , current , monitor , sensor , ina219 , ina226 , ina228 , ina237 , ina238 , ina260 , ina3221 , ina
• lamaPLC: INA modules with Arduino libraries	2026/03/28 18:02	i2c , i c , communication , arduino , energy , power , current , monitor , sensor , ina226 , ina219 , ina
• lamaPLC: INA226 - current/voltage/power monitor with I²C communication	2026/02/14 23:58	communication , i2c , display , lcd , 1602 , 2004 , hd44780 , pcf8574 , pcf8574t , pcf8574at , arduino
• lamaPLC: LCD 1602/2004 with I²C communication	2026/02/14 17:27	max30102 , max30100 , heart rate click , sensor , communication , i2c , arduino , code
• LamaPLC: MAX30100/MAX30102 Heart Rate Click Sensor Module	2026/02/14 23:38	

- [lamaPLC: MCP23017 / MCP23S17 16-Bit I/O Expander with Serial Interface I²C / SPI](#) 2026/02/14 22:52 [communication, i2c, mcp23017, mcp23s17, spi, i o expander, serial, cjmcu-2317, cjmcu](#)
- [LamaPLC: Pixart PAJ7620U2 Gesture recognition sensors/module with I²C communication](#) 2026/02/14 22:23 [paj7620u2, gy-paj7620, pixart, gesture recognition, i2c, communication, sensor, arduino, code](#)
- [LamaPLC: SC16IS750 / SC16IS752: One or two serial \(UART\) ports from microcontroller via I²C or SPI communication](#) 2026/02/14 22:53 [cjmcu-750, cjmcu-752, cjmcu, nxp, sc16is750, sc16is752, uart, serial, i2c, spi, modul, converter, arduino, code](#)
- [LamaPLC: SGP Sensirion Gas-sensors with I²C communication](#) 2026/02/15 20:27 [sgp30, sgp40, sgp41, sensirion, gas-sensor, i2c, communication, sensor, arduino, code, eco2, voc, tvoc, indoor air quality, iaq, nox, hydrogen](#)
- [LamaPLC: SHT Sensirion Temperature/humidity sensor with I²C communication](#) 2026/02/15 20:29 [sht20, sht21, sht25, sht30, sht31, sht35, sht40, gy21, temperature, humidity, i2c, communication, sensor, arduino, code](#)
- [lamaPLC: Signal level converters](#) 2026/02/14 22:47 [pca9306, i2c, voltage, level, converter](#)
- [lamaPLC: TCA9548A \(HW617\); Low-Voltage 8-Channel I²C Switch Module](#) 2026/02/14 22:51 [tca9548a, hw617, i2c, switch, communication, expansion board, arduino](#)
- [lamaPLC: TM1637 7-segment display](#) 2026/02/14 17:26 [i2c, 7-segment display, display, tm1637, arduino](#)
- [LamaPLC: TOFnnnC STMicroelectronics Time-of-Flight \(ToF\) sensors with I²C communication](#) 2026/02/14 22:22 [tof050c, vl6180, tof200c, vl53l0x, tof400c, vl53l1x, stmicroelectronics, time-of-flight, tof, i2c, communication, sensor, arduino, code](#)
- [LamaPLC: VL53Lnn STMicroelectronics time-of-flight \(ToF\) laser-ranging sensors with I²C communication](#) 2026/02/14 22:21 [vl53l0x, vl53l1x, vl53l0 1xv2, gy-530, time-of-flight, tof, laser-ranging, i2c, communication, sensor, arduino, code](#)
- [LamaPLC: VL6180X STMicroelectronics Time-of-Flight \(ToF\) sensor with I²C communication](#) 2026/02/14 22:22 [vl6180x, stmicroelectronics, time-of-flight, tof, i2c, communication, sensor, arduino, code](#)
- [Magnetic angle sensors](#) 2026/03/05 20:19 [magnetic angle sensor, magnetic flux, sensor, spi, i2c, pwm, communication, modul, as5047p, as5600, mt6701, mt6816, mt6835, tle5012b, amr, gmr, tmr, anisotropic magnetoresistive](#)
- [SSH1106/SSD1306 OLED Display with I²C communication](#) 2026/02/14 17:27 [i2c, oled, display, ssd1306, sh1106, ssh1106, arduino, cmos](#)

[PCA9306, I2C, Voltage, Level, converter](#)

This page has been accessed for: Today: 2, Until now: 75

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Last update: **2026/02/14 22:47**

