# NCA95XX Evaluation Board

The NCA95XX family of devices provides 16 bits of General-Purpose Input/Output (GPIO) expansion for I²C bus/SMBus applications. The device features a wide supply range of 1.65 V to 5.5 V and additionally includes an output interrupt mechanism and default pull-up resistors on GPIOs. NCA95XX EVB is compatible with Arduino™ UNO Rev3 ecosystem and the product page includes demonstration software for the NCA95XX EVB. The EVB can also be used with other microcontroller platforms via the I²C interface pins on the header pins.

Features:

› NCA95XX Device

› Input voltage = 1.6 V to 5.5 V

› I²C to parallel port expansion

› # GPIOs = 2 ports with 8 bits

› Current drive capability = +/- 25 mA

› I²C interface, FastMode 400 kHz

› Open-drain active-low interrupt output

› On board Features:
  - Arduino™ compatible header connection
  - LED output indicators
  - Compatible with Arduino™ UNO ecosystem
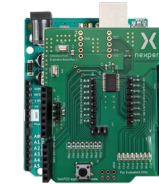
Pinout
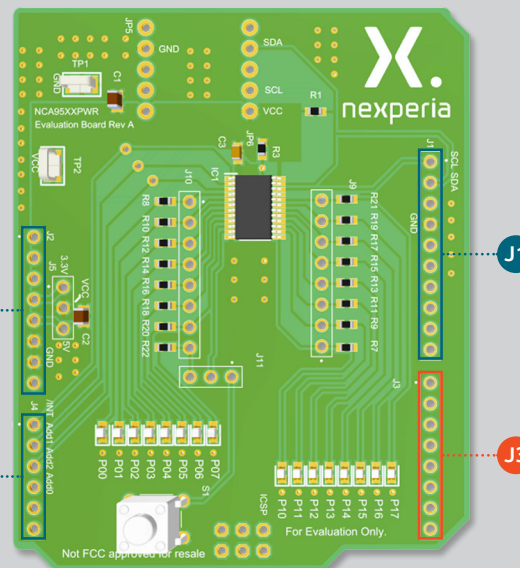
J1	Pin	J2	Pin	J3	Pin	J4	Pin
SCL	1	3.3 V	4	J3 header has **no connections** for NCA95XX device		/INT	1
SDA	2	5 V	5			Add1	2
GND	4	GND	6			Add2	3
		GND	7			Add0	4

Steps

1 Connect NCA95XX EVB to Arduino™ UNO Rev3

2 Connect USB cable to Arduino™ UNO and PC

3 Download Arduino™ 1.8 or later at https://www.arduino.cc/en/software

1. Install and invoke programs at startup menu.

2. Select the correct board* (Arduino™ Uno) and Port by clicking into "Tools>Board" and "Tools>Port". Port info can be found through Windows Device Manager.

*When using Serial Monitor select correct baud rate.

4 Upload and Run the Arduino™ sketch

› Program "nca95xx_demo.ino" writes to PORT 1 to flash LEDs back and forth. PORT O is continuously read back and byte value is updated through Arduino IDE. Serial Monitor is used to monitor PORT O.

› Program "nca95xx_main.ino" interfaces with Labview GUI. This complete GUI program is further explained in the NCA95XX EVB User's Guide.

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