

TLE9278BQX Evaluation Board

MCP+ SBC Family

Z8F65327770

Getting Started

Rev 1.0, April 2019



Revision History: 1

Previous Version: none

Page	Subjects (major changes since last revision)
1.0	Initial Release, All.

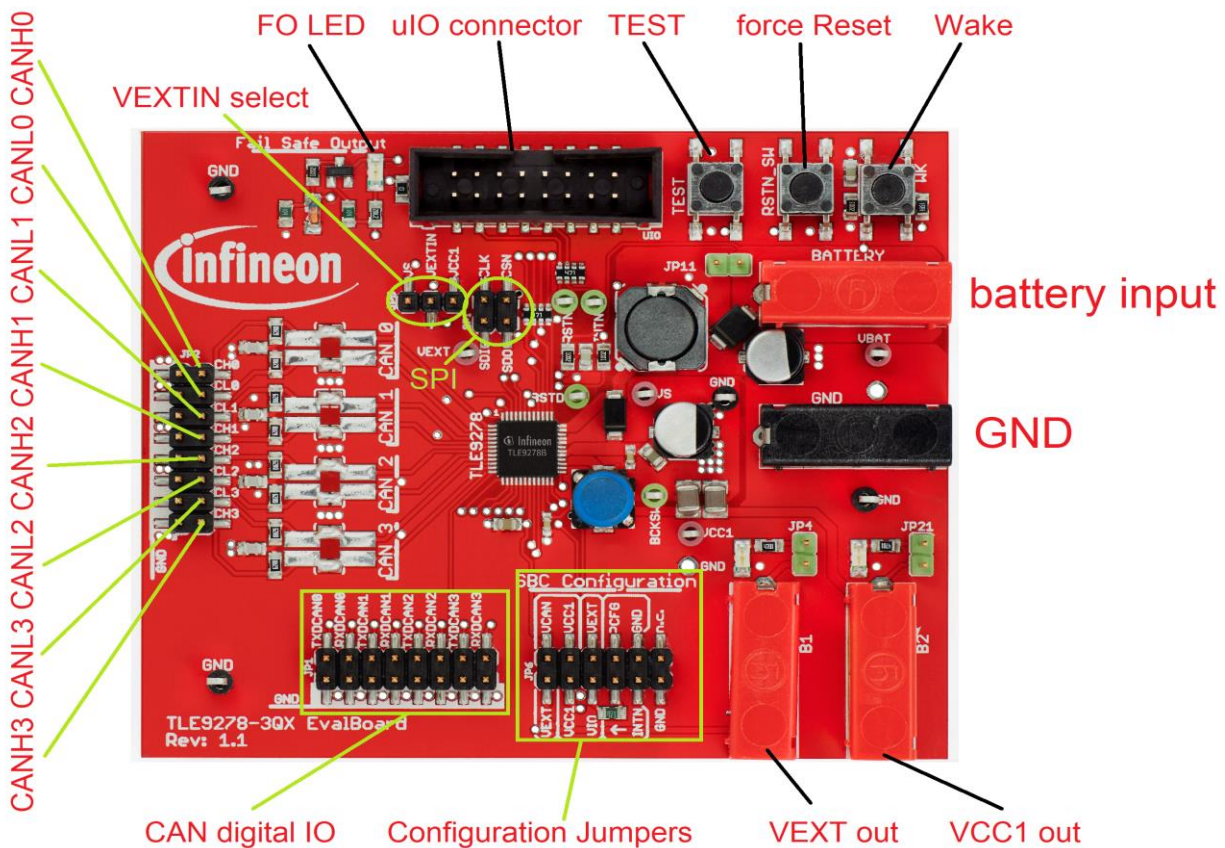
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Schematic and Layout can be seen on the last pages of this PDF document.

1. Evaluation Board Overview

There are 4 banana sockets, 3 LEDs, three buttons, one connector for the μ IO stick and a set of headers for jumper configuration on the evaluation board. The functionalities will be explained in the next chapters. The distribution of these elements on the board can be observed in the following figure:



2. Banana Sockets

The SBC is usually supplied through the battery input and GND banana sockets.

The VCC1 output (5 V or 3.3 V, depending on the SBC's version) and VEXT (voltage dependent on configuration) banana sockets provide the regulated voltages from the SBC. The voltages VCC1 and VEXT are used to supply the VCC1 and VEXT supply indication LEDs which can be disconnected via the jumpers directly next to the banana outputs of VCC1 and VEXT.

3. Buttons

In the upper right corner there are three buttons.

- **Test Button** for enabling test mode (press during SBC Init-Mode when sending arbitrary SPI command)
- **Reset Force** button pressing connects RO to GND to force low signal
- **Wake** forces a voltage level transition at the WK pin to trigger a wake-up externally

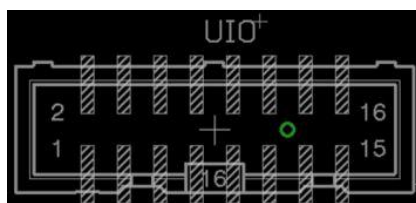
4. LEDs

In the upper left corner is one LED to indicate the state of the Fail-Output. There are also two indication LEDs for the status of VCC1 and VEXT (see behind the banana sockets for VCC1 and VEXT) which can be also disconnected via the jumpers directly next to the banana connectors of VCC1 and VEXT.

5. Connectors

5.1. μ IO Connector

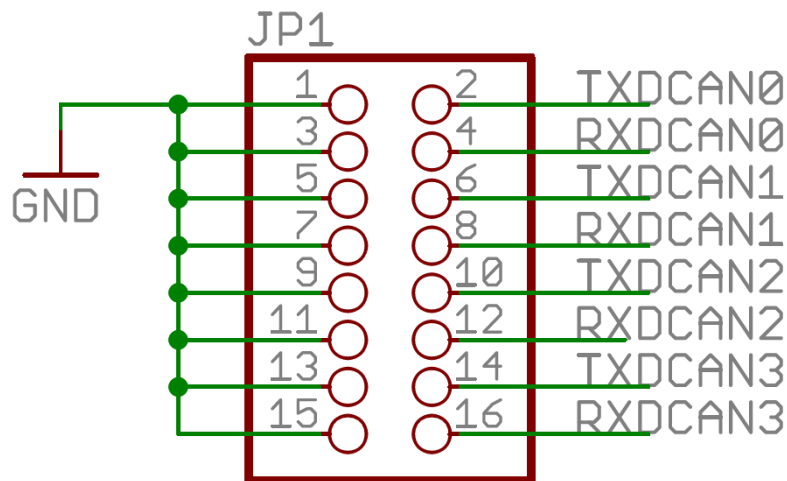
The μ IO Connector is used for connecting to the μ IO stick, but can be also used to access the uC interfacing pins. The pin distribution of the connector is shown in the following figure:



Pin	Functionality	Pin	Functionality
1	NC	2	GND
3	NC	4	NC
5	NC	6	VS_μIO
7	NC	8	INTN
9	CSN	10	NC
11	CLK	12	FO_UC
13	SDO	14	RSTN
15	SDI	16	ADC_μIO

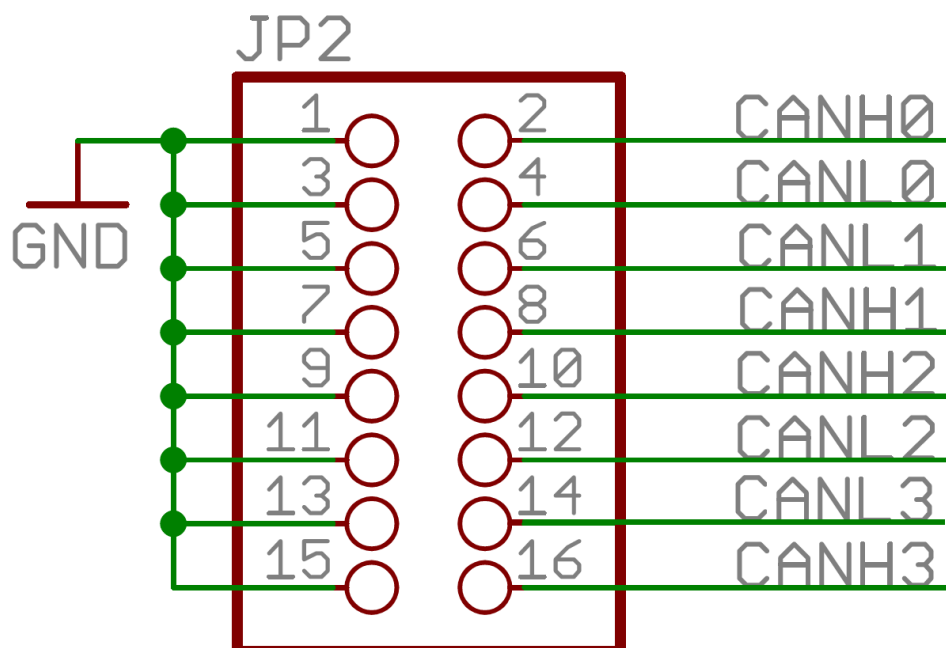
5.2. CAN digital IO Connectors

This connector can be used to access the RXD and TXD pins of the appropriate CAN transceivers.



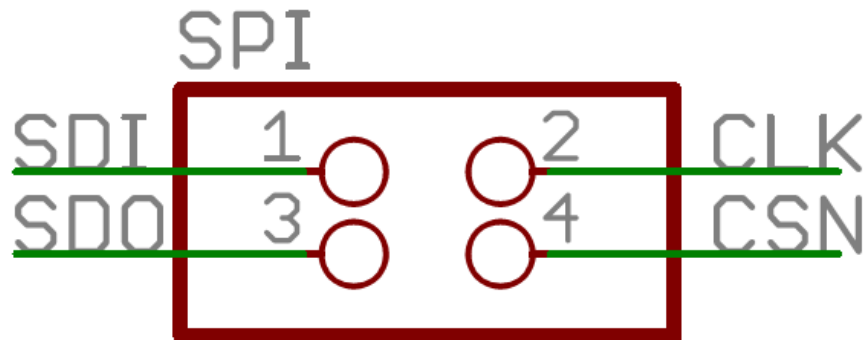
5.3. Transceiver Connectors

Those connectors can be used to connect to the transceiver outputs CAN0 – CAN3.



5.4. SPI connector

This connector can be used to access the SPI signals directly with a microcontroller or to analyze the SPI logic signals on the bus if μ IO stick is connected.

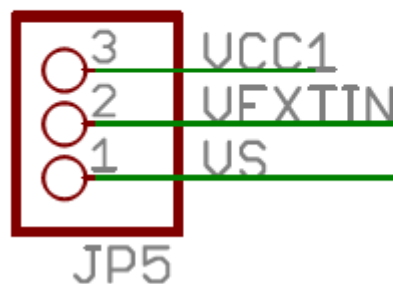


6. Jumper Configurations

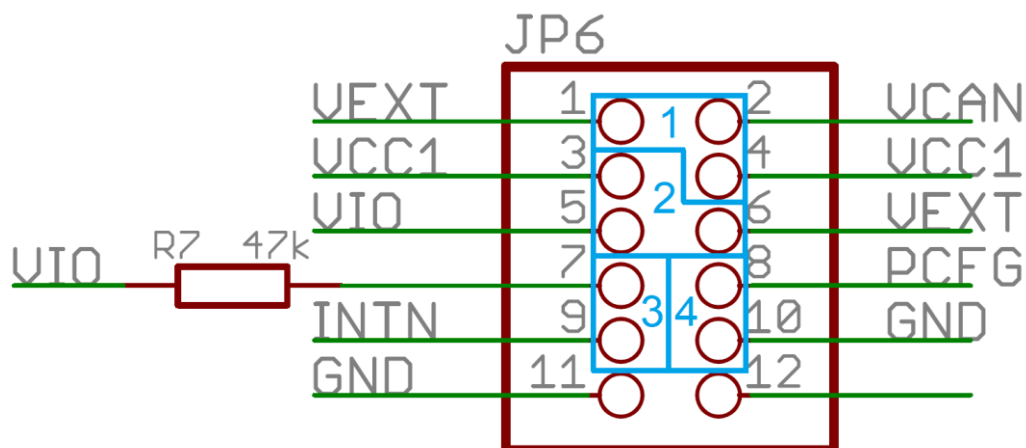
6.1. VEXTIN selection jumper

The input supply of the external voltage regulator can be selected here being either VS or VCC1.

VEXT supply Slection



6.2. SBC configuration jumper



- Jumper 1: Select VCAN supply (VCC1 out or VEXT out)
- Jumper 2: Select VIO supply (VCC1 out or VEXT out)
- Jumper 3: INTN enable pull-up to VIO (CFG1 state)
- Jumper 4: PCFG <-> GND bridge (IO supply voltage config)

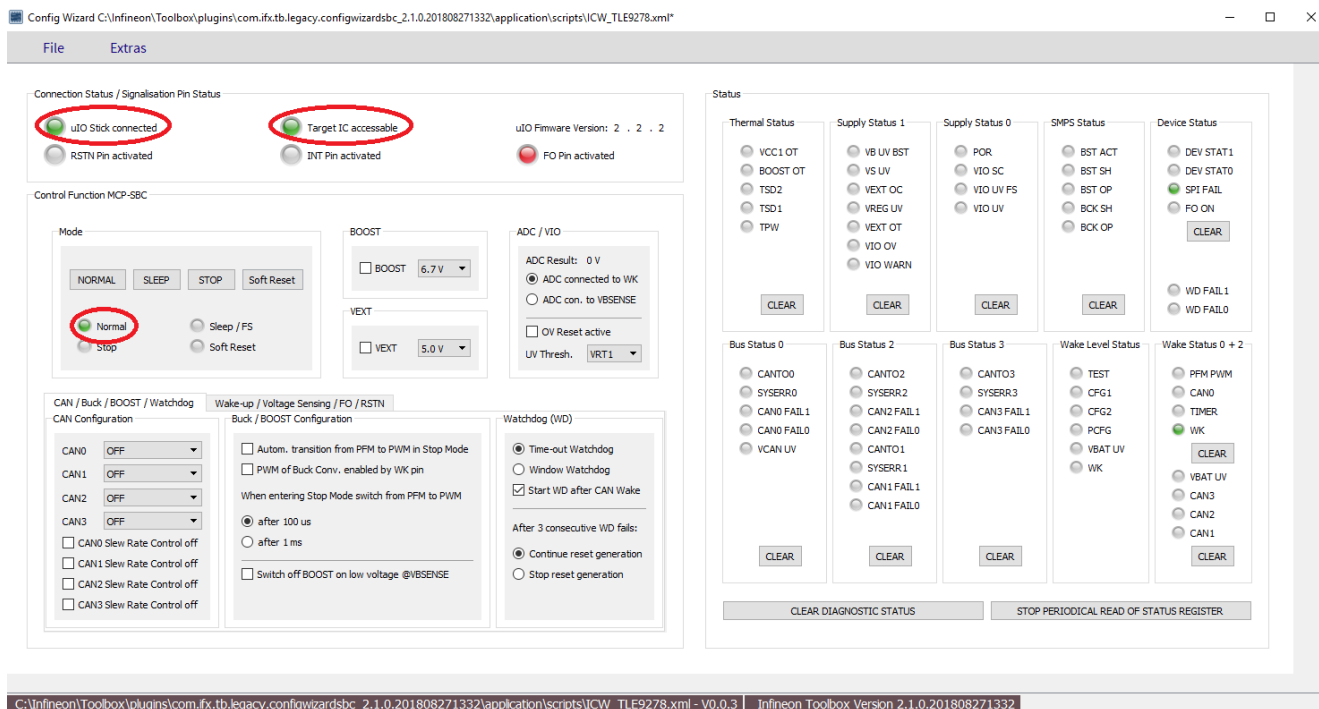
7 Usage of ConfigWizard

Please connect your μ IO stick to the μ IO interface header and supply the evaluation board with e.g. 12V.

After this, please open “Config Wizard for SBC” inside Infineon Toolbox and select “TLE9278”. For using the μ IO stick correctly, please refer to the μ IO stick user manual which can be also downloaded under <http://www.infineon.com/SBC>



As soon as the user interface has opened, the SBC should be in SBC normal mode and SPI should be accessible. This is indicated by green status flags.



All functionalities of the SBC are live controllable by just clicking or selecting the appropriate functions.

8 Additional Information

For further information you may contact <http://www.infineon.com/SBC> or your regional FAE.

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