WEINZIERL

KNX BAOS Module 822

How to change operating voltage from 3.3 V to 5.0 V

Defaults

By default, our KNX BAOS Module 822 comes with:

- Output VCC (3.3 V)
- UART TX (output 3.3 V)
- UART RX (input 3.3 V)
- Programming key
  U_{Key} (input 3.3 V)
- Programming LED
  U_{LED} = (output 3.3 V, internal resistor)

The voltage level of the module can be changed by moving a resistor.

Change Instruction

Please disconnect the device completely.
Never install 2 resistors simultaneously.
To change the operating voltage to 5 V, resistor R6 has to be moved to position R5 (both size 0603).
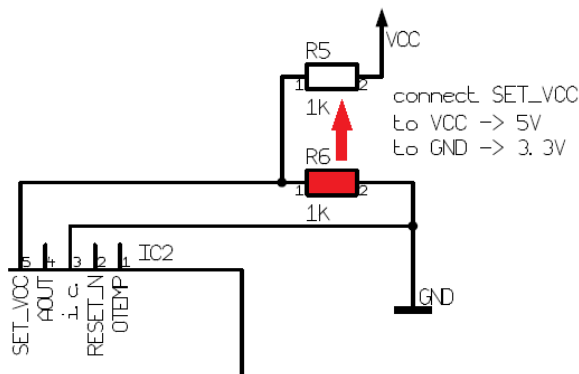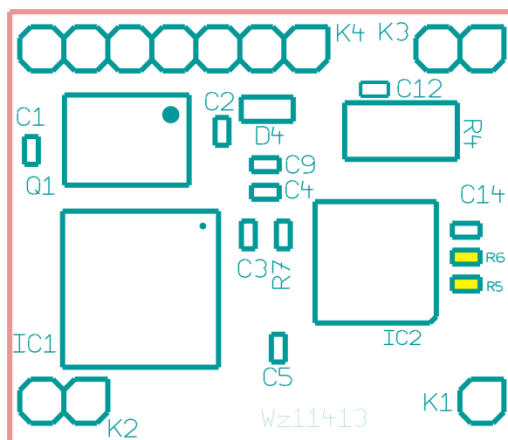

Fig. 1: Wiring diagram of R5 and R6

Fig. 2: Module sketch

By using a SMD soldering unit, the 1k resistor can be moved from position R6 to position R5.
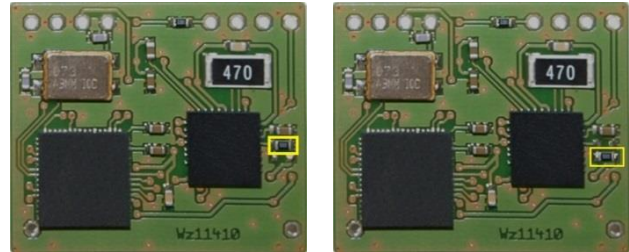Normally there is no need to use a new 1k SMD resistor, the present one can be re-used.

Fig. 3: 822 Module 3.3 V (left), 5 V (right)

For higher volumes the KNX BAOS Module 822 is available directly as 5 V version. Please contact our sales department for further information.

Technical data after modification

Power supply

- Output: 5 V and 20 V
- Total up to 140 mW
- Bus current consumption 3,5 mA to 15 mA

Pinning

- KNX Bus – (GND)
- KNX Bus +
- Programming key
  U_{Key} = 5 V
  $R_{Pull-Up}$ = 10 kΩ (integrated)
- Programming LED
  U_{LED} = 5 V
  R_{LED} = 2.2 kΩ (integrated)
- GND
- Output V20 (20 V)
- Output VCC (5 V)
- UART TX (output 5 V)
- UART RX (input 5 V)

Protocol

- UART (19,2 kbit/s, 8 data bits, parity even, 1 stop bit)
- Frame Format: FT1.2
- Telegrams: EMI2
- Data points: BAOS Binary V1

KNX

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