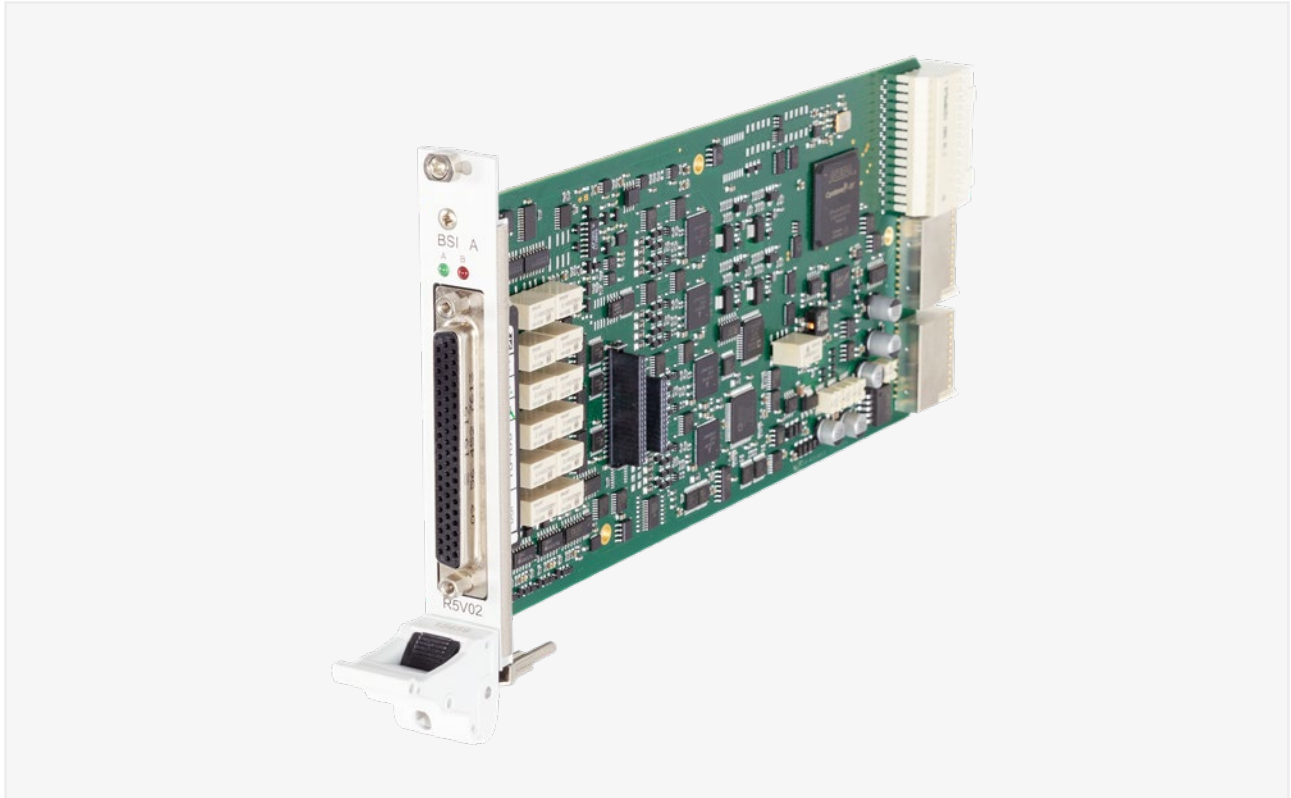


UTB (BSI) - Universal Tester Board

Efficient test system for digital sensors



Applications

- ✓ Efficient System Level Test (SLT) of digital sensors
- ✓ Sensor characterization testing
- ✓ Sensor production final test

Selected Data

- ✓ Supply voltage range: $-2\text{ V} \dots +20(25)^{1)}\text{ V}$
- ✓ Supply current:
up to $\pm 50(20)^{1)}\text{ mA/source}$
- ✓ 12.5 ns timing resolution
- ✓ Slew Rate Control ($1\text{ V}/\mu\text{s} \dots 8.3\text{ V/ms}$)

Features

- ✓ Fast FPGA for FW and host interface IP cores
- ✓ Support for SPI, I²C, mipi™ I3C, TDM, UART, JTAG, SENT, PSI5, CAN FD²⁾, LIN, ZACwire™
- ✓ 16 freely programmable IO pins
- ✓ 4 independent power sources
- ✓ External trigger functionality
- ✓ Fast LVDS backplane interface
- ✓ Special Function interface for custom hardware extension



Technical Data

| | |
|------------------------------|--|
| HW interface | <ul style="list-style-type: none">• DSUB (HD62) |
| Supported digital interfaces | <ul style="list-style-type: none">• SPI (up to 10 MHz)• I²C (0.1 Mbit/s, 0,4 Mbit/s, 1.0 Mbit/s)• CAN-FD²⁾ (ISO 11898, 10 kBit/s...5 Mbit/s)• SENT (Nibble time 3 μs...90 μs)• PS15 (83.3 kBit/s; 125 kBit/s; 189 kBit/s)• JTAG• LIN• ZACwire™• mipi™ I3C• TDM• UART |

Electrical Parameters

| | |
|----------------------------|---|
| Supply voltage range | -2 V...+20 V (25 V) ¹⁾ (± 0.05 %) |
| Supply current ranges | 50 mA (± 0.2 %) 2 mA (± 0.2 %) 200 μ A (± 0.2 %) 20 μ A (± 0.2 %) ²⁾ 5 μ A (± 0.2 %) ²⁾ |
| Max. sensor supply current | 50 mA/source |
| Voltage measurement ranges | 25 V (± 0.01 % of FSR) 8 V (8 V...1 V: ± 0.01 % of FSR, <1 V ± 100 μ V) |
| Current measurement ranges | 50 mA (± 0.05 % of FSR) 2 mA (± 0.05 % of FSR) 200 μ A (± 0.05 % of FSR) 20 μ A (± 0.05 % of FSR) ²⁾ 5 μ A (± 0.1 % of FSR) ²⁾ |

1) Only UTB Power Source #4

2) Only UTB HW Variant R5V02

Accessories (optional)

- BSI Evaluation Board
- BSI Engineering Board
- BSI Cable