

MT3923

3U Digital Input/Output

- 32 digital inputs (24V)
- 32 digital outputs (24V, 0,5A)
- 8 digital inputs/outputs (TTL)
- USB 2.0



The MT3923 is standard 3U single-width (4HP) module.

The MT3923 has 32 24V digital inputs isolated from the computer system by optocoupler galvanically. The inputs are also potential free to each other in groups of four inputs. A high performance of input circuit ensures a defined switching point and polarization protection against confusing the pole. All inputs have a common electronic debounce circuit with a debounce time freely programmable.

The MT3923 has 32 digital high side switches with galvanic isolation from the computer system by optocoupler.

The outputs are also isolated against each other in groups of four outputs. All outputs are protected against shortcircuit and thermal overload. The output drivers are capable of driving 0.5A per channel continuous. A hardware watchdog clears all outputs in case of trigger fail.

The MT3923 has 8 digital TTL inputs/outputs.

USB 2.0 are placed on the board in addition.

All I/O available on the J2 rear I/O connector.

**Embedded
Solutions**

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Technical Data

I/O

- USB
 - USB 2.0 port on the J2 rear I/O connector
- 24 V signal voltage on the J2 rear I/O connector
 - 32 digital inputs/outputs
 - Optocoupler for galvanic isolation
 - All inputs isolated to each other in groups of four inputs
 - Programmable electronic debounce circuit (7 μ s to 440ms)
 - Current per output 0.5A
 - Outputs are short-circuit protected
 - Outputs are isolated to each other in groups of four outputs
 - Outputs protected against thermal overload
- TTL-level signal voltage on the J2 rear I/O connector
 - 8 digital input/output

MCU

- STM32F207
 - 32-bit Cortex M3
 - Operating Frequency: 120 MHz
 - Flash: 1 Mbytes

Miscellaneous

- CompactPCI[®] J1 connector are assembled for power supply
- CompactPCI[®] J2 rear I/O connector for digital I/O and USB

Electrical Specifications

- Supply voltage/power consumption:
 - +5V (-3%/+5%), 8.5mA max.
 - +3.3V (-3%/+5%), 250 mA max.

Mechanical Specifications

- Dimensions: conforming to CompactPCI[®] specification for 3U 4HP boards
- Weight: 200g

Environmental Specifications

- Temperature range (operation): -40..+85°C
- Temperature range (storage): -40..+85°C
- Relative humidity (operation): max. 95% non-condensing
- Relative humidity (storage): max. 95% non-condensing
- Altitude: -300m to + 3,000m
- Shock: 15g/11ms
- Bump: 10g/16ms
- Vibration (sinusoidal): 2g/10..200Hz
- Conformal coating on request

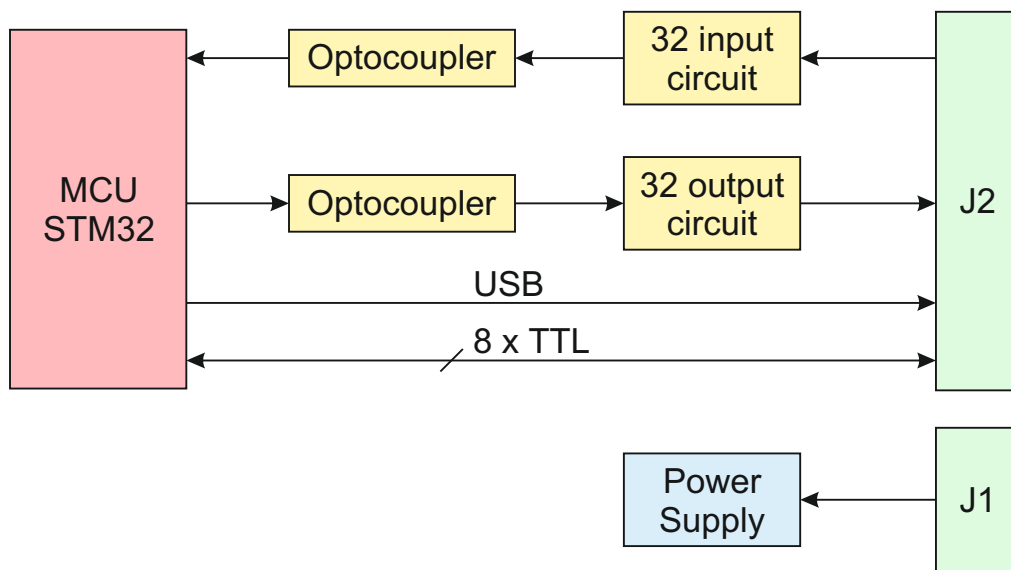
MTBF

- 300 000 h @ 40°C (derived from MIL-HDBK-217F)

Software Support

- Windows[®] (Windows[®] XP, Windows[®] 7), Linux

Block Diagram



Contact Information

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