



SIMATIC IOT2050; 2x Gbit Ethernet RJ45; Display port; 2x USB2.0; 16 GB eMMC; SD card slot; 24 V DC industrial power supply

| General information | |
|--|--------------------------------------|
| Product type designation | IOT2050 |
| Installation type/mounting | |
| Design | IoT Gateway, built-in unit |
| Supply voltage | |
| Type of supply voltage | 12/24 V DC |
| Mains buffering | |
| <ul style="list-style-type: none"> Mains/voltage failure stored energy time | 5 ms |
| Processor | |
| Processor type | ARM TI AM6548 HS |
| Graphic | |
| Graphics controller | Integrated |
| Drives | |
| Slot for drives | 1x microSD card slot |
| Memory | |
| Type of memory | DDR4 |
| Main memory | 2 GB RAM |
| Capacity of main memory, max. | 2 Gbyte |
| Hardware configuration | |
| Slots | |
| <ul style="list-style-type: none"> free slots | 1x Arduino, 1x mPCIe |
| Digital inputs | |
| Number of digital inputs | 20 |
| Input voltage | |
| <ul style="list-style-type: none"> Type of input voltage | DC |
| Digital outputs | |
| Number of digital outputs | 20 |
| Output voltage | |
| <ul style="list-style-type: none"> Type of output voltage permissible voltage at output, min. permissible voltage at output, max. | DC 3.3 V 5 V |
| Analog inputs | |
| Number of analog inputs | 6 |
| Input ranges | |
| <ul style="list-style-type: none"> Voltage | Yes; 0 ... 5 V |
| Interfaces | |
| PROFIBUS/MPI | can be implemented with plug-in card |
| Number of industrial Ethernet interfaces | 2 |
| Number of PROFINET interfaces | 2 |
| USB port | 2x USB 2.0 |

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| Connection for keyboard/mouse | USB |
| serial interface | 1x COM (1x RS 232 / 422 / 485) |
| Video interfaces | |
| • Graphics interface | 1x DisplayPort |
| Industrial Ethernet | |
| • Industrial Ethernet interface | 2x Ethernet (RJ45) |
| — 100 Mbps | Yes |
| — 1000 Mbps | Yes |
| Integrated Functions | |
| Monitoring functions | |
| • Temperature monitoring | Yes |
| • Watchdog | Yes |
| • Status LEDs | Yes |
| EMC | |
| Interference immunity against discharge of static electricity | |
| • Interference immunity against discharge of static electricity | ±4 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2 |
| Interference immunity against high-frequency electromagnetic fields | |
| • Interference immunity against high frequency radiation | 10 V/m for 80 ... 1 000 MHz, 80 % AM according to IEC 61000-4-3; 3 V/m for 1.4 ... 6 GHz, 80 % AM according to IEC 61000-4-3 |
| Interference immunity to cable-borne interference | |
| • Interference immunity on supply cables | ±2 kV (according to IEC 61000-4-4, burst); ±1 kV (according to IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC 61000-4-5, surge pulse/line to ground) |
| • Interference immunity on signal cables >30m | ±2 kV acc. to IEC 61000-4-5, surge, length > 30 m |
| • Interference immunity on signal cables < 30m | ±1 kV acc. to IEC 61000-4-4, Burst |
| Interference immunity against voltage surge | |
| • asymmetric interference | ±2 kV acc. to IEC 61000-4-5, surge asymmetric |
| • symmetric interference | ±1 kV acc. to IEC 61000-4-5, surge symmetric |
| Degree and class of protection | |
| IP degree of protection | IP20 |
| IP (all-round) | IP20 |
| Standards, approvals, certificates | |
| CE mark | Yes |
| UL approval | Yes |
| cULus | Yes |
| RCM (formerly C-TICK) | Yes |
| KC approval | Yes |
| EAC (formerly Gost-R) | Yes |
| FCC | Yes |
| EMC | CE, EN 61000-6-4:2007 +A1:2011, EN 61000-6-2:2005, CE, EN IEC 61000-6-4:2019, EN IEC 61000-6-2:2019 |
| Ambient conditions | |
| Ambient temperature during storage/transportation | |
| • min. | -20 °C |
| • max. | 70 °C |
| Altitude during operation relating to sea level | |
| • Installation altitude above sea level, max. | 2 000 m |
| Relative humidity | |
| • Relative humidity | 5 ... 85 % at 30 °C, no condensation |
| • Operation, max. | 85 % |
| Vibrations | |
| • Vibration resistance during operation acc. to IEC 60068-2-6 | tested according to IEC 60068-2-6: 10 cycles; 5 to 8.4 Hz: deflection 3.5 mm; 8.4 to 200 Hz: acceleration 9.8 m/s ² |
| Shock testing | |
| • Shock load during operation | Tested according to IEC 60068-2-27: 150 m/s ² , 11 ms |
| Operating systems | |
| pre-installed operating system | SIMATIC Industrial OS |
| without operating system | No |
| Mechanics/material | |
| Enclosure material (front) | plastic |
| • Plastic | Yes |

- Aluminum
- Stainless steel
- Glass

Yes
Yes
No

Dimensions

| | |
|--------|--------|
| Width | 37 mm |
| Height | 142 mm |
| Depth | 100 mm |

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