

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

• 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
<b>Hardware configuration</b>	
<b>Slots</b>	
• free slots	1x Arduino, 1x mPCle
<b>Digital inputs</b>	
Number of digital inputs	20
<b>Input voltage</b>	
• Type of input voltage	DC
<b>Digital outputs</b>	
Number of digital outputs	20
<b>Output voltage</b>	
• Type of output voltage	DC
• permissible voltage at output, min.	3.3 V
• permissible voltage at output, max.	5 V
<b>Analog inputs</b>	
Number of analog inputs	6
<b>Input ranges</b>	
• Voltage	Yes; 0 ... 5 V
<b>Interfaces</b>	
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
Connection for keyboard/mouse	USB
serial interface	1x COM (1x RS 232 / 422 / 485)
<b>Video interfaces</b>	
• Graphics interface	1x DisplayPort
<b>Industrial Ethernet</b>	
• Industrial Ethernet interface	2x Ethernet (RJ45)
— 100 Mbps	Yes
— 1000 Mbps	Yes
<b>Integrated Functions</b>	
<b>Monitoring functions</b>	
• Temperature monitoring	Yes
• Watchdog	Yes
• Status LEDs	Yes
<b>EMC</b>	
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
<b>Interference immunity against high-frequency electromagnetic fields</b>	
• 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
<b>Interference immunity to cable-borne interference</b>	
• 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
<b>Interference immunity against voltage surge</b>	
• asymmetric interference	±2 kV acc. to IEC 61000-4-5, surge asymmetric
• symmetric interference	±1 kV acc. to IEC 61000-4-5, surge symmetric
<b>Degree and class of protection</b>	
IP degree of protection	IP20
IP (all-round)	IP20
<b>Standards, approvals, certificates</b>	
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
<b>Ambient conditions</b>	
<b>Ambient temperature during storage/transportation</b>	
• min.	-20 °C
• max.	70 °C
<b>Altitude during operation relating to sea level</b>	
• Installation altitude above sea level, max.	2 000 m
<b>Relative humidity</b>	
• Relative humidity	5 ... 85 % at 30 °C, no condensation
• Operation, max.	85 %
<b>Vibrations</b>	
• 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 <sup>2</sup>
<b>Shock testing</b>	
• Shock load during operation	Tested according to IEC 60068-2-27: 150 m/s <sup>2</sup> , 11 ms
<b>Operating systems</b>	

pre-installed operating system	SIMATIC Industrial OS
without operating system	No

## Mechanics/material

Enclosure material (front)	plastic
• Plastic	Yes
• Aluminum	Yes
• Stainless steel	Yes
• Glass	No

## Dimensions

Width	37 mm
Height	142 mm
Depth	100 mm

**last modified:** 10/29/2020