



SIMATIC IOT2050, 2x Gbit Ethernet RJ45; Display port; 2x USB2.0, 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"> <li>Mains/voltage failure stored energy time</li> </ul>	5 ms
Processor	
Processor type	ARM TI AM6528 GP
Graphic	
Graphics controller	Integrated
Graphics card	Yes
Drives	
Slot for drives	1x microSD card slot
Memory	
Type of memory	DDR4
Main memory	1 GB RAM
Capacity of main memory, max.	1 Gbyte
Hardware configuration	
Slots	
<ul style="list-style-type: none"> <li>free slots</li> </ul>	1x Arduino, 1x mPCIe
Digital inputs	
Number of digital inputs	20
Input voltage	
<ul style="list-style-type: none"> <li>Type of input voltage</li> </ul>	DC
Digital outputs	
Number of digital outputs	20
Output voltage	
<ul style="list-style-type: none"> <li>Type of output voltage</li> <li>permissible voltage at output, min.</li> <li>permissible voltage at output, max.</li> </ul>	DC 3.3 V 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
Connection for keyboard/mouse	USB
serial interface version	1x COM (1x RS 232 / 422 / 485)
Video interfaces	

• Graphics interface	1x DisplayPort
<b>Industrial Ethernet</b>	
• Industrial Ethernet interface	2x Ethernet (RJ45)
— 100 Mbps	Yes
— 1000 Mbps	Yes
<b>Interrupts/diagnostics/status information</b>	
LED status display	Yes
<b>Integrated Functions</b>	
<b>Monitoring functions</b>	
• Temperature monitoring	Yes
• Watchdog	Yes
<b>EMC</b>	
<b>Interference immunity against discharge of static electricity</b>	
• 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>Ecological footprint</b>	
• environmental product declaration	Yes
<b>Global warming potential</b>	
— global warming potential, (total) [CO2 eq]	196 kg
— global warming potential, (during production) [CO2 eq]	18.7 kg
— global warming potential, (during operation) [CO2 eq]	179 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-2.28 kg
<b>Ambient conditions</b>	
<b>Ambient temperature during operation</b>	
• min.	0 °C
• max.	50 °C
<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>

#### Shock testing

- Shock load during operation

Tested according to IEC 60068-2-27: 150 m/s<sup>2</sup>, 11 ms

#### Operating systems

pre-installed operating system

No

without operating system

Yes

#### Mechanics/material

Enclosure material (front)

plastic

- Plastic
- Aluminum
- Stainless steel
- Glass

Yes  
Yes  
Yes  
No

#### Dimensions

Width

37 mm

Height

142 mm

Depth

100 mm

#### Classifications

	Version	Classification
eClass	14	19-20-01-02
eClass	12	19-20-01-02
eClass	9.1	19-20-01-02
eClass	9	19-20-01-02
eClass	8	19-20-01-02
eClass	7.1	19-20-01-02
eClass	6	19-20-01-02
ETIM	9	EC001413
ETIM	8	EC001413
ETIM	7	EC001413
IDEA	4	6606
UNSPSC	15	43-21-15-06

#### Approvals / Certificates

General Product Approval

EMV

[Manufacturer Declaration](#)



[KC](#)

#### Environment



last modified:

4/3/2025