

SIMATIC IOT2050; 1x M.2; 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; 2x M.2 (B-key & E-Key)
Digital inputs	
Number of digital inputs	20
Input voltage	
<ul style="list-style-type: none"> Type of input voltage 	DC
Analog inputs	
Input ranges	
<ul style="list-style-type: none"> Voltage 	Yes; 0 ... 5 V
Interfaces	
Number of PROFINET interfaces	2
USB port	2x USB
Connection for keyboard/mouse	USB
serial interface	1x COM (1x RS 232 / 422 / 485)
Multimedia	
<ul style="list-style-type: none"> Audio In/Out Microphone In 	No No
Video interfaces	
<ul style="list-style-type: none"> Graphics interface 	1x DisplayPort
Industrial Ethernet	
<ul style="list-style-type: none"> Industrial Ethernet interface <ul style="list-style-type: none"> — 100 Mbps — 1000 Mbps 	2x Ethernet (RJ45) Yes Yes
Integrated Functions	
Monitoring functions	
<ul style="list-style-type: none"> Temperature monitoring Watchdog Status LEDs 	Yes Yes Yes
EMC	
Interference immunity against discharge of static electricity	
<ul style="list-style-type: none"> Interference immunity against discharge of static 	±4 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC

electricity	61000-4-2
Interference immunity against high-frequency electromagnetic fields	
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> Interference immunity on supply cables Interference immunity on signal cables >30m Interference immunity on signal cables < 30m 	±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) ±2 kV acc. to IEC 61000-4-5, surge, length > 30 m ±1 kV acc. to IEC 61000-4-4, Burst
Interference immunity against voltage surge	
<ul style="list-style-type: none"> asymmetric interference symmetric interference 	±2 kV acc. to IEC 61000-4-5, surge asymmetric ±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 operation	
<ul style="list-style-type: none"> min. max. 	0 °C 50 °C
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> min. max. 	-20 °C 70 °C
Altitude during operation relating to sea level	
<ul style="list-style-type: none"> Installation altitude above sea level, max. 	2 000 m
Relative humidity	
<ul style="list-style-type: none"> Relative humidity Operation, max. 	5 ... 85 % at 30 °C, no condensation 85 %
Vibrations	
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> Plastic Aluminum Stainless steel Glass 	Yes Yes Yes No
Dimensions	
Width	37 mm
Height	142 mm
Depth	100 mm

last modified: 8/11/2023 