SIEMENS

Data sheet 6ES7647-0BA00-1YA2



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
Graphics card	Yes
Drives	
Slot for drives	1x microSD card slot
Storage	
Type of memory	DDR4
Main memory	2 GB RAM
Capacity of main memory, max.	2 Gbyte
Digital inputs	
Number of digital inputs	20
Input voltage	
● Type of input voltage	DC
Digital outputs	
Number of digital outputs	20
Output voltage	
● Type of output voltage	DC
● permissible voltage at output, min.	3.3 V
● permissible voltage at output, max.	5 V
Analog inputs	
Number of analog inputs	6
Input ranges	
● Voltage	Yes; 0 ... 5 V
Interfaces	
Number of industrial Ethernet interfaces	2
Number of PROFINET interfaces	2
serial interface	1x COM (1x RS 232 / 422 / 485)
Video interfaces	

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● Graphics interface	1x DisplayPort
Industrial Ethernet	
● Industrial Ethernet interface	
— 100 Mbps	Yes
— 1000 Mbps	Yes
Interrupts/diagnostics/status information	
LED status display	Yes
Integrated Functions	
Monitoring functions	
● Temperature monitoring	Yes
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
Ecological footprint	
● environmental product declaration	Yes
Global warming potential	
— 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
Ambient conditions	
Ambient temperature during operation	
● min.	0 °C
● max.	50 °C
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	
● 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/s²
Operating systems	
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
Classifications	

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	Version	Classification
eClass	16	19-20-01-02
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	10	EC001413
ETIM	9	EC001413
ETIM	8	EC001413
ETIM	7	EC001413
IDEA	4	6606
UNSPSC	15	43-21-15-06

Approvals / Certificates

General Product Approval

Manufacturer Declaration

EMV	Maritime application	Dangerous goods			Environment
		Dangerous goods information	Dangerous goods information	Test Summary Report UN 38.3	

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