Armadillo-IoT A6E

Hardware specifications

Cat.1 bis + WLAN model + Di8 + Ai4 • Cat.1 bis model + Di8 + Ai4

Model number	A6E253-C0300	A6E253-C032	A6E243-C02
Product name	Armadillo IoT Gateway A6E Cat.1 bis+WLAN Model +Di8+Ai4 Development Kit	Armadillo IoT Gateway A6E Cat.1 bis+WLAN Model +Di8+Ai4 for Mass Production (1/5 antenna set included, WLAN combo included, WLAN board antenna included)	Armadillo IoT Gateway A6E Cat.1 bis model +Di8+Ai4 for mass production (1/5 antenna set included, WLAN combo not included)
CPU	NXP Semiconductors i.MX 8ULL Arm Cortex-A7 (528MHz)		
RAM	512MB (DDR3L-800)		
ROM	3.5GB (eMMC)[1][2][3]		
LAN	RJ45 x 1 (1000BASE-T/100BASE-T, AUTO-MDIX compatible)		
Wireless LAN module	WLAN + BT Combo Module IEEE 802.11a/b/g/n/ac[4][5][6][7]		Not included
Mobile communication	LTE Cat.1 bis[7][8][9] Compatible with two carriers (NTT Docomo, KDDI)[7][10] SIM slot: Supports nano-SIM cards[7][11]		
USB	USB 2.0 (host) x 1 (High Speed)		
serial	RS485 half duplex		
I/O ports	Analog input (AI): [12-bit resolution, supports 4-20mA(3-5V input)] x 4, Contact input (DI) x 10, Contact output (DO) x 2, External power control output x 1[12]		
SD/MMC	microSD slot x 1[13][14][15]		
Calendar Clock	Equipped with RTC[16][17](can connect to a backup battery, CR1220)		
switch	User switch x 1, Configuration switch x 2		
LED	System x 1 (Green), App x 1 (Green), LTE x 1 (Green)		
Input power	DC 8V to 26.4V		
Power consumption (reference value)	Approximately 4mW (shutdown), approximately 220mW (sleep) , approximately 220mW (sleep [SMS wake-up available]) , approximately 1,100mW (active) , approximately 1,250mW (active [LTE continuous communication]) , approximately 2,250mW (active [LTE/WLAN continuous communication]) , approximately 3,050mW (maximum power consumption [LTE continuous communication])[7][8][9][18] , approximately 4,000mW (maximum power consumption [LTE/WLAN continuous communication])[7][8][9][18]		Approximately 3mW (shutdown), approximately 190mW (sleep mode) , approximately 210mW (sleep mode [SMS wake-up available]) , approximately 1,000mW (active mode) , approximately 1,150mW (active mode [continuous LTE communication]) , approximately 2,400mW (maximum power consumption [continuous LTE communication])[7][8][9][18]
Operating temperature range	-20 to +60°C[19][20]		
Expansion interface	Not supported		
Maintenance port	USB micro-B serial console		
Secure element	Equipped with SE050		
External dimensions	159.9 × 90 × 32.2 mm[21][22]		
Installation method	Mounts to a 35mm DIN rail, or by using the mounting holes on the back wall.		

[1] C: Operates in -25℃ mode.
[2] Models equipped with the WLAN+BT combo module cannot use SD cards other than the installation disc.
[3] The maximum number of Bluetooth® connected devices is 7 for Classic and 10 for Bluetooth® Low Energy (BLE).
[4] By default, it is a settings that restrict output that is OFF when shut down and ON when active or in sleep mode.
[5] IEEE 802.11n communication is planned to be supported as of May 2020. Software communication is not supported.
[6] 4 nano-SIM card (sold separately) that supports the LTE area can be used.
[7] By default, it is a settings that restrict output that is OFF when shut down and ON when active or in sleep mode.
[8] When inserting or removing a microSD card, the case must be removed.
[9] The case must be removed when inserting or removing a microSD card.
[10] Power consumption varies depending on the radio wave environment and the connected device.
[11] This is a reference value when the LTE/WLAN signal strength is weak and no peripheral devices are connected.
[12] However, condensation must be absent.
[13] This is the size excluding protruding parts.

Cat.1 bis+WLAN model / Cat.1 bis model

Model number	A6E251-C0300	A6E251-C032	A6E241-C02
Product name	Armadillo IoT Gateway A6E Cat.1 bis+WLAN Model Development Kit	Armadillo IoT Gateway A6E Cat.1 bis+WLAN Model for Mass Production (1/5 antenna set included, WLAN combo included, WLAN board antenna included)	Armadillo IoT Gateway A6E Cat.1 bis Model for Mass Production (1/5 antenna set included, WLAN combo not included)
CPU	NXP Semiconductors i.MX 8ULL Arm Cortex-A7 (528MHz)		
RAM	512MB (DDR3L-800)		
ROM	3.5GB (eMMC)[1][2][3]		
LAN	RJ45 x 1 (1000BASE-T/100BASE-T, AUTO-MDIX compatible)		
Wireless LAN module	WLAN + BT Combo Module IEEE 802.11a/b/g/n/ac[4][5][6][7]		Not included
Mobile communication	LTE Cat.1 bis[7][8][9] Compatible with two carriers (NTT Docomo, KDDI)[7][10] SIM slot: Supports nano-SIM cards[7][11]		
USB	USB 2.0 (host) x 1 (High Speed)		
serial	RS485 half duplex		
I/O ports	Contact input (DI) x 2, Contact output (DO) x 2		
SD/MMC	microSD slot x 1[12][13][14]		
Calendar Clock	Equipped with RTC[15][16](can connect to a backup battery, CR1220)		
switch	User switch x 1, Configuration switch x 2		
LED	System x 1 (Green), App x 1 (Green), LTE x 1 (Green)		
Input power	DC 8V to 26.4V		
Power consumption (reference value)	Approximately 4mW (shutdown), approximately 150mW (sleep mode) , approximately 175mW (sleep mode [SMS wake-up available]) , approximately 1,000mW (active mode) , approximately 1,175mW (active mode [continuous LTE communication]) , approximately 2,300mW (maximum power consumption [LTE continuous communication])[7][8][9][17] , approximately 3,750mW (maximum power consumption [LTE/WLAN continuous communication])[7][8][9][17]		Approximately 3mW (shutdown), approximately 140mW (sleep mode) , approximately 165mW (sleep mode [SMS wake-up available]) , approximately 1,000mW (active mode) , approximately 1,150mW (active mode [LTE continuous communication]) , approximately 2,400mW (maximum power consumption [LTE continuous communication])[7][8][9][17]
Operating temperature range	-20 to +60°C[18][19]		
Expansion interface	2.54mm pin header[20][21] UART, GPIO, I²C, SPI, CAN, PWM, etc.		
Maintenance port	USB micro-B serial console		
Secure element	Equipped with SE050		
External dimensions	106 × 90 × 32.2 mm[20][21]		
Installation method	Mounts to a 35mm DIN rail, or by using the mounting holes on the back wall.		

[1] C: Operates in -25℃ mode.
[2] Models equipped with the WLAN+BT combo module cannot use SD cards other than the installation disc.
[3] The maximum number of Bluetooth® connected devices is 7 for Classic and 10 for Bluetooth® Low Energy (BLE).
[4] By default, it is a settings that restrict output that is OFF when shut down and ON when active or in sleep mode.
[5] IEEE 802.11n communication is planned to be supported as of May 2020. Software communication is not supported.
[6] 4 nano-SIM card (sold separately) that supports LTE areas can be used.
[7] The case must be removed when inserting or removing the microSD card.
[8] A battery (sold separately) must be connected to use the backup function.
[9] Power consumption varies depending on the radio wave environment and the connected device.
[10] This is a reference value when the WLAN signal strength is weak and no peripheral devices are connected.
[11] However, condensation should not occur.
[12] There are size restrictions on expansion boards when the case is attached.
[13] This is the size excluding the protruding parts.

WLAN model +DI8+AI4 LAN model +DI8+AI4

Model number	A6E231-C0200	A6E231-C032	A6E203-C02
Product name	Armadillo IoT Gateway A6E WLAN Model + DI8 + AI4 Development Kit	Armadillo IoT Gateway A6E WLAN Model +DI8+AI4 Mass Production Type (WLAN Combo included)	Armadillo IoT Gateway A6E LAN Model +DI8+AI4 for Mass Production
CPU	NXP Semiconductors i.MX 8ULL Arm Cortex-A7 (528MHz)		
RAM	512MB (DDR3L-800)		
ROM	3.5GB (eMMC)[1][2][3]		
LAN	RJ45 x 1 (1000BASE-T/100BASE-T, AUTO-MDIX compatible)		
Wireless LAN module	WLAN + BT Combo Module IEEE 802.11a/b/g/n/ac[4][5][6][7]		Not included
Mobile communication	Not included		
USB	USB 2.0 (host) x 1 (High Speed)		
serial	RS485 half duplex		
I/O ports	Analog input (AI): [12-bit resolution, supports 4-20mA(3-5V input)] x 4, Contact input (DI) x 10, Contact output (DO) x 2, External power control output x 1[8][9]		
SD/MMC	microSD slot x 1[10][11][12]		
Calendar Clock	Equipped with RTC[13][14](can connect to a backup battery, CR1220)		
switch	User switch x 1, Configuration switch x 2		
LED	System x 1 (Green), App x 1 (Green), LTE x 1 (Green)		
Input power	DC 8V to 26.4V		
Power consumption (reference value)	Approximately 3mW (shutdown), approximately 180mW (sleep mode) , approximately 850mW (active mode), approximately 1,550mW (maximum power consumption)[7][8][9][15]		Approximately 3mW (shutdown), approximately 180mW (sleep mode) , approximately 850mW (active mode), approximately 1,550mW (maximum power consumption)[7][8][9][15]
Operating temperature range	-20 to +60°C[16][17]		
Expansion interface	Not supported		
Maintenance port	USB micro-B serial console		
Secure element	Equipped with SE050		
External dimensions	159.9 × 90 × 32.2 mm[18][19]		
Installation method	Mounts to a 35mm DIN rail, or by using the mounting holes on the back wall.		

[1] C: Operates in -25℃ mode.
[2] Models equipped with a WLAN+BT combo module cannot use SD cards other than the installation disc.
[3] The maximum number of Bluetooth® connected devices is 7 for Classic and 10 for Bluetooth® Low Energy (BLE).
[4] By default, it is a settings that restrict output that is OFF when shut down and ON when active or in sleep mode.
[5] When inserting or removing a microSD card, the case must be removed.
[6] A battery (sold separately) must be connected to use the backup function.
[7] Power consumption varies depending on the radio wave environment and the connected device.
[8] This is a reference value when the WLAN signal strength is weak and no peripheral devices are connected.
[9] However, condensation must not occur.
[10] Dimensions exclude protruding parts.

WLAN model / LAN model

Model number	A6E211-C0200	A6E211-C032	A6E201-C02
Product name	Armadillo IoT Gateway A6E WLAN Model Development Kit	Armadillo IoT Gateway A6E WLAN Model for Mass Production (with WLAN Combo)	Armadillo IoT Gateway A6E LAN Model for Mass Production
CPU	NXP Semiconductors i.MX 8ULL Arm Cortex-A7 (528MHz)		
RAM	512MB (DDR3L-800)		
ROM	3.5GB (eMMC)[1][2][3]		
LAN	RJ45 x 1 (1000BASE-T/100BASE-T, AUTO-MDIX compatible)		
Wireless LAN module	WLAN + BT Combo Module IEEE 802.11a/b/g/n/ac[4][5][6][7]		Not included
Mobile communication	Not included		
USB	USB 2.0 (host) x 1 (High Speed)		
serial	RS485 half duplex		
I/O ports	Contact input (DI) x 2, Contact output (DO) x 2		
SD/MMC	microSD slot x 1[8][9][10]		
Calendar Clock	Equipped with RTC[11][12](can connect to a backup battery, CR1220)		
switch	User switch x 1, Configuration switch x 2		
LED	System x 1 (Green), App x 1 (Green), LTE x 1 (Green)		
Input power	DC 8V to 26.4V		
Power consumption (reference value)	Approximately 3mW (shutdown), approximately 150mW (sleep mode) , approximately 800mW (active mode), approximately 1,500mW (maximum power consumption)[7][8][9][13]		Approximately 3mW (shutdown), approximately 130mW (sleep) , approximately 800mW (active)[7][8] Approximately 1,300mW (maximum power consumption)[7][8]
Operating temperature range	-20 to +60°C[14][15]		
Expansion interface	2.54mm pin header[16][17] UART, GPIO, I²C, SPI, CAN, PWM, etc.		
Maintenance port	USB micro-B serial console		
Secure element	Equipped with SE050		
External dimensions	106 × 90 × 32.2 mm[16][17]		
Installation method	Mounts to a 35mm DIN rail, or by using the mounting holes on the back wall.		

[1] C: Operates in -25℃ mode.
[2] Models equipped with a WLAN+BT combo module cannot use SD cards other than the installation disc.
[3] The maximum number of Bluetooth® connected devices is 7 for Classic and 10 for Bluetooth® Low Energy (BLE).
[4] The case must be removed when inserting or removing a microSD card.
[5] A battery (sold separately) must be connected to use the backup function.
[6] Power consumption varies depending on the radio wave environment and the connected device.
[7] Reference value when the WLAN signal strength is weak and no peripheral devices are connected.
[8] However, condensation must not occur.
[9] There are size restrictions on expansion boards when the case is attached.
[10] Size excluding protruding parts.

For other products, please see the link below.

- Cat.1 models (A6E273-C0300, A6E273-C032, A6E263-C02, A6E271-C0300, A6E271-C032, A6E261-C02)
- Cat.M models (A6E223-C0300, A6E223-C02, A6E221-C0300, A6E221-C02)

For product inquiries or mass production consultations, please contact us via the web form.

Inquiry

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Armadillo Series Inc.