

Armadillo-IoT G4

Hardware specifications

LTE + WLAN model / WLAN model

Product name	Armadillo IoT Gateway G4 LTE+WLAN Model Development Kit (2GB Memory, 10GB Storage)	Armadillo IoT Gateway G4 LTE+WLAN Model for Mass Production (2GB Memory, 10GB Storage, LTE Antenna Set Included, WLAN Combo Equipped)	Armadillo IoT Gateway G4 WLAN Model for Mass Production (2GB Memory, 10GB Storage, WLAN Combo)	Armadillo IoT Gateway G4 WLAN Model Mass Production Board (2GB Memory, 10GB Storage, WLAN Combo)
CPU	NXP Semiconductors i.MX 8M Plus Arm Cortex-A53 (1.6GHz) quad-core processor			
NPU	2.3 TOPS			
RAM	2GB (LPDDR4)			
ROM	10GB (eMMC) ^[※1]			
LAN	RJ45 x 2 (1000BASE-T, AUTO-MDIX compatible)			
Wireless LAN module	WLAN + BT Combo Module ^[※2] IEEE 802.11 a/b/g/n/ac/ax			
Mobile communication	LTE Cat.4 compatible with all 3 carriers ^[※3] SIM slot: Supports nano-SIM cards ^[※4]		Not included	
USB	USB 3.0 x 1 (Type-A)			
SD/MMC	microSD slot x 1			
Calendar Clock	Equipped with RTC ^[※5] (Backup function supported *when backup battery is connected)			
audio	HDMI Audio			
camera	MIPI CSI-2 x 1 *Cannot be used when the case is attached.			MIPI CSI-2 x 1
video	Video output: Micro HDMI terminal (Type-D) x 1			
	LVDS (4 lanes) x 1 *Cannot be used when a case is attached.			LVDS (4 lanes) x 1
switch	User switch x 1			
LED	User LED x 1 (Green), WWAN LED x 1 (Green)			
Input power	DC12V±10%			
Power consumption (reference value)	Approximately 3.9W (steady state), approximately 5W (WLAN communication), approximately 4.3W (LTE communication) ^[※6]		Approximately 3.5W (steady state), approximately 4.3W (during WLAN communication)	
Operating temperature range	-20 to +60°C ^[※7]			
Expansion Interface	Not supported		USB 2.0, CAN, UART, GPIO, I²C, SPI, I²S, PDM, PWM, etc. *Not usable when the case is attached.	USB2.0, CAN, UART, GPIO, I²C, SPI, I²S, PDM, PWM, etc.
Maintenance port	USB micro-B serial console			
Secure element	Equipped with SE050			
External dimensions	143 x 100.5 x 26 mm ^[※8]			135 x 95 mm ^[※8]

[※1] Operates in pSLC mode.
[※2] The number of simultaneous connections in AP mode is 32. When using the wireless LAN module, the included external antenna must be connected.
[※3] When using mobile communication, the included external antenna must be connected.
[※4] A nano-SIM card (sold separately) that supports LTE areas can be used.
[※5] Usable when the backup battery (sold separately) is connected.
[※6] This value is when the LTE signal quality is 80%. Power consumption will vary depending on the radio wave environment.
[※7] However, condensation should not occur. When using the board alone, heat dissipation may be required at the installation location.
[※8] Dimensions excluding protrusions.

LTE model

Model number	AGX4520-C02D0	AGX4520-C02Z
Product name	Armadillo IoT Gateway G4 LTE Model Development Kit (2GB Memory, 10GB Storage)	Armadillo IoT Gateway G4 LTE Model for Mass Production (2GB Memory, 10GB Storage, LTE Antenna Set Included, WLAN Combo Not Included)
CPU	NXP Semiconductors i.MX 8M Plus Arm Cortex-A53 (1.6GHz) quad-core processor	
NPU	2.3 TOPS	
RAM	2GB (LPDDR4)	
ROM	10GB (eMMC) ^[※1]	
LAN	RJ45 x 2 (1000BASE-T, AUTO-MDIX compatible)	
Wireless LAN module	Not included	
Mobile communication	LTE Cat.4 compatible with all 3 carriers ^[※2] SIM slot: Supports nano-SIM cards ^[※3]	
USB	USB 3.0 x 1 (Type-A)	
SD/MMC	microSD slot x 1	
Calendar Clock	Equipped with RTC ^[※4] (Backup function supported *when backup battery is connected)	
audio	HDMI Audio	
camera	MIPI CSI-2 x 1 *Cannot be used when the case is attached.	
video	Video output: Micro HDMI terminal (Type-D) x 1	
	LVDS (4 lanes) x 1 *Cannot be used when a case is attached.	
switch	User switch x 1	
LED	User LED x 1 (Green), WWAN LED x 1 (Green)	
Input power	DC12V±10%	
Power consumption (reference value)	Approximately 3W (steady state), approximately 6W (LAN x 2, LTE communication) ^[※5]	
Operating temperature range	-20 to +60°C ^[※6]	
Expansion interface	Not supported	
Maintenance port	USB micro-B serial console	
Secure element	Equipped with SE050	
External dimensions	143 x 100.5 x 26 mm ^[※7]	

[※1] Operates in pSLC mode.
[※2] When using mobile communication, the included external antenna must be connected.
[※3] A nano-SIM card (sold separately) that supports LTE areas can be used.
[※4] Usable when a backup battery (sold separately) is connected.
[※5] This value is when the LTE signal quality is 80%. Power consumption will vary depending on the radio wave environment.
[※6] However, condensation should not occur. When using the board alone, heat dissipation may be required at the installation location.
[※7] Dimensions exclude protrusions.

LAN model

Model number	AGX4500-C00D0	AGX4500-C00Z	AGX4500-U00Z
Product name	Armadillo IoT Gateway G4 LAN Model Development Kit (2GB Memory, 10GB Storage)	Armadillo IoT Gateway G4 LAN Model for Mass Production (2GB Memory, 10GB Storage, WLAN Combo Not Included)	Armadillo IoT Gateway G4 LAN Model Mass Production Board (2GB Memory, 10GB Storage, WLAN Combo Not Included)
CPU	NXP Semiconductors i.MX 8M Plus Arm Cortex-A53 (1.6GHz) quad-core processor		
NPU	2.3 TOPS		
RAM	2GB (LPDDR4)		
ROM	10GB (eMMC) ^[※1]		
LAN	RJ45 x 2 (1000BASE-T, AUTO-MDIX compatible)		
Wireless LAN module	Not included		
USB	USB 3.0 x 1 (Type-A), USB 2.0 x 1 (pin header)		
SD/MMC	microSD slot x 1		
Calendar Clock	Equipped with RTC ^[※2] (Backup function supported *when backup battery is connected)		
audio	HDMI Audio		
camera	MIPI CSI-2 x 1 *Cannot be used when the case is attached.		MIPI CSI-2 x 1
video	Video output: Micro HDMI terminal (Type-D) x 1		
	LVDS (4 lanes) x 1 *Cannot be used when a case is attached.		LVDS (4 lanes) x 1
switch	User switch x 1		
LED	User LED x 1 (Green)		
Input power	DC12V±10%		
Power consumption (reference value)	Approximately 2.5W (steady state)		
Operating temperature range	-20 to +70°C ^[※3]		
Expansion interface	USB 2.0, CAN, UART, GPIO, I²C, SPI, I²S, PDM, PWM, etc. *Not usable when the case is attached.		USB2.0, CAN, UART, GPIO, I²C, SPI, I²S, PDM, PWM, etc.
Maintenance port	USB micro-B serial console		
Secure element	Equipped with SE050		
External dimensions	143 x 100.5 x 26 mm ^[※4]		135 x 95 mm ^[※4]

[※1] Operates in pSLC mode.
[※2] Can be used when a backup battery (sold separately) is connected.
[※3] However, condensation should not occur. When using the board alone, heat dissipation may be required at the installation location.
[※4] Dimensions exclude protrusions.

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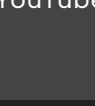
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