

Wireless-ready Arm-based Computers

Built-in cellular or Wi-Fi module, RF type approvals, and carrier approvals



Series	UC-2100-W Series		UC-3100 Series			UC-8100A-ME-T Series	UC-8200 Series
Model	UC-2114	UC-2116	UC-3101	UC-3111	UC-3121	UC-8112A	UC-8220
Computer							
CPU	Arm Cortex-A8 1 GHz	Arm Cortex-A8 1 GHz	Arm Cortex-A8 1 GHz	Arm Cortex-A8 1 GHz	Arm Cortex-A8 1 GHz	Arm Cortex-A8 1 GHz	Arm Cortex-A7 dual core, 1 GHz
Memory	512 MB	512 MB	• 512 MB • 1 GB (US model)	• 512 MB • 1 GB (US model)	• 512 MB • 1 GB (US model)	1 GB	2 GB
Storage Preinstalled	8 GB	8 GB	• 4 GB • 8 GB (US model)	• 4 GB • 8 GB (US model)	• 4 GB • 8 GB (US model)	8 GB	8 GB
Storage Slot	1 x microSD	1 x microSD	–	1 x SD	1 x SD (US model)	1 x SD	1 x microSD
OS	Moxa Industrial Linux (Debian 9, Kernel 4.4)	Moxa Industrial Linux (Debian 9, Kernel 4.4)	Moxa Industrial Linux (Debian 9, Kernel 4.4)	Moxa Industrial Linux (Debian 9, Kernel 4.4)	Moxa Industrial Linux (Debian 9, Kernel 4.4)	Moxa Industrial Linux (Debian 9, Kernel 4.4)	Moxa Industrial Linux (Debian 9, Kernel 4.4)
TPM	–	–	–	–	–	–	TPM 2.0 built-in
Ethernet Ports	1 x GbE LAN, 1 x LAN	1 x GbE LAN, 1 x LAN	2 x LAN	2 x LAN	2 x LAN	2 x LAN	2 x GbE LAN
Serial Ports (RS-232/422/485)	2	2	1	2	1	2	2
CAN Ports	2	2	–	–	1	–	1
DI/DO	–	–	–	–	–	–	4 x DI, 4 x DO
USB Ports	–	–	1	1	1	1	1
Wireless							
Wireless Expansion Slot	–	–	–	–	–	–	1 x mPCIe slot
Cellular Connectivity	Built-in LTE Cat. M1/NB-IoT ¹	Built-in LTE Cat. M1/NB-IoT ¹	Built-in LTE Cat. 1 ¹	Built-in LTE Cat. 1 ¹	Built-in LTE Cat. 1 ¹	Built-in LTE Cat. 4 ¹	Built-in LTE Cat. 4 ¹
SIM Slots	2 x nano-SIM	2 x nano-SIM	2 x nano-SIM	2 x nano-SIM	2 x nano-SIM	1 x mini-SIM	2 x nano-SIM
Wi-Fi	–	–	–	Built-in 802.11a/b/g/n ¹	Built-in 802.11a/b/g/n ¹	–	Expandable ²
GPS	–	Yes	US model only	US model only	US model only	Yes	Yes
Standards and Certifications							
Safety/EMC/RF	CE, FCC, UL, IC, EAC, RCM	CE, FCC, UL, IC, EAC, RCM	CE, FCC, UL, IC, EAC, RCM	CE, FCC, UL, IC, EAC, RCM	CE, FCC, UL, IC, EAC, RCM	CE, FCC, UL, IC, EAC, RCM, KC, NCC	CE, FCC, UL, IC, EAC, RCM, KC, NCC
Carrier Approval	Verizon, AT&T	Verizon, AT&T	Verizon, AT&T	Verizon, AT&T	Verizon, AT&T	Verizon, AT&T	Verizon, AT&T
Hazardous Locations	ATEX, C1D2, IECEx	ATEX, C1D2, IECEx	ATEX, C1D2, IECEx	ATEX, C1D2, IECEx	ATEX, C1D2, IECEx	ATEX, C1D2, IECEx	ATEX, C1D2, IECEx
Environmental Limits and Power Parameters							
Operating Temperature	-40 to 75°C	-40 to 75°C	• -40 to 70°C (US model) • -30 to 70°C (Other)	• -40 to 70°C (US model) • -30 to 70°C (Other)	• -40 to 70°C (US model) • -30 to 70°C (Other)	-40 to 70°C	-40 to 70°C
Power Consumption (max.)	5.8 W	5.8 W	6 W	9 W	9 W	8 W	12 W
IIoT Software							
ThingsPro	Yes ³	Yes ³	Yes	Yes	Yes	Yes	Yes ³

1. Wireless module is built-in. Refer to the *Wireless Connection and Expansion Modules* section for details.

2. Wireless module must be purchased separately. Refer to the *Wireless Connection and Expansion Modules* section for details.

3. Available in Q3 2020

Wireless-optional Arm-based Computers

Flexibility to add cellular or Wi-Fi capability when needed



Series	UC-2100 Series	UC-5100 Series		UC-8100 Series	UC-8100A-ME-T	UC-8200 Series	UC-8410A Series
Model	UC-2104	UC-5102	UC-5112	UC-8112	UC-8112A-ME-T-LX	UC-8220	UC-8410A
Computer							
CPU	Arm Cortex-A8 600 MHz	Arm Cortex-A8 1 GHz	Arm Cortex-A8 1 GHz	Arm Cortex-A8 1 GHz	Arm Cortex-A8 1 GHz	Arm Cortex-A7 dual core, 1 GHz	Arm Cortex-A7 dual core, 1 GHz
Memory	256 MB	512 MB	512 MB	512 MB	1 GB	2 GB	1 GB
Storage Preinstalled	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB
Storage Slot	–	1 x SD	1 x SD	1 x SD	1 x SD	1 x microSD	1 x SD, 1 x mSATA
OS	Moxa Industrial Linux (Debian 9, Kernel 4.4)	Moxa Industrial Linux (Debian 9, Kernel 4.4)	Moxa Industrial Linux (Debian 9, Kernel 4.4)	Moxa Industrial Linux (Debian 9, Kernel 4.4)	Moxa Industrial Linux (Debian 9, Kernel 4.4)	Moxa Industrial Linux (Debian 9, Kernel 4.4)	Linux Debian 8 (Kernel 4.1)
Ethernet Ports	1 x LAN	2 x LAN	2 x LAN	2 x LAN	2 x LAN	2 x GbE LAN	3 x GbE LAN
Serial Ports (RS-232/422/485)	–	4	4	2	2	2	8
CAN Ports	–	–	2	–	–	1	–
DI/DO	–	4 x DI, 4 x DO	4 x DI, 4 x DO	–	–	4 x DI, 4 x DO	4 x DI, 4 x DO
USB Ports	–	1	1	1	1	1	2
Wireless¹							
Wireless Expansion Slot	1 x mPCIe slot	1 x mPCIe slot	1 x mPCIe slot	1 x mPCIe slot	1 x mPCIe slot	2 x mPCIe slot	1 x mPCIe slot
SIM Slots	1 x mini-SIM	2 x micro-SIM	2 x micro-SIM	1 x mini-SIM	1 x mini-SIM	2 x nano-SIM	1 x mini-SIM
Standards and Certifications							
Safety/EMC/RF	CE, FCC, UL, EAC, RCM	CE, FCC, UL, EAC, RCM	CE, FCC, UL, EAC, RCM	CE, FCC, UL, EAC, RCM	CE, FCC, UL, EAC, RCM, KC	CE, FCC, UL, EAC, RCM, KC	CE, FCC, UL, EAC, RCM
Hazardous Locations	–	–	–	–	ATEX, C1D2, IECEx	ATEX, C1D2, IECEx	–
Environmental Limits and Power Parameters							
Operating Temperature	-10 to 70°C	<ul style="list-style-type: none"> -40 to 85°C -40 to 70°C (with LTE) -10 to 70°C (with Wi-Fi) 	<ul style="list-style-type: none"> -40 to 85°C -40 to 70°C (with LTE) -10 to 70°C (with Wi-Fi) 	-10 to 60°C	<ul style="list-style-type: none"> -40 to 85°C -40 to 70°C (with LTE/Wi-Fi) 	<ul style="list-style-type: none"> -40 to 85°C -40 to 70°C (with LTE/Wi-Fi) 	<ul style="list-style-type: none"> -40 to 75°C -40 to 70°C (with Wi-Fi)
Power Consumption (max.)	4 W	6 W	6 W	5.4 W	6 W	10 W	19 W
IIoT Software							
ThingsPro	Yes	Yes ²	Yes	Yes	Yes	Yes ²	–

1. Wireless module must be purchased separately. Refer to the *Wireless Connection and Expansion Modules* section for details.

2. Available in Q3 2020

Standard Arm-based Computers

Low power consumption and small form factor



Series	UC-2100 Series				UC-5100 Series		UC-8100 Series	UC-8200 Series	UC-8410A Series
Model	UC-2101	UC-2102	UC-2111	UC-2112	UC-5101	UC-5111	UC-8131	UC-8210	UC-8410A-NW
Computer									
CPU	Arm Cortex-A8 600 MHz	Arm Cortex-A8 600 MHz	Arm Cortex-A8 600 MHz	Arm Cortex-A8 1 GHz	Arm Cortex-A8 1 GHz	Arm Cortex-A8 1 GHz	Arm Cortex-A8 300 MHz	Arm Cortex-A7 dual core, 1 GHz	Arm Cortex-A7 dual core, 1 GHz
Memory	256 MB	256 MB	512 MB	512 MB	512 MB	512 MB	256 MB	2 GB	1 GB
Storage Preinstalled	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB
Storage Slot	-	-	1 x microSD	1 x microSD	1 x SD	1 x SD	1 x SD	1 x microSD	1 x SD 1 x mSATA
OS	Moxa Industrial Linux (Debian 9, Kernel 4.4)	Moxa Industrial Linux (Debian 9, Kernel 4.4)	Moxa Industrial Linux (Debian 9, Kernel 4.4)	Moxa Industrial Linux (Debian 9, Kernel 4.4)	Moxa Industrial Linux (Debian 9, Kernel 4.4)	Moxa Industrial Linux (Debian 9, Kernel 4.4)	Moxa Industrial Linux (Debian 9, Kernel 4.4)	Moxa Industrial Linux (Debian 9, Kernel 4.4)	Linux Debian 8 (Kernel 4.1)
TPM	-	-	-	-	-	-	-	TPM 2.0 built-in (S model only)	-
Ethernet Ports	1 x LAN	2 x LAN	2 x LAN	1 x GbE LAN, 1 x LAN	2 x LAN	2 x LAN	2 x LAN	2 x GbE LAN	3 x GbE LAN
Serial Ports (RS-232/422/485)	1	-	2	2	4	4	2	2	8
CAN Ports	-	-	-	-	-	2	-	1	-
DI/DO	-	-	-	-	4 x DI, 4 x DO	4 x DI, 4 x DO	-	4 x DI, 4 x DO	4 x DI, 4 x DO
USB Ports	-	-	-	-	1	1	1	1	2
Standards and Certifications									
Safety/EMC/RF	CE, FCC, UL, EAC, RCM	CE, FCC, UL, EAC, RCM	CE, FCC, UL, EAC, RCM	CE, FCC, UL, EAC, RCM	CE, FCC, UL, EAC, RCM	CE, FCC, UL, EAC, RCM	CE, FCC, UL, EAC, RCM	CE, FCC, UL, EAC, RCM, KC	CE, FCC, UL, EAC, RCM
Hazardous Locations	-	-	-	ATEX, C1D2, IECEx	-	-	-	ATEX, C1D2, IECEx	-
Environmental Limits and Power Parameters									
Operating Temperature	-10 to 60°C	-10 to 60°C	-10 to 60°C	• -40 to 75°C (T models) • -10 to 60°C	• -40 to 85°C (T models) • -10 to 60°C	• -40 to 85°C (T models) • -10 to 60°C	-10 to 60°C	-40 to 85°C	• -40 to 75°C (T models) • -10 to 60°C
Power Consumption (max.)	4 W	4 W	4 W	4 W	6 W	6 W	5.4 W	10 W	19 W

Wireless Connectivity and Expansion Modules*

Detail cellular and Wi-Fi support list with Moxa's wireless module accessories

Connection	Series	Models	Wireless Module Model	Countries/Regions Supported	Wireless Standard	Supported Bands
Cellular	UC-2100	UC-2104-LX	UC-LTE-CAT1-EU	Europe, Taiwan	LTE Cat. 1	1, 3, 8, 20, 28
			UC-LTE-CAT1-AUS	Australia, New Zealand	LTE Cat. 1	3, 5, 8, 28
			UC-LTE-CAT4-CN	China	LTE Cat. 4	1, 3, 8, 39, 40, 41
	UC-2100-W	UC-2114/2116-T-LX	Built-in	USA, Europe, Taiwan, Australia, New Zealand	LTE Cat. M1/NB-IoT	2, 3, 4, 5, 8, 12, 13, 20, 28
	UC-3100	UC-3101/3111/3121-T-US-LX	Built-in	USA	LTE Cat. 1	2, 4, 5, 12
			Built-in	Europe, Taiwan	LTE Cat. 1	1, 3, 8, 20, 28
			Built-in	Australia, New Zealand	LTE Cat. 1	3, 5, 8, 28
	UC-5100	UC-5102/5112-LX, UC-5102/5112-T-LX	UC-LTE-CAT1-EU	Europe, Taiwan	LTE Cat. 1	1, 3, 8, 20, 28
			UC-LTE-CAT1-AUS	Australia, New Zealand	LTE Cat. 1	3, 5, 8, 28
			UC-LTE-CAT4-CN	China	LTE Cat. 4	1, 3, 8, 39, 40, 41
	UC-8100A-ME-T	UC-8112A-ME-T-LX-US	Built-in	USA	LTE Cat. 4	2, 4, 5, 13, 17
			Built-in	Europe	LTE Cat. 4	1, 3, 5, 7, 8, 20
			Built-in	Australia, New Zealand,	LTE Cat. 4	1, 3, 5, 7, 8, 28
	UC-8200	UC-8220-T-LX-US-S	Built-in	USA	LTE Cat. 4	2, 4, 5, 13, 17
			Built-in	Europe	LTE Cat. 4	1, 3, 5, 7, 8, 20
Built-in			Australia, New Zealand, Taiwan	LTE Cat. 4	1, 3, 5, 7, 8, 28	
Wi-Fi	UC-2100	UC-2104-LX	UC-WiFi-USB	-	802.11 a/b/g/n/ac, 1T1R	2.4 GHz / 5 GHz
	UC-3100	UC-3111/3121-T-US-LX, UC-3111/3121-T-EU-LX, UC-3111/3121-T-AU-LX,	Built-in	-	802.11 a/b/g/n, 2T2R	2.4 GHz / 5 GHz
	UC-5100	UC-5102/5112-LX, UC-5102/5112-T-LX	UC-WiFi-USB	-	802.11 a/b/g/n/ac, 1T1R	2.4 GHz / 5 GHz
	UC-8100	UC-8112/8132/8162-LX	WiFi-BGN	-	802.11 a/b/g/n/ac, 1T1R	2.4 GHz / 5 GHz
	UC-8200	UC-8220-T-LX	UC-8200 WiFi-AC	-	802.11 a/b/g/n/ac, 2T2R	2.4 GHz / 5 GHz
	UC-8410A	UC-8410A-LX, UC-8410A-T-LX	Wi-Fi-BGN(252NI)	-	802.11 a/b/g/n, 2T2R	2.4 GHz / 5 GHz

* Antennas must be purchased separately

Basic Antenna Accessories*

Antenna Type	Accessory Model Name	Gain	Frequency Bands	Countries/Regions Supported	Note
Cellular	ANT-LTE-ASM-04 BK	2 dBi	704 to 960 MHz / 1710 to 2690 MHz	All	-
Wi-Fi	ANT-WDB-ARM-02	2 dBi @ 2.4 GHz 0.5 dBi @ 5 GHz	2.4 GHz / 5 GHz	-	Included in the Wi-Fi module kit for the UC-8112, UC-8138, and UC-8162 models
	ANT-WDB-ARM-0202 plus ADP	2 dBi	2.4 GHz / 5 GHz	-	Supported on UC-2104, UC-5102, and UC-5112 models only
GPS	ANT-GPS-OSM-03-3m BK	3 dBi	1563 to 1610 MHz	All	-

*For a complete list of compatible antennas and their detailed characteristics, visit Moxa's website or check with your local representative.