DS-011

Qualcomm QCS6490 Edge-AI Box

Features

- Powered by Qualcomm Dragonwing™ 8-core QCS6490 2.1GHz
- Hexagon™ 770 AI Engine up to 12 TOPS
- Triple-ISP for camera up to 192MP capture
- Qualcomm AI Hub for Application Development
- Dual HDMI 4K Display Support
- Dual LAN, RS232 & USB ports

WISE-DeviceOn

Introducton

DS-011, an Edge-AI Box equipped with 2 X UHD HDMI ports, designed for application-level display in AI applications, making it ideal for interactive-AI and signage-AI solutions. With low-power CPU, compact 23-mm height, and fanless design, it can be seamlessly installed in constrained spaces, ensuring reliable 24/7 operation in smart city environments.

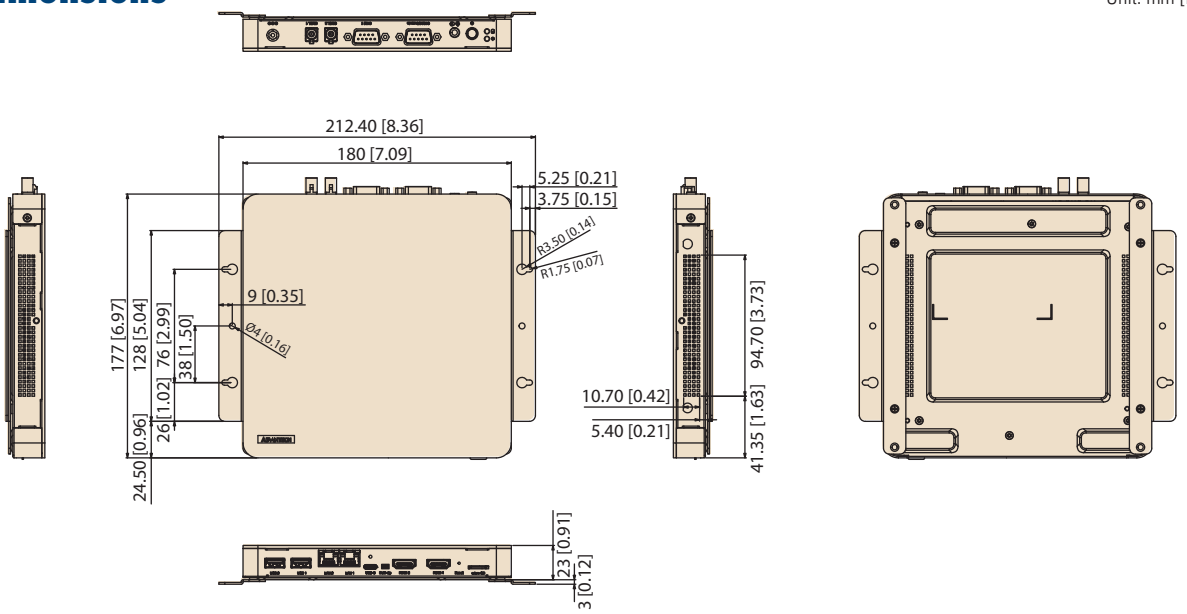
Specifications

		DS-011QF-U0A1E	DS-011QF-U1A1E
Processor	Chipset	Qualcomm QCS6490	Qualcomm QCS6490
	Clock Speed	1x A78 @ 2.7 GHz, 3x A78 @ 2.4 GHz, 4x A55 @ 1.9 GHz	
Memory	Technology	8GB LPDDR5 8533MT/s on board	
GPU		Adreno™ 643, 812MHz	
Thermal Solution		Fanless	
NPU	AI Engine	Hexagon™ 770, 1.45Ghz, 12 TOPS	
Display	Output	2 x HDMI 2.1 TMDS	
	HDMI Resolution	3840 x 2160 @ 30 Hz 3840 x 2160 @ 60 Hz	(Default setting is 2K)
Ethernet	Controller	RTL8211FS	
	Interface	Gigabit LAN Controller	
	Connector	2 x RJ45	
I/O Interfaces	Audio	1 x (Line-Out or Mic-In)	
	USB	2 x USB 3.2 Gen1	
	Serial Port (RS-232)	2 x RS232	
	LED Indicators	1 x Power, 1 x SSD Access	
	GMSL		2 x GMSL (support one output only)
Expansion	M.2	1 x 2280 M Key (NVME) 1 x 3042 B Key (LTE module) 1 x 2230 E Key (WiFi module)	
	MicroSD	1 x Card Slot	
Power Requirement	Input Voltage	12-24V DC-in (ATX/AT mode)	
Physical Characteristics	Mounting	Wall Mount	
	Dimensions (W x D x H)	180 x 177 x 23mm	
	Weight	0.9 kg	
Environment	Operating Temperature	0~40°C (with 0.7 m/s airflow)	
	Relative Humidity	95% @ 40 °C (non-condensing), operating	
Operating System	Operating System	Linux Yocto: kirkstone 4.0.18. Kernel : 6.6.28 Windows on Arm 11 Android 15	
Certifications	EMC	CE/FCC Class B, BSMI, UKCA	
	Safety	UL, CB, BSMI	

All product specifications are subject to change without notice.

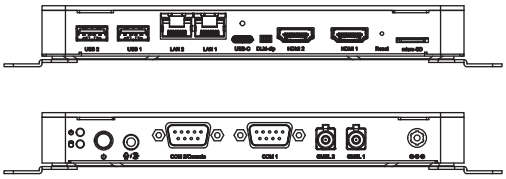
Dimensions

Unit: mm [inch]



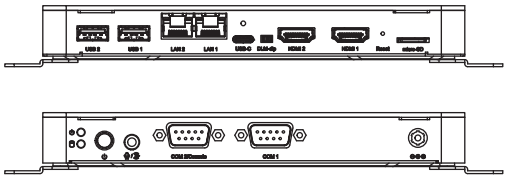
Front View

With GMSL



Rear View

Without GMSL



Ordering information

Part No.	CPU	Memory	Storage	HDMI	USB 3.2 Gen1	RJ-45	RS-232	GMSL	OS	Power input	Operating Temp.	Origin
DS-011QF-U0A1E	Qualcomm QCS6490	8G LPDDR5 on board	eMMC: 128G	2	2	2	2	0	Yocto	19V DC-in	0~40 °C	China
DS-011QF-U1A1E	Qualcomm QCS6490	8G LPDDR5 on board	eMMC: 128G	2	2	2	2	2	Yocto	19V DC-in	0~40 °C	China
DS-011QF-U0A1U	Qualcomm QCS6490	8G LPDDR5 on board	eMMC: 128G	2	2	2	2	0	Yocto	19V DC-in	0~40 °C	Taiwan
DS-011QF-U1A1U	Qualcomm QCS6490	8G LPDDR5 on board	eMMC: 128G	2	2	2	2	2	Yocto	19V DC-in	0~40 °C	Taiwan
DS-011QF-P0A1U	Qualcomm QCS6490	8G LPDDR5 on board	UFS: 128G	2	2	2	2	2	WOA	19V DC-in	0~40 °C	Taiwan
DS-011QF-U0A3U	Qualcomm QCS6490	8G LPDDR5 on board	UFS: 128G	2	2	2	2	2	Android	19V DC-in	0~40 °C	Taiwan

Packing List

Part Number	Description
-	1 x DS-011
96PSA-A65W19V1-3	ADP A/D 100-240V 65W 19V C6 DC PLUG 180° 62368
1960057740T002	Wall mount kit x 2

Optional Items

Part Number	Description
EWM-C401CQE01	Cellular 4G M.2 3042 Key B, no simslot, no GNSS
AIW-170BQ-001	WiFi6E M.2 2230 E key
1751000717-01	2xDipole Ant.WiFi 6E
1751000648-01	2xRF cable

Storage and DRAM

Part Number	Description
SQF-C8MV2-128GDEDM	SQF M.2 2280 720-D 128G 3D TLC BiCS5 (-20~85°C)

Power Cord

Part Number	Description
1700001524	3-pin power cord (US)
170203183C	3-pin power cord (EU)
170203180A-01	3-pin power cord (UK)
1700008921	3-pin power cord with PSE (Japan)
1700019146	3-pin power cord (CCC)
1700018553	3-pin power cord (AU)
1700024849-01	3-pin power cord (TW)