QL601 Box PC [Preliminary]

Qualcomm® Dragonwing™ QCS6490 Processor

For Smart City, Smart Retail and AMRs Applications
Compatible with Raspberry Pi 5 for IO expansion

Overview

AVerMedia's QL601 support powerful Qualcomm® Dragonwing™ QCS6490 processor. This efficient chip opens new worlds of embedded IoT applications with full analytic capabilities.

QL601 is designed to deliver premium-tier features and networking. It offers robust computing capabilities while maintaining energy efficiency, making it ideal for both industrial and commercial use cases.

AVerMedia supports businesses of all sizes and offers customizable BSP services with Qualcomm TEE , flexible MoQ, Qualcomm® Linux and AVerMedia SDK.

Enterprise-Leading Features

- Applies to Qualcomm® QCS6490 processor
- 2 x 4 Lane MIPI CSI / 1 x 4 Lane MIPI DSI
- 1 x HDMI output 3840 x 2160 at 60Hz
- 1 x DP output 1920 x 1080 at 60Hz
- 2 x USB 3.0 Type-A & 2 x USB 2.0 Type-A
- 1 x GbE RJ-45
- 1 x M.2 B Key for LTE/5G
- 40-pin Expansion Header
- Operating temperature: -10°C ~ 55°C
- Dimension: 142 mm x 92 mm x 61.6 mm

The AVerMedia Advantage

Video Processing Technology

Flexibility & Reliability

Dedicated After-Sales Support

AVerMedia understands that each business has a unique set of requirements that requires professional expertise and support. With AVerMedia, you are guaranteed to work with a proven global leader in video processing technology (200+ video capturing & streaming patents) with decades of experience processing multiple video signals for countless award-winning products.

A global leader that supports businesses of all sizes with comprehensive customization services (i.e., HW/PCB/BSP/etc.), flexible MoQ while ensuring a high-quality design and stable product. And for projects requiring additional security, we can provide customizable encryption hardware to support your privacy needs.

By partnering with us, our support-driven team offers prompt after-sales support and live support so that your company stays focused on what matters most, customer acquisition.

Specifications

Model	QL601 Box PC
Platform /Computing Power	Qualcomm® Dragonwing™ QCS6490 / 12.5TOPS
Memory and Storage	LPDDR4 x 8GB + UFS2.2 128GB
Networking	1 x GbE RJ-45 802.11ax Wi-Fi 6E and Bluetooth 5.2 1 x M.2 Key B for LTE/5G; Micro SIM slot
Display Output	1 x HDMI output 3840 x 2160 at 60Hz 1 x DP output 1920 x 1080 at 60Hz 1 x 4 Lane MIPI-DSI
Audio	1 x MIC.in / Line Out (disable on Windows 11 IoT)
USB	2 x USB 2.0 Type A (shared) 2 x USB 3.0 Type-A (shared with M.2 Key B) 1 x USB Type-C (BSP Flash)
Camera Support	2 x 4-lane MIPI-CSI, 22pin FPC 0.5mm pitch (disable on Windows 11 IoT) USB Camera
Expansion Header	40-pin Headers : 2 x 3.3V DC power, 2 x 5V DC power, 2 x UART, 2 x SPI, 1 x PWM, 8 x GPIO, 2 x I2C
Other I/O	1 x PCIe 2.0 RTC wafer, Fan wafer, UART wafer, PoE Header
Storage	microSD card slot
Input Power	3.5mm Screw Terminal: 9V~20V Optional 12V/5A Adapter
Power Cord	US/JP/EU/UK/TW/AU/CN (optional)
Warranty	1 year (Contact us for Extended Warranty)
Temperature	Operating temperature -10°C ~55°C
Buttons	Power/Reset
PCBA/Electronics Mechanical Info	L: 142 mm x W: 92 mm x H: 61.6 mm Weight: 758g
Operating System	Qualcomm Linux 1.3 / Ubuntu20.04 / Windows 11 IoT LTSC / Android 13
SDK/API	AVerMedia SDK/API
Certifications	CE, FCC, KC
Package	1x QL601 Box PC 1x Adapter & Power Cable Screws

AVerMedia Linked in You Tube

RoHS 2 COMPLIANT

*All specifications are subject to change without prior notice.

Security

Function	Description
Qualcomm TEE (Disable on Windows IoT)	Ensures secure memory, content protection, trusted application execution, and power-efficient security management.

Ordering Information

Model	SKU Number	Operating System	OOB Board	PCIe to ethernet Board	PSE Board
QL601	QL601WN1N	Windows 11 IoT LTSC			
QL601	QL601WO1N	Windows 11 IoT LTSC	V		
QL601	QL601UN1N	Ubuntu 20.04			
QL601	QL601UO1N	Ubuntu 20.04	V		
QL601	QL601UO2N	Ubuntu 20.04	V	V	
QL601	QL601UO2P	Ubuntu 20.04	V	V	V
QL601	QL601AN1N	Android 13			
QL601	QL601AO1N	Android 13	V		
QL601	QL601AO2N	Android 13	V	V	
QL601	QL601AO2P	Android 13	V	V	V
QL601	QL601LN1N	Linux 1.3			
QL601	QL601LO1N	Linux 1.3	V		
QL601	QL601LO2N	Linux 1.3	V	V	
QL601	QL601LO2P	Linux 1.3	V	V	V

Optional Accessories

MIPI Camera	For 22pin MIPI connector: Raspberry pi camera v2 (IMX219 module)

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