Robotics AI Computing Platform

URC100QT

Key Features

- Based on Qualcomm **QCS8550-1-AA** SOC
- Embedded NPU **48TOP**s in 4nm SoC
- LPDDR5 12GB, UFS 3.1 128GB
- Best robotics computing module
    - High performance AP + Camera processor + MCU
- Can Fault diagnosis and prediction
- **8 Channel Camera Interface(GMSL2)**
- Video encoder 4K120fps and streaming
- Support Multi connectivity
    - 4G-LTE , Wi-Fi ax/BT 5.3, GNSS+RTK
- Support various interface
    - USB 3.1 x2, USB2.0x 8
    - 1000Base-T Ethernet x2
    - CAN x2 / LIN x2 / RS485 or RS422 x2 / UART x2
    - Audio 1 Port (Mic In & SPK Out)
- Support SNPE & QNN platform for AI processing
- OS : Linux Yocto (kernel ver_5.15)

❋ *Simultaneous can use of Qualcomm and NVIDIA platforms with one main board*

Introduction

URC100 is designed with the latest Qualcomm® Snapdragon™ SoC as the main processor. Qualcomm® is designed on a 4nm process to deliver superior performance with minimal power consumption.

For various sensor sets and algorithm processing required in robotics systems, recognition and judgment can be processed quickly with a high-performance AP, built-in NPU 48 Tops, and a separate Camera Process Block allows for 4K120fps processing. Can support video processing and streaming services.

We also build and support a system that can diagnose and predict failures in robot systems.

URC100 support the high-speed PCIe gen4, allows input from up to 8 camera sensors through GMSL2 interface, , also has a GNSS receiver capable of RTK based on dead reckoning for high-precision positioning. It supports the requirements for autonomous robotic driving by embedding a 4G modem and Wi-Fi AX for wireless communication. In addition, the Linux ROS2.0 SDK is provided to enable flexible development and rapid application of autonomous driving applications, including deep learning based on high performance, high reliability, and various scalability for robotics.

URC100 is a dedicated AI Computing Platform for robotics systems and will be the optimal solution to reduce costs, facilitate development, shorten period, and minimize size.