

Technical Documents

1. Hardware Datasheet
2. Hardware Reference Manual
3. Schematics + PCB Reference Design
4. Mechanical Drawing + STEP Files
5. Electrical Characteristics
6. Power-up sequence, reset sequence
7. Thermal design guide
8. Camera/ Audio/ IO interfaces guide

Software Documents

1. Linux BSP(Board Support Package)
2. NPU compiler User Guide
3. NPU Runtime API Document
4. SDK Installation Manual
5. Model Conversion Guide
 - 5-1. Keras
 - 5-2. Tensorflow/ TFLite
 - 5-3. Pytorch/ ONNX
6. Sample code tutorials
7. Edge device deployment & update guide

Business & Compliance

1. Product Brief(Marketing 4 pages)
2. Certifications (KC, FCC, CE, RoHS)
3. ordering information (MOQ, lead time, price list)
4. Warranty & RMA process
5. Partner support plan & SLA

SoC Datasheet

Include:

Key Table

- * CPU
- * NPU TOPS
- * Memory
- * Supported Quantization
- * Power Consumption
- * Operating temperature
- * Dimensions (mm)
- * IO Pin summary

Diagrams

- * Block Diagram
- * Power Domain Diagram
- * NPU Architecture overview

Hardware Reference Manual

Detailed:

- * ALL GPIO/ UART/ I2C/ SPI Pin MUX Table
- * Power Sequence Diagram
- * Boot Mode Selections
- * CSI Camera Connection
- * Audio Interface (I2S/ PDM/ MIC bias)
- * PCIe/ USB/ Ethernet details
- * LED, reset, debug port

Model Conversion Guide

include:

- Pytorch to ONNX
- KERAS
- Tensorflow/ TFLite

Runtime API Document

Python API:

C API

Getting Started

- * Install SDK
- * Compile Model
- * Run Sample Demo

Example Developer (How users will use H/W module of AI)

1. Buy your board
2. Go to GitHub
3. Download SDK
4. Follow “getting started” (20 mins)
5. Convert model
6. Run demo
7. Deploy on edge device
8. Integrate with Python/C library
9. Report issues through GitHub

CheckList to for Hardware Vendor

Hardware

- Module + carrier board
- Design files
- Schematics

Software

- Linux BSP
- SDK
- Compiler
- Runtime
- Tools

Documentation

- Full PDF docs
- Web docs
- Tutorials
- Troubleshooting

Examples

- Camera/Yolo
- Audio KWS

- Radar displacement
- Web dashboard

Support

- GitHub issues
- Email
- Discord / Forum