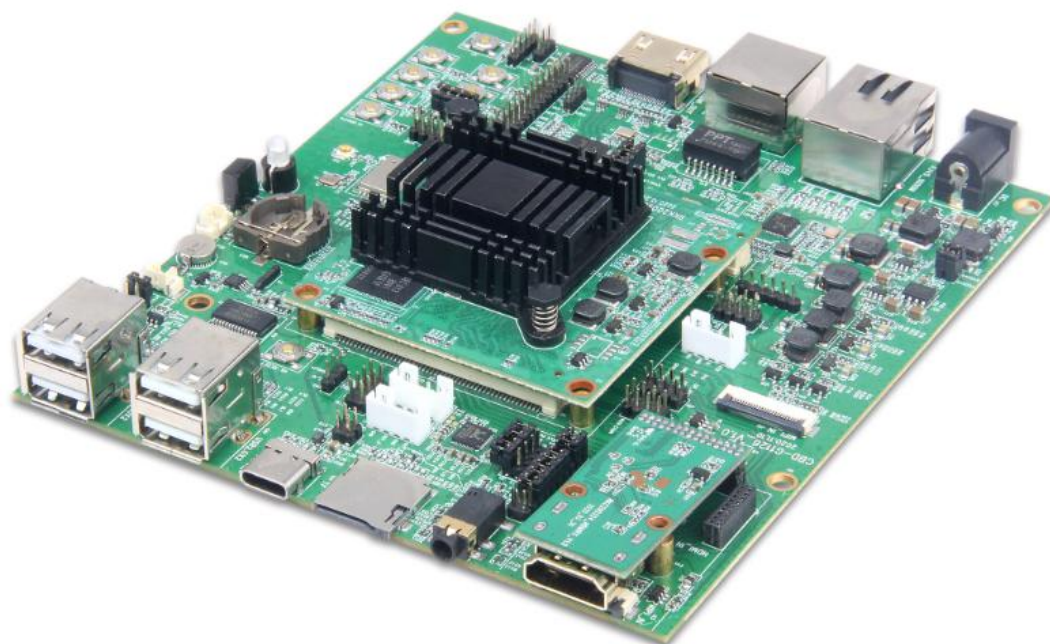# RV1126 artificial intelligence development board

DB1126

DB1126 is a high-performance, versatile（14 million pixel image signal processor）, high-computing (2TOPS) general-purpose intelligent integrated carrier board + core board.The product configuration can be flexibly updated in parallel by replacing the core board/module, reducing the cost of enterprise upgrades, and at the same time using the carrier board protocol to partially debug the core board, reducing workload and improving stability, Commercial display, digital signage, smart home, video conference, video capture card, 4K wireless projector, AI UVC camera….

- The build-in NPU supports INT8/INT16 hybrid operation and computing power is up to 2.0TOPs. In addition, with its strong compatibility, network models based on a series of frameworks such as TensorFlow/MXNet/PyTorch/Caffe can be easily converted.

- **Multiple video interfaces:**

  1*HDMI OUT

  1*HDMI IN

  1*MIPI DSI（2*15PIN 2mm gag）

  2*MIPI CSI（FPC 24pin 0.5mm gap）

- **GTIOT:**

  Support Z-WAVE / ZIGBEE /

  LoRa / LTE / GPS / WiFi / BT5.0

- **A** new generation totally hardware-based 14-megapixel ISP (image   signal processor) and post processor. It implements a lot of algorithm accelerators usually   used in IPC and CVR, such as HDR, 3A functions (AE, AF, AWB), LSC, 3DNR, 2DNR,   sharpening, dehaze, fisheye correction, gamma correction, feature points detection and so   on. are all real-time processing, while receiving video data from 3 camera sensors, very suitable for AI smart cameras.

- **Diversified functions：**

  Built-in dual RJ45 interface（1*100M+1*1000M）;

  Two-way noise reduction microphone: mainly for the processing of sound pickup technology in the surrounding noisy environment, eliminating external noise;

  built-in WatchDog&RTC：7*24H Stable and unguarded；

- **personalized customization：**

  Provide SDK secondary development

  MDM customization (remote device management)

  APP customization

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Product Specification

CPU	RV1126 Quad core ARM Cortex-A7 and RISC-V MCU
NPU	Neural network acceleration engine with processing performance up to 2.0 TOPS
RAM	256M（Up to 64GB optional）
ROM	8GB eMMC (Up to 16GB optional)
LAN	2*RJ45（LED） 10/100M + 10/100/1000M
WiFi	802.11 a/b/g/n/ac（2.4G/5G）
BT	BT 4.2/5.0(optional)
GTIOT	Support Z-WAVE / ZIGBEE / LoRa / LTE / GPS / WiFi / BT5.0 / LTE
MIC	Two-way noise reduction microphone
WatchDog&RTC	Support
I/O	1 x MIPI DSI
	1 x HDMI Out
	1 x HDMI IN (Up to 1080P60 input)
	1 x Type C
	4 x USB 2.0
	1 x Serial Port(2-wire UART)
	2 x MIPI CSI
	1 x TF
	1 x Earphone
	1 x IR
	1 x DC IN
OS	Embedded Linux
POWER	DC 12V/2A
Size(mm)	140*125
Certifications	CE/FCC

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