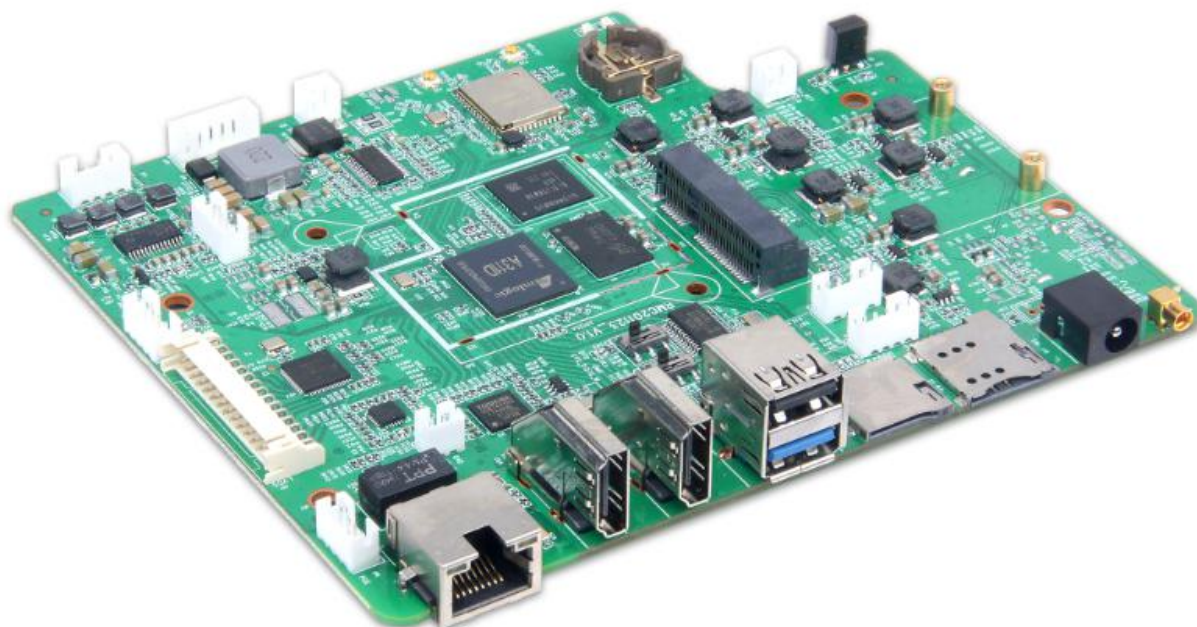


A311D artificial intelligence development board

DB10



DB10 is Geniatech's latest super-performance AI 4K development board, built-in 5TOPS ultra-high computing power NPU, integrated HDMI OUT and LVDS mainstream dual display output interface, At the same time, LTE, Tuner and POE functions are added to make the functions more abundant and meet the needs of more developers in different scenarios, Commercial display, digital signage, smart home, video conference.....

CPU: 4x Arm Cortex A73, 2x Arm Cortex A53;

GPU : ARM Mali™-G52 MP6(6EE)

Adopting a new 12-nanometer production process, with higher performance, lower power consumption and lower heat generation

Various display interfaces:

HDMI OUT: 1 * HDMI

HDMI IN: 1 * HDMI

LVDS: 1 * LVDS (2*15P 2mm pitch interface), support LCD screens of mainstream sizes on the market

Tuner:

DVB-T2/T/C,

ATSC1.0/3.0,

ISDB-T/DTMB

NPU (5TOPS) : INT8 inference up to 1536 MAC

Internal L2 cache (512KB) and system workspace buffer (1MB)

Supports all major deep learning frameworks including TensorFlow and Caffe

Multi-functioning :

Standard RS232 protocol, multiple applications;

build-in WatchDog&RTC, Unguarded 7*24H stability;

LTE (Mini PCIe Interface/global standard) Meet outdoor network coverage

personalized customization :

Provide SDK secondary development

MDM customization (remote device management)

APP customization



Product Specification

CPU	Quad core ARM Cortex-A73 and dual core ARM Cortex-A53 CPU
GPU	ARM Mali-G52 MP4 (6EE) OpenGL ES 3.2, Vulkan 1.0 and OpenCL 2.0 support
NPU	5 TOPS
RAM	2GB LPDDR4 (4GB optional)
ROM	16GB eMM (8~64GB optional)
3G/4G	optional
LAN	1*RJ45 10/100/1000Mbps (LED)
WiFi	802.11 a/b/g/n/ac (2.4G/5G)
BT	BT 4.2/5.0(optional)
POE	support 802.3at
WatchDog / RTC	support
I/O	1 x Dual Channel 24-bits LVDS(Shared with eDP)
	1 x HDMI IN(up to 1920 x 1080P60)
	1 x HDMI Out(HDMI2.1, up to 4096 x 2160P60)
	1 x USB3.0, 3 x USB2.0
	2 x Serial Port(1 x 2-wire UART, 1 x 2-wire UART/Debug)
	2 x MIPI CSI(1 x 4-lane MIPI CSI, 1 x 2-lane MIPI CSI)
	1 x PCIe(3G/4G LTE)
	1 x SPEAKER
	1 x MIC
OS	Android 11.0 or Linux
POWER	DC 12V/2A
Size(mm)	142*117
Certifications	CE/FCC