

Shanghai Balanstech Information Technology Co., Ltd

BU99

High performance development kit for AI

Powered by standalone AI module

Rich external interfaces

BU99 is a development kit for AI launched by Shanghai Balanstech Information Technology Co., Ltd, by utilizing B100_A AI module. BU99 releases the key function of B100_A module from the external interface of the development board, easy access for users. BU99 can be widely used in image processing and real-time applications, Such as face recognition, smart robot, smart driving, smart retail, smart payment, smart medical care, smart education, security monitoring and other equipment and industries.



Features

- √ 8-core high-performance processor, high comprehensive computing power, high computing power
 efficiency ratio and so on, with the characteristics of B100_A module
- ✓ Supports 1 channel HDMI, 1 MIPI DSI which can be used for external touch screen, for display. Support multiple formats of encoding/decoding, including 4K@30fps, H. 264, H. 265, vp8 and vp9
- ✓ Provides dual MIPI CSI interfaces, supporting 4 channel cameras
- ✓ Audio function can meet the requirement of general applications. Codec in B100_A, supports dual MIC input and double speaker output.
- ✓ 2 SATA interfaces for hard disk storage, transmission data rate up to 5GT/s. Support various hard disk, suitable for collection of large video data
- ✓ Built-in WIFI 802.11a/b/n/ac、BT5.0, GPS, Glonass, Beidou, Galileo
- ✓ 1 miniPCIE interface, supporting external 3G, 4G, 5G cellular module, offering the connection between LAN and WAN
- ✓ With 2 RJ45 Gigabit ports for high-speed data transmission
- ✓ Support Android/Ubuntu OS, rich function and statable performance.



Electrical Characteristics

Supply voltage: 12V/3A

Power consumption: 0.25mA @shutdown 5mA @sleep mode,

typical

Processor

CPU: 4 * A75 @ 2.0GHz + 4 * A55 @ 1.8GHz

GPU: IMG9446 @ 800MHz

Memory

RAM: 2 * 16 LPDDR 4 / 4x @ 1866Mhz, up to 8GB

ROM: eMMC 5.1, UFS 2.1

AI NPU

 ${\tt Architecture:}\ {\tt Heterogeneous}\ {\tt dual-core}$

Computing power: Up to 3.2 TOPs(INT 8)

Energy efficiency: 2.5 TOPs / W Precision: INT4 INT8 INT16 FP16

Model: TensorFlow/Caffe/Onnx

Multi-media

Video codec: H. 263 / H. 264 / H. 265 / MPEG4 / VP8

Display: QHD+ @ 60fps, 3200 * 1440

ISP: VDSP, 24MP @ 10fps ZSL, or 16+16MP @30fps

Audio codec: MP3/AAC/ADPCM/AMR/AMR-WB/PLAC

Wireless

WIFI: 802.11a/b/n/ac

Bluetooth: BT5.0

GNSS: GPS/Galileo/GLONASS/Beidou(B1C)

Interface

LCM: 1 channel, 4-lan MIPI DSI

Touch Screen: Capacitive touch screen

Camera: 2 channel, 48M/8M

 $HDMI: HDMI \times 1$

UART: UART to Micro-USB imes 1

USB: USB3.0 Type-A \times 8

USB2.0 Type-C \times 1

Hard Disk: SATA \times 2

LAN: RJ45 \times 2

Audio: 2-channel analog MIC, 4-channel digital MIC,

1-channel speaker, 1-channel earphone,

1-channel headphone

PCIE: PCIE 3.0

MINIPCI-e: MINIPCI-e × 1

SIM card: MINIPCI-e SIM Card slot

TF card: TF card slot

Charge: fast charge and 9V2A, supporting Coulombic

meter

LED: red (power), green (status)

Flashlight: 2 channel, current < 2A

Button: start-up, rest, KEYO for downloading

Antenna: 3 channel, WIFI/BT, GNSS

General features

OS: Android10/Ubuntu18.04

Memory: 64GB eMMC + 4GB LPDDR4

Temperature: -20 $^{\sim}$ 65 $^{\circ}$ C

Size: 200mm * 200mm * 28mm





Accessories: Display*1, Camera*2

单击下面可查看定价,库存,交付和生命周期等信息

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