Intelligent Processing Unit EP0103

User Manual

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Changsha Intelligent Driving Institute Co.,Ltd

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1. Introduction

Intelligent Processing Unit is a miniature computer of data and image processing，its main computer unit contain 6 hign performance cores of CPU，384 cores of Nvidia GPU CUDA，16GB Emmc。The product can connect a display device of external，support the function of the 4th mobile communication，link mobile network ，it contain the interface of USB3.0，which support the peripheral of mouse and keyboard。

2. Main performance

2.1. performance parameter

table1 table of performance

NO.	item	Performance parameter
1	Computer function	Support GPUcolony operation， CUDA accelerate， NVDLA deep learning hardware accelerate
2	Safe function	Support hardware encrypt and deciphering
3	storeage	storage 128GB
4	Video input	Eight 720P AHD @ 25Hz
5	Video output	one 1080P HDMI @ 25Hz + one 720P AHD @ 25Hz
6	Net interface	iX61G micro net interface，10/100/1000M Ethernet
7	Communication interface	two CAN， two USB 3.0
8	IO	Support two keyboard input
9	Wireless communication	Support 3th generation mobile communication
10	OS	Ubuntu 18.04 or Android

2.2. physical dimension

table2 physical dimension

dimension	≤182.5x202x56.3 mm
weight	≤1.5 Kg
material	aluminium

2.3. electrical features

table3 electrical features

power	24V@1.5A
power dissipation	≤36W

3. system software

Intelligent Processing Unit run the OS of Ubuntu 18.04。Ubuntu 18.04 TLS is a profession version for tabletop PC and notebook PC。Ubuntu is a Open-source operating system base on Debian GNU/Linux,support the architecture of X86、ARM and PPC。

4. installation

4.1. accessory list

table4 list of accessory

NO.	Name of accessory	number
1	packing box	1
2	memory card 128GB	1
3	Power cable，MX34016SF1, Adapter:GST120A24-HON	1
4	Video cable，M12-12L-Sx+12M-4B	2
5	User manual	1
6	certificate	1

4.2. install instruction

（1）the device has a architecture of horizontal type。Request a placement of horizon,and need a guarantee of enough ventilate space。

（2）the interface of USB3.0 support the peripheral of mouse and keyboard，support hot plug。

appendix：after-sale service

thanks for you to use the device of Changsha Intelligent Driving Institute Co.,Ltd！during the use of device,you can get some technology service。

1. free technology consult

during the use of device，in the event of technology problem，usually can get the support of engineer for solve the problem。

Phone of technology consult：0731-89932719

2. support of fieldwork

In case of the problem cannot be solved by phone communicate, according to the need, we can also arrange engineer to solved the problem on fieldwork。

FCC compliance statement

Note: This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and

used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

To maintain compliance with FCC's RF Exposure guidelines, this equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.

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