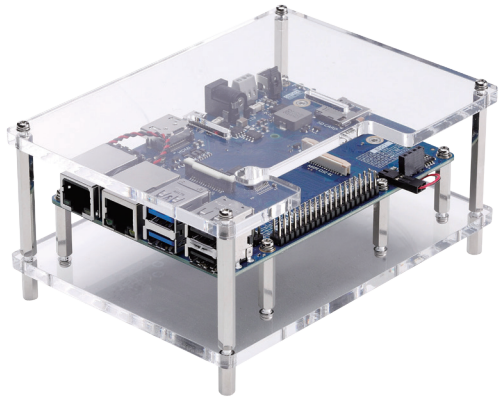
Neuron Pi series

ROS and AI rapid development kit based on SMARC®

Features

- Compatible with Raspberry Pi 40-pin GPIO
- Rich ROS open source applications
- Compact size based on the SMARC form factor



Introduction

The Neuron Pi is an integrated development board, powered by Intel® and Rockchip SMARC modules, for rapid development and prototyping of ROS and AI applications. Users can quickly learn to code with open source ROS libraries and packages.

Ordering Information

- **NPS-1**
  Neuron Pi with Intel Atom® SMARC
- **NPS-4**
  Neuron Pi with Rockchip SMARC

Optional Accessories

- **Micro SD Card**
  Transend 32GB Micro SD memory card (P/N: 29-F0500-1070)
- **External Antenna**
- **AC/DC Power adapter**
  24W wall-mount adapter (P/N: 31-62167-0000-A0)

Specifications

Model Name	NPS-1	NPS-4
SMARC module		
CPU	Intel Atom®	RockChip PX-30
VPU	Intel Movidius Myriad X	None
Memory	8GB LPDDR4	2GB DDR3L
Storage	32G eMMC	None
Video/Audio		
Display	1x HDMI, DSI	
Audio	Stereo headphone audio connector	
External I/O		
Ethernet	1x Gigabit Ethernet	
USB 3.0	2x USB 3.0 Type A connector	
USB 2.0	2x USB 2.0 Type A connector	
MIPI CSI	1x MIPI CSI	
MRAA 40-pin header	2x I^2C, 12x GPIO, SPI, UART, 9x PWM	
Micro SD card slot	32G Micro SD card (Optional)	
M.2 slot	M.2 E Key	
Power Requirements		
Power ON/OFF button	1x Power ON/OFF button	
Reset button	1x Reset button	
DC Input	DC 12V +/- 5% input	
AC Input	24W AC/DC adapter	
Mechanical		
Dimensions(WxDxH)	118(W) x 81.8(L) mm	
Environmental		
Operating Temperature	0°~60°C (32°F~140°F)	
Operating Humidity	10%~90%, non-condensing	
Storage Temperature	-40~85°C (-40°F~185°F)	
EMI	Compliant with FCC Part 15B Class A	
EMC	Compliant with EN 55032/55024	
Vibration	IEC60068-2-6: 3G, 10-500Hz, 3 axes total, non-operational IEC60068-2-64: 1Grms, 10-500Hz, 1 hour/axis, operational	
Shock	IEC-60068-2-27 Operating 50G, half sine 11 ms duration	
Software		
SDK	Neuron SDK	
Environment	Ubuntu 18.04 LTS (not pre-installed)	
Middleware	ROS/ROS 2	