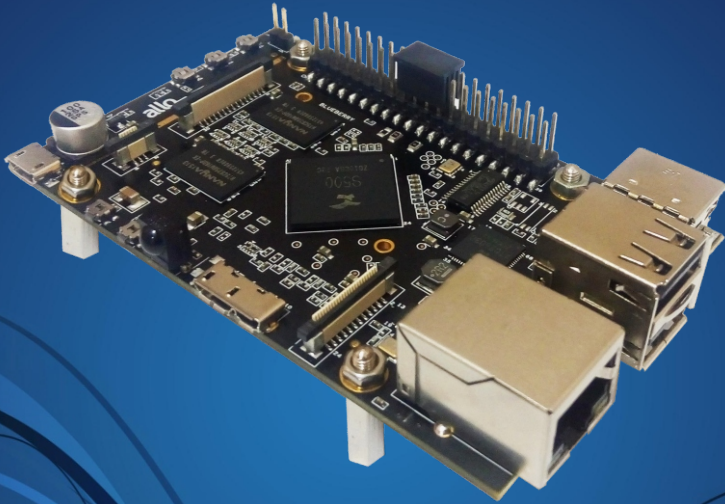


SPARKY



Quad-core Cortex-A9 ARM processor

Built for Continuous usage

1080p@60fps HD decoding capability

Offers the most physical interfaces

Expansion shields ready (LCD, Camera, DAC, AMP, eMMC...)

USB Ethernet port

Supports Linux & Android

Overview

SPARKY is a powerful platform for a wide range of applications in areas such as: Telecom, Networking & NAS, Audio/Media, Gaming, Home Automation, Security and more... Very affordable, powerful and versatile, SPARKY has what it takes to make your project work!

SPARKY is also the new platform for ALLO VoIP Hardware including PBX systems based on Asterisk™ as well as Network Security products such as our STM (SIP Threat Manager), UTM (United Threat Manager) and SBC (Session Border Controller).

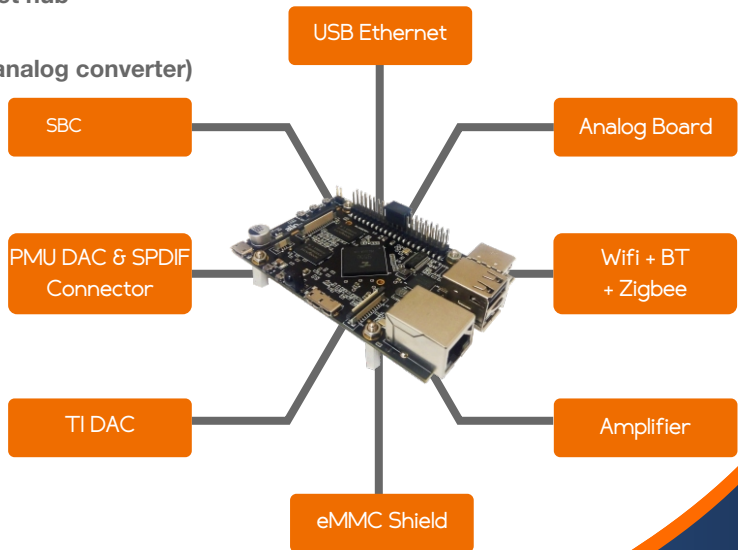
With over a decade of embedding experience, our team is constantly porting new and exciting software opening the door to yet more applications.

SHIELDS

One of the main advantages of SPARKY are the add on boards also called Shields that can convert into a ready to use product.

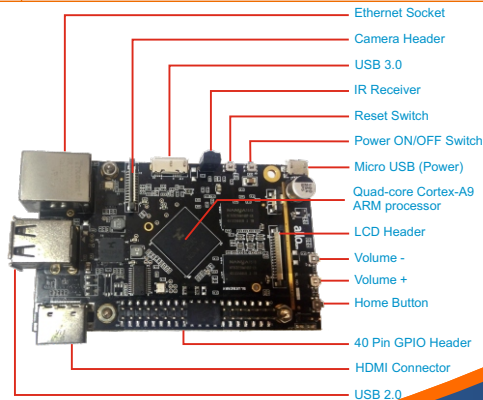
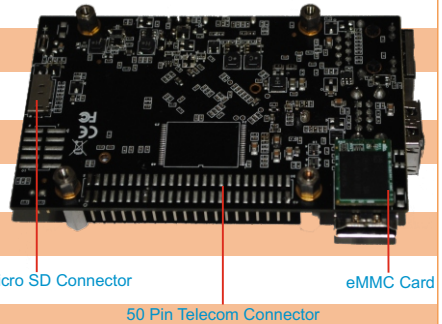
All these Shields are HAT compliant and can also be used on the Raspberry Pi™ boards.

- 5 MP camera
- 8" Touch screen LCD
- USB/gigabit Ethernet hub
- Analog telecom
- Audio DAC (digital analog converter)
- Audio Amplifier
- Wifi + BT + Zigbee
- eMMC storage

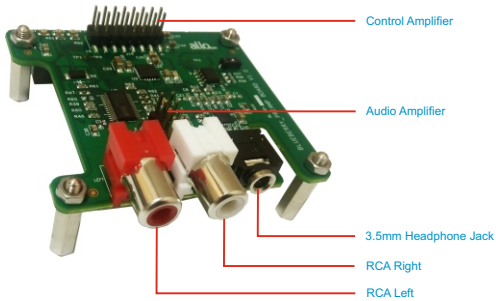


Technical Configuration

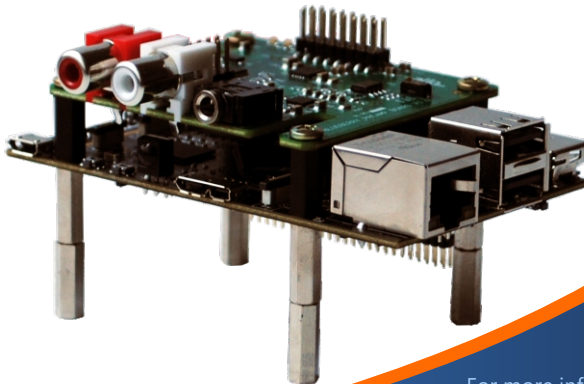
CPU	Quad-Core Cortex-A9R4 processor with NEON (advanced SIMD) co-processor
Ethernet	1 port fast ethernet, 10/100 Mbits
HDMI	1 port
eMMC	Supports 8/16/32/64 Gigabyte Module (Plugable)
uSD	Supports 8/16/32 Gigabyte Module
DDR	1GB, 2GB Memory support
RPI	On board 40 Pin Raspberry PI card connector
USB 2.0	2 Port (OTG) Host
USB 3.0	1 Port USB Host
GPU	PowerVR SGX544, 500Mhz
Display resolution	1080p@60fps
Uext	Uext connector olimx board
IR	1 port infrared interface
LCD	34 Pin LCD connector
Camera	24 pin 5Mpixel Camera interface
Power	microUSB 5V 1.5A
Telecom connector	50 Pin
Dimension	95x58x16mm
Temperature	0 to 40c
NAND Flash	Optional
Weight	49 gms



TI DAC

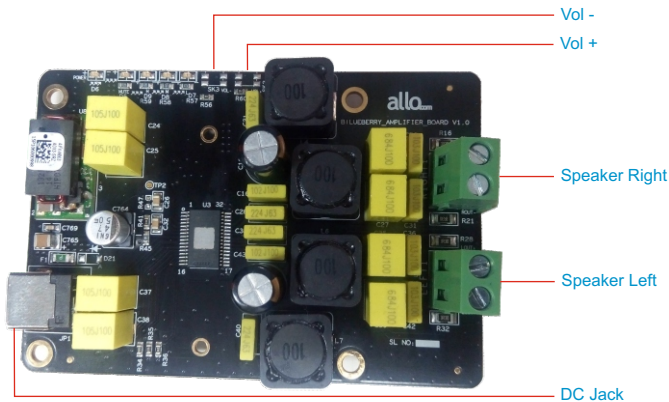
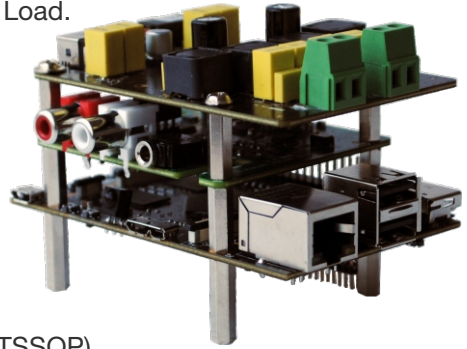


- Dedicated 384 kHz/32bit high-quality DAC PCM5122 for best sound quality.
- Available with different output connectors: RCA, 3.5mm phone jack and 2x50W speaker and Optical TOSlink transmitter
- Stereo Headphone Output Power is 138mW.
- Stereo Headphone Half Power THD + N @ 1 kHz (%) (kHz) -> 0.008.
- Stereo Headphone SNR is 93dB.
- Stereo Headphone PSRR is 109dB.
- THD+N @ - 1dBFS are -93dB.
- Sampling Frequency ranges from 8 kHz to 384 kHz.
- Small 28-pin TSSOP Package Ultra-low-noise voltage regulator for optimal audio performance.
- Integrated EEPROM for automatic configuration (with write-protection).
- Operating Temperature Range is -25C to 85C.
- The PMU DAC board size: LWH = 65mm * 58mm * 16mm



AMPLIFIER

- 138mW Direct Path™ Stereo Headphone Amplifier
- Output Configuration 2 × 50 W into a 4-Ω BTL Load.
- High-quality, highly efficient 50W Class-D Stereo amplifier.
- Software Volume control using high quality Digital POT.
- Efficiency: > = 90%
- The signal to noise ratio: 102dB
- Supply voltage: DC 24V
- Thermally Enhanced Packages DAD (32-Pin HTSSOP)
- High-precision chip resistors resistor selection. Main circuit employs a precision of ± 1% THIN film resistors .Its ensure the best signal to noise ratio.
- High quality Film capacitors for premium audio signal path.
- High quality heat sink used for maintaining continuous output power of the Amplifier.
- Support for Filter-free operation.
- Support for POP free operation.
- The amplifier board size: LWH = 85mm * 58mm * 16mm
- -40°C to 85°C Ambient Temperature Range.

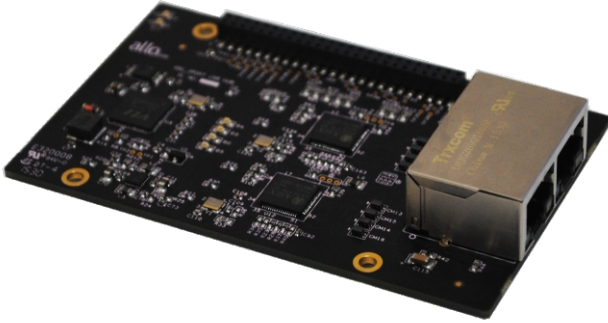


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For more information please contact

Global: globalsales@allo.com

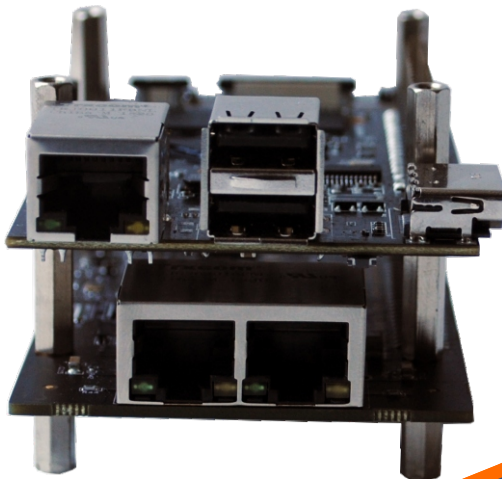
USB ETHERNET



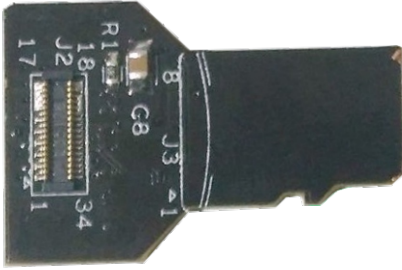
Technical Configuration

No of Ethernet ports	2
USB Standard	USB 3.0
Ethernet speed	10/100/1000Mbps
Input voltage (from main board)	5V

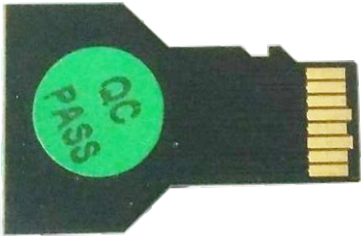
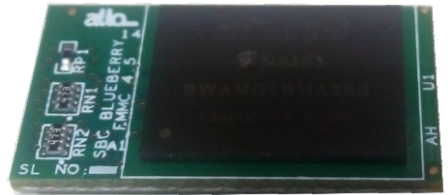
The USB to Ethernet size: LWH = 85mm * 58mm * 16mm



EMMC SHIELD



- eMMC Connector for 8/16/32/64 Gigabyte
- The eMMC board size: LWH = 95mm * 58mm * .6mm

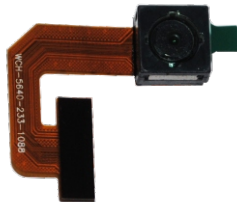


LCD SHIELD

- Plug & Play directly to the LCD connector of our SPARKY
- 7" Display
- 1024 * 600 resolution
- Touch Pad included
- High end glass frame with stand

CAMERA SHIELD

- Plug & Play directly to the camera connector of our SPARKY
- 5MP
- Auto Focus



Operating System Support

- > **Ubuntu 14**
- > **Arch Linux ARM**
- > **OpenELEC**
- > **Fedora**
- > **Android**

COMING SOON

- **Rune Audio**
- **Kodi Player(XMBC)**
- **PiPlay**
- **SDL 1.2 and SDL 2.0 Support**
- **Volumino**
- **squeezebox**
- **live555**
- **media tomb**
- **Frame works**
- **node.js**
- **ruby on rails**
- **openframeworks**
- **Webiopi IoT**
- **openCV**