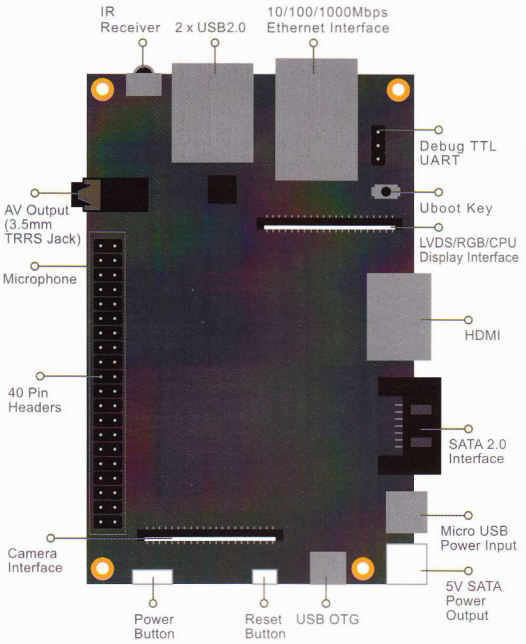
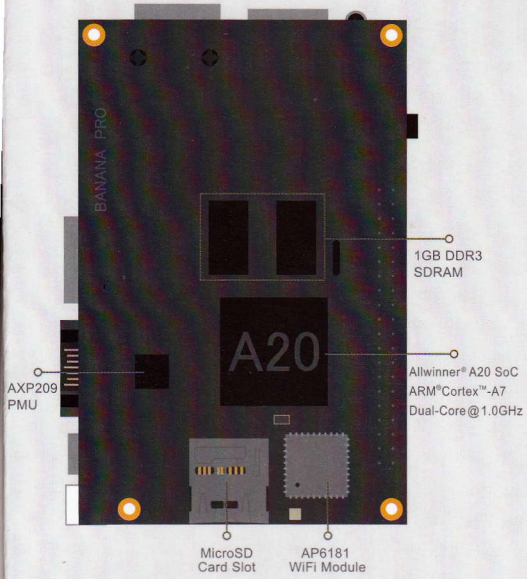
Introduction

Banana Pro™ is an update version of Banana Pi™ designed by LeMaker Team ,and it has more enhanced features. Banana Pro™ has an excellent compatibility with multiply software supports. Basically all mainstream Linux-based operating system can run on Banana Pro™, with the version of Android, Lubuntu, Debian, Berryboot, OpenSuse, Fedora, Gentoo, OpenWRT. Banana Pro™ also supports BSD system. In order to make user more convenient, LeMaker Team provide some customized operating system images with the help of world-wide users , such as LeMedia (XBMC), Scratch, Bananian, Open MediaVault. Please visit *http://www.lemaker.org/resources/9-38/image_files.html* to download your favourite operating system.

Banana Pro™ applies to a wide range of fields, including: low-cost computer for education purpose, scratch, multimedia applications, Arduino, game emulator, home server, robot and so on.





Attentions

- Please use a branded power adapter (5V, 2A) with a quality USB connection cable to supply your Banana Pro. The Banana Pro may not boot up normally or may freeze during the operation with a fake power adapter. A fake power adapter also may led to some functions not work.

- Please pay attention to the micro USB port for powering and the micro usb port for OTG. Please do not confuse them.

- Please be aware that the SATA power output on the Banana Pro can only provide +5V. So in general, the Banana Pro can only stably power the 2.5 inch SSD. In certain case, the 2.5 inch HDD is also possible, but some brands and models require too much current, so please have a try. If you want to use a 3.5 inch hard disk drive, you need use an external power supply to your 3.5 inch hard disk drive. Please also use the right SATA connection cable.

- Please use a right HDMI cable or good quality HDMI to VGA cable, or you would not see the display. The HDMI version on the Banana Pro is 1.4.

- Please do not confuse the camera interface and the LVDS/RGB/CPU display interface.The one beside Ethernet interface is LVDS/RGB/CPU display interface.

Dimensions	92mm x 60mm
Website	www.lemaker.org

Specifications

SoC	Allwinner® A20
CPU	ARM® Cortex™-A7 Dual-Core @ 1.0GHz
GPU	ARM® Mali400MP2 Complies with OpenGL ES 2.0/1.1
SDRAM	1GB DDR3 (shared with GPU)
Power	5V @ 2A via MicroUSB (DC in Only) and/or MicroUSB (OTG)
PMU	AXP209

Features

Display	Support multi-channel HD display: HDMI 1.4 (Type A - full) Composite video (PAL and NTSC) (via 3.5 mm TRRS jack shared with audio out) LVDS/RGB/CPU display interface (DSI) for raw LCD panels 11 HDMI resolutions from 640×480 to 1920×1080 plus various PAL and NTSC standards
Video	HD H.264 2160p video decoding Mutil-format FHD video decoding, including Mpeg1/2, Mpeg4, H.263, H.264, etc H.264 high profile 1080p@30fps or 720p@60fps encoding
On board Network	10/100/1000Mbps ethernet (Realtek RTL 8211E/D) WiFi 802.11 b/g/n (AP6181)
Camera	Parallel 8-bit camera interface
On board Storage	MicroSD (TF) card, SATA 2.0
Audio outputs	HDMI,analog audio (via 3.5 mm TRRS jack shared with composite video out),I2S audio (also potentially for audio input)
Audio input	On board micphone
USB	2 USB 2.0 host, 1 USB 2.0 OTG (all direct from A20 chip)
Low-level perpherials	40 pin headers. 28×GPIO, some of which can be used for specific functions including UART, I2C, SPI, PWM, CAN, I2S, SPDIF. LRADC, ADC, LINE-IN,FM-IN,HP-IN.
Buttons	Reset button Power button U-boot button
Leds	Power status led (red) User defined led1 (blue) User defined led2 (green)
Other	IR receiver, Bluetooth (optional)

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USEFUL LINK:

- Quick start guide:
  http://www.lemaker.org/resources/9-39/banana_pi_quick_start_guide.html
- Download page:
  http://www.lemaker.org/resources/9-38/image_files.html
- Forum discussion:
  http://forum.lemaker.org/forum.php

- Wiki pages:
  http://wiki.lemaker.org/Main_Page
- Source code on Github:
  https://github.com/LeMaker

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