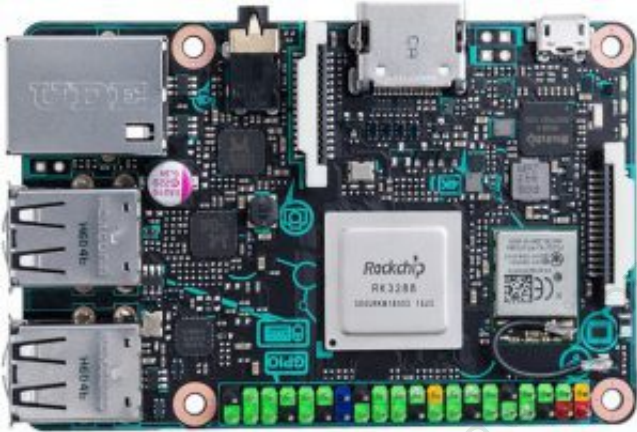


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## Pre-Testing Review of Asus Tinkerboard

Hello readers,

I have one [Asus Tinker Board](#) coming today so expect an update regarding this pre-testing review.



\*Image courtesy of wikimedia commons

- CPU  
Rockchip Quad-Core RK3288 processor \*see below
- Memory  
2GB Dual Channel DDR3
- Graphic

Integrated Graphics Processor

ARM® Mali™-T764 GPU\*<sup>1</sup> \*see below

- Storage  
Micro SD(TF) card slot
- LAN  
RTL GB LAN
- Wireless Data Network  
802.11 b/g/n, Bluetooth V4.0 + EDR

- 
- Audio  
RTL ALC4040 CODEC
  - USB Ports  
4 x USB 2.0
  - Internal I/O Ports
    - 1 x 40-pin header :**
      - up to 28 x GPIO pins
      - up to 2 x SPI bus
      - up to 2 x I2C bus
      - up to 4 x UART
      - up to 2 x PWM
      - up to 1 x PCM/I2S
      - 2 x 5V power pins
      - 2 x 3.3V power pins
      - 8 x ground pins
    - 1 x 2-pin contact pin :**
      - 1 x PWM
      - 1 x S/PDIF
    - 1 x 15-pin MIPI DSI**
    - 1 x 15-pin MIPI CSI**
  - Accessories  
Passive heatsink\*<sup>2</sup>  
User manual
  - Weight  
55g

## Rockchip RK3288

- 28 nm [HKMG](#) process.
- Quad-core [ARM Cortex-A17](#), up to 1.8 GHz
- Quad-core ARM Mali-T760 MP4 GPU clocked at 600 MHz supporting [OpenGL ES](#) 1.1/2.0/3.0/3.1, [OpenCL](#) 1.1, [Renderscript](#) and [Direct3D](#) 11.1<sup>[1]</sup>
- High performance dedicated 2D processor
- 1080P video encoding for [H.264](#) and [VP8](#), [MVC](#)
- 4K H.264 and 10bits [H.265](#) video decode, 1080P multi video decode
- Supports 4Kx2K H.265 resolution
- Dual-channel 64-bit DRAM controller supporting [DDR3](#), [DDR3L](#), [LPDDR2](#) and [LPDDR3](#)
- Up to 3840x2160 display output, [HDMI](#) 2.0
- Support dual-channel LVDS/dual-channel MIPI-DSI/eDP1.1
- HW Security system, support HDCP 2.X
- Embedded 13M ISP and MIPI-CSI2 interface

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**Mali-T760** ([Excerpted from Arm Developer](#))

## About Mali-T760

The ARM® Mali™-T760 GPU preceded the Mali-T860 & Mali-T880 on the Midgard GPU architecture. It delivers 400% the energy efficiency of the previous generation of products. Scalable from 1-16 cores, the Mali-T760 introduces cohesive bandwidth saving technologies such as [ARM Frame Buffer Compression](#) and reduces the overall system level bandwidth and power cost of transferring spatially coordinated image data throughout the system.

## Key features

- Scalable from 1-16 cores to address device-specific requirements.
- Built on the proven Midgard architecture.
- Advanced, coherent L2 cache interconnect.

As a 32 bit version of Debian is one of the standard distributions of Linux on the Tinker Board we'll be reviewing it and developing something depending on the specs. I'm thinking either a mining controller, or a cluster... Or something equally *interesting*.



Tinker Board running off of a solar charger for smartphones

Special thanks to the Tinker Board team for their cooperation throughout the upcoming series where we'll dive into the details and ask them tons of questions to better inform you.