## **Amlogic M802**

Amlogic M802 (originally called AML8726-M8) - Quad-core ARM Cortex A9-based SoC with six-core ARM Mali-450 MP6 GPU (although listed as an octa-core GPU on Amlogic's website) running at 600 MHz. Supports 2GB DRAM and 4K2K display output. 64-bit DRAM interface, manufactured on a 28nm HPM process.

## **Features**

- 1. Quad-core Cortex A9@2.0GHz
- 2. Octa-core Mail-450 GPU@600MHz
- 3. 4K2K H564@30dps Decoding
- 4. Ultra Low Power
- 5. Trustzone and Trusted video path
- 6. Dual Channel DDR3/LPDDR3 Up to 4GB
- 7. 64 bit SDRAM Bandwidth
- 8. 1080P H.264 Encoding
- 9. Built-in HDMI 1.4b TX Up to 4K2K
- 10. CVBB output
- 11. Google Android 4.3
- 12. Google TV Version4
- 13. BGA package
- 14. 2.8nm HPM

## **Application**

- 1. Android TV box
- 2. OTT set top box
- 3. Tablet

## **Other Products**

| Items                         | M802  | M801   | M803   | M805   |
|-------------------------------|---|--|--|--|
| CPU                           | Quad Core Cortex-A9<br>Up to 2GHz                 | Quad Core Cortex-A9<br>Up to 2GHz            | Quad Core Cortex-A5<br>Up to 1.5GHz          | Quad Core Cortex-A5<br>Up to 1.5GHz          |
| GPU                           | Octo Mali-450<br>Up to 600MHz                     | Octo Mali-450<br>Up to 600MHz                | Quad Core Mali-450<br>Up to 400MHz           | Quad Core Mali-450<br>Up to 400MHz           |
| Memory                        | Dual 32-bit<br>DDR3, DDR3L, LPDDR2/3<br>Up to 4GB | 32-bit<br>DDR3, DDR3L, LPDDR2/3<br>Up to 2GB | 32-bit<br>DDR3, DDR3L, LPDDR2/3<br>Up to 2GB | 32-bit<br>DDR3, DDR3L, LPDDR2<br>Up to 2GB   |
| Storage                       | NAND Flash, BCH60<br>eMMC, SD, SPI Nor Flash      | NAND Flash, BCH60<br>eMMC, SD, SPI Nor Flash | NAND Flash, BCH60<br>eMMC, SD, SPI Nor Flash | NAND Flash, BCH60<br>eMMC, SD, SPI Nor Flash |
| Video Decoder                 | 4K2K H.264 AVC, VC-1,<br>MPEG1/2/4                | 1080P H.264, VC-1,<br>MPEG1/2/4              | 1080P H.265, H.264, VC-1,<br>MPEG1/2/4       | 1080P H.265, H.264, VC-1,<br>MPEG1/2/4       |
| Video Encoder                 | H.264, 1080P                                      | H.264, 1080P                                 | H.264, 1080P                                 | H.264, 1080P                                 |
| Network                       | 10/100 Ethernet                                   | 10/100 Ethernet                              | 100/100/1000 RGMII                           | 100/100/1000 RGMIII                          |
| TV Output                     | 4K2K HDMI1.4b, Analog                             | 1080P HDMI1.4b, Analog                       | 1080P HDMI1.4b, CVBS                         | 1080P HDMI1.4b                               |
| Package                       | 19mm x 19mm BGA                                   | Pin-to-Pin to M802                           | Pin-to-Pin to M802                           | 12mm x 12mm BGA                              |
| Supporting Panel<br>Interface | TTL, LVDS, MIPI-DSI, eDP                          | TTL, LVDS, MIPI-DSI, eDP                     | TTL, LVDS, MIPI                              | TTL, LVDS, MIPI                              |