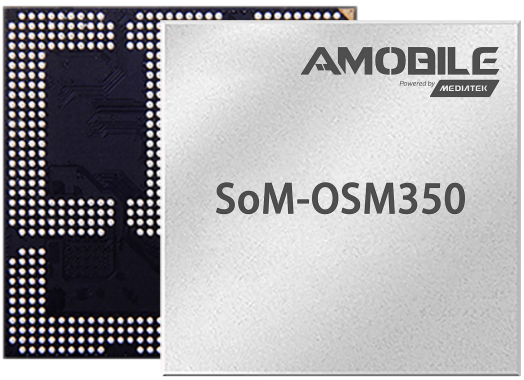
# SoM-OSM350




## Features & Highlights

- **High-Performance Computing**: Powered by 4x ARM Cortex-A53 cores at 2.0GHz, delivering reliable performance for demanding applications.
- **Advanced Graphics & Multimedia**: Integrated Mali-G52 GPU enables smooth FHD dual-display at 60fps and supports H.265 video decoding.
- **Edge AI Ready:** Embedded VP6 APU and HiFi4 DSP accelerate AI workloads and on-device intelligence for Edge AI applications.
- **Standards Compliant**: OSM revision 1.2 compliant, ensuring reliability and interoperability in system designs
- **Flexible OS Support:** Android13/Yocto4/Ubuntu22.04

## System

| | |
|---|---|
| Processor | MediaTek G350 |
| Security | • Arm TrustZone (CA53 TZ)<br>• Secure Boot +AVB<br>• DRM support for AES/SHA<br>• True random number generation (RNG)<br>• Manufacturing protection support/Secure Non-Volatile Storage (SNVS) |
| CPU | 4x CA53 (2.0G) |
| GPU | Mali-G52 MC1 |
| AI/NPU | Cadence Tensilica VP6 processor, 0.3 TOPS |
| Audio DSP | Tensilica HiFi4 Audio Engine DSP |

## Memory

| | |
|---|---|
| RAM | 2/4 GB LPDDR4X-3200Mbps |
| Strong | 8/32/64GB eMMC5.1 |

## Operating System

| | |
|---|---|
| OS | • Android 13<br>• Yocto 4.0 Kirkstone (Kernel 5.15.37)<br>• Ubuntu 22.04 |

## Network

| | |
|---|---|
| Ethernet | Megabit (10/100Mbps) Ethernet |

## Display

| | |
|---|---|
| MIPI DSI/LVDS | 1x MPIP DSI (pin mix w/ LVDS), up to FHD60 |

## Multimedia

| | |
|---|---|
| Video decode | FHD60, H.265/H.264/VP9 |
| Video encode | FHD60, H.265/H.264 |
| Camera | 2 x MIPI CSI |

## Peripheral

| | |
|---|---|
| USB | 1x USB 2.0 host, 1x USB2.0 OTG |
| UART | 1x Console, 2x general UART |
| SPI | 1x |
| $I^2S$ | 1x |
| $I^{2C}$ | 2x |
| SDIO | 2x (w/4 lane) |
| GPIO | 30x |

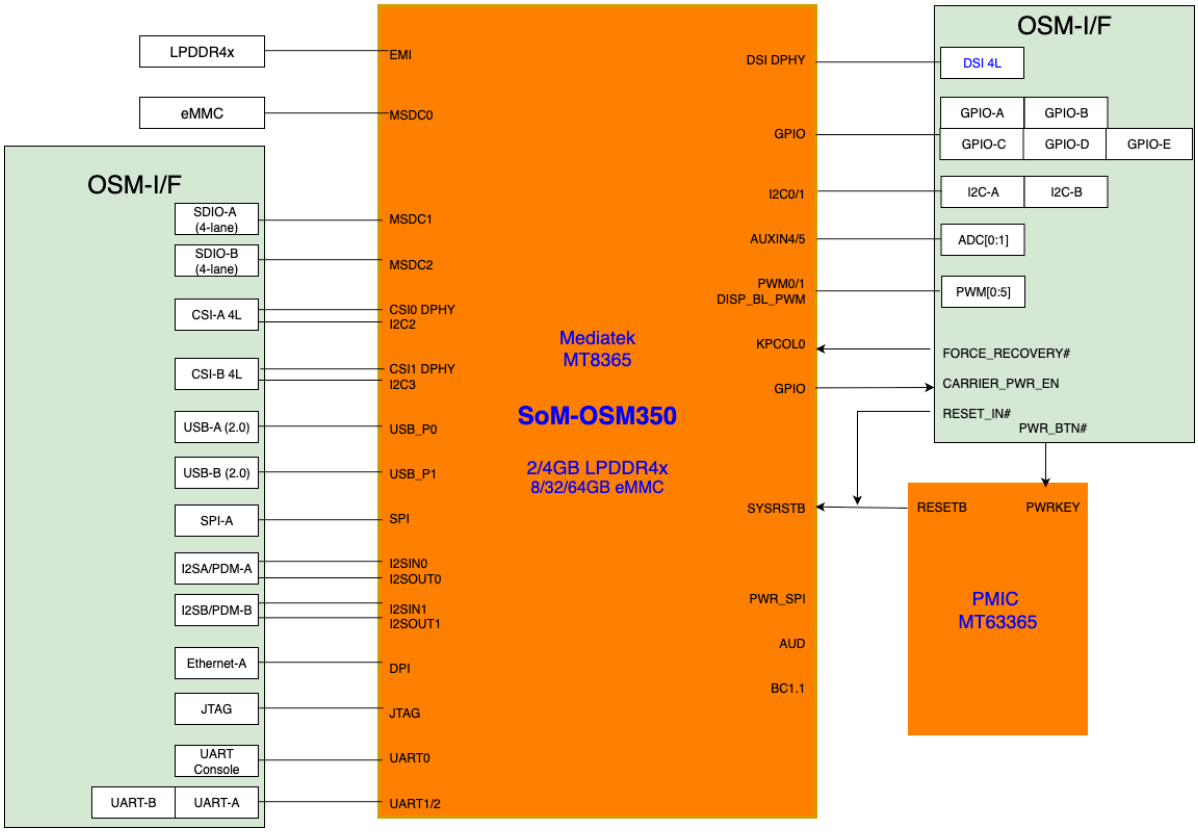
## Power

| | |
|---|---|
| | 5Vdc +/- 5% |

## Mechanical & Environmental

| | |
|---|---|
| From Factor | SGet OSM version 1.2 |
| Dimension (L x W) | OSM size-L: 45 x 45 mm |
| Weight | TBD |
| Operation Temperatue | • Standard: 0°C to +60°C<br>• Industrial: -40°C to +85°C (optional) |
| Humidity | • 5 - 90% RH operating, non-condensing<br>• 5 - 95% RH storage |
| Shock & Vibration | IEC 600682-2-64 & IEC-60068-2-27 |

*All specifications are subject to change without notice.Last update: August 14th, 2025* ***Preliminary***




SoM-OSM350 Block Diagram