

# i350

Mainstream Edge AI platform with integrated AI processor and DSP



**The i350 is an Edge AI platform designed for mainstream AIoT applications that require vision and voice edge processing, such as facial, object, gesture, motion recognition, LPR, voice activation and speed recognition, sound isolation, bio-tech and bio-metric measurements, and more.**

Built using an ultra-efficient 14nm process, this highly integrated Edge AI platform incorporates a dedicated APU (AI processor) and DSP to enable vision and voice edge AI, with considerably greater performance and power efficiency in common applications.

Support for high definition displays with touch interfaces and rich applications makes this an ideal platform for smart appliances, smart access, public interfaces such as kiosk, vending or POS within retail and commercial settings, or hubs in industrial and medical environments.

The Arm Mali G52 GPU offers a significantly higher performance (up to 800% more) as compared to industry peers, plus common API compatibility via OpenGL ES, OpenCL and Vulkan eases development opportunity. High definition cameras up to 13MP, plus fast video encoding using HEVC at Full HD @ 60fps enables next-generation applications that need detailed and reliable image and video capture capabilities.

General processing is provided by a fast 2GHz quad-core Arm Cortex-53 CPU. Brands can choose from a more extensive range memory and Flash options than offered elsewhere for greater freedom to meet BOM and performance requirements.

<b>Diverse Edge Processing</b>	<ul style="list-style-type: none"> <li>4X Arm Cortex-A53</li> <li>Arm Mali-G52 MC1 GPU</li> <li>MediaTek APU</li> <li>HiFi 4 Audio DSP</li> </ul>
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<b>Extensive Embedded Connectivity</b>	<ul style="list-style-type: none"> <li>Wi-Fi 5 (b/g/n/ac)</li> <li>Bluetooth 5</li> <li>GNSS</li> <li>FM</li> <li>Fast Ethernet MAC</li> </ul>
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<b>Diverse Flash &amp; Memory Support</b>	<ul style="list-style-type: none"> <li>eMMC 5.1, SLC/MLC/TLC Flash</li> <li>DDR4/LPDDR4(X) up to 3200MHz</li> <li>DDR3(L)/LPDDR3 up to 1866MHz</li> </ul>
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<b>Extensive Embedded Connectivity</b>	<ul style="list-style-type: none"> <li>UART</li> <li>I2C</li> <li>I2S</li> <li>8 channel TDM-in</li> <li>8 channel PDM-in</li> <li>eMMC/SD/SDIO</li> <li>MIPI DSI 4-lane, LVDS &amp; DPI</li> <li>MIPI CSI</li> <li>GPIO</li> <li>USB 2.0 OTD and Host</li> </ul>
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## MediaTek i350

<b>CPU</b>	4x ARM Cortex-A53 up to 2.0GHz, 512KB unified L2 cache, Arm NEON multimedia processing engine
<b>Memory</b>	DDR4/LPDDR4(X) up to 3200MHz DDR3(L)/LPDDR3 up to 1866MHz
<b>GPU</b>	Arm Mali-G52 MC1 up to 800MHz
<b>APU</b>	APU up to 500MHz (285 GMACs)
<b>DSP</b>	HiFi 4
<b>Camera</b>	13MP @ 30fps
<b>Video Decoding</b>	1080P @ 60FPS, H.264/HEVC/MP4/VP9
<b>Video Encoding</b>	1080P @ 60FPS, H.264/HEVC
<b>Display</b>	Dual 1920 x 1200
<b>Storage</b>	eMMC 5.1
<b>Connectivity</b>	Wi-Fi 5 (802.11 b/g/n/ac) up to 2x2 (MT7663) Bluetooth 5, GNSS options, FM radio