

Product Brief

MEDIATEK

MEDIATEK MT8385 (i-500)based System on Module

TESSOLVE introduces ultra-low power SOMs (System-On-Module) based on the MEDIATEK i500 Family which integrates Quadcore Arm Cortex-A53 and Quadcore Arm Cortex-A73 equipped with NEON engines operating at 2GHz.

The i500 (MT8385) is a powerful platform designed for portable, home or commercial IoT applications that requires high performance edge processing, advanced multimedia capabilities, multiple high-resolutions cameras, connected touchscreen displays, and multi-tasking OS. It's multi-core AI processor (APU) operates up to 500MHz and enables deep learning, neural network acceleration and computer vision applications.

TESSOLVE leverages its vast experience of product development in embedded multimedia systems for professional applications and systems combining audio/ video, graphics and HMI. The modules come with a complete software suite including Device Drivers, BSP and support for Android 9.0.

Product development is made easy, with the industry leading complete system solution packages from Tessolve.



Figure 1: MT8385 Nano SoM

The MT8385_NANO_SOM modules are available in Octa Core CPU with wide variety of IO feature sets.

Technical Information	
Module Name	MT8385_Nano_SOM
Processor	<ul style="list-style-type: none"> • 4 x Cortex-A73 up to 2.0GHz • 4 x Cortex-A53 up to 2.0GHz
Graphics	<ul style="list-style-type: none"> • ARM Mali – G72 MP3, 400 Mega pixel/sec @800MHz • Open GLES 3.1/3.0/2.0/1.1
Memory	<ul style="list-style-type: none"> • LPDDR4x up to 8GB
Display Interface	<ul style="list-style-type: none"> • 1 x MIPI DSI (4-data lanes), 1.2Gbps per lane • HDMI 1.4
eMMC	<ul style="list-style-type: none"> • eMMC5.1 (Boot & Storage)
Camera	<ul style="list-style-type: none"> • 3 x MIPI CSI interface, 2.8Gbps per lane (4 lane)
Video	<ul style="list-style-type: none"> • Encoder: 1080p 30fps H.264 • Decoder: 1080p 30fps H.264, H.265/HEVC, MPEG 1/2/4
SD card	<ul style="list-style-type: none"> • 1 x SDIO interface (SDIO 2.0/3.0 protocols)
USB	<ul style="list-style-type: none"> • 1 x USB 2.0
WiFi/ BT	<ul style="list-style-type: none"> • MT6631 (WiFi-11ac), Wi-Fi :2.4GHz, 5GHz • Bluetooth :4.2 (low energy), 5.0(Low energy)
GNSS	<ul style="list-style-type: none"> • Supports GPS/ GLONASS
Other Interfaces	<ul style="list-style-type: none"> • 4 x I2C • 1 x SPI • 1 x UART • 29 x GPIO
Operating Voltage Range	<ul style="list-style-type: none"> • 3.8 V
Temperature Range	-20 Deg C to +85 Deg C
Form Factor	50 mm x 28 mm

RoHS



RoHS Compliant

Module Architecture Diagram

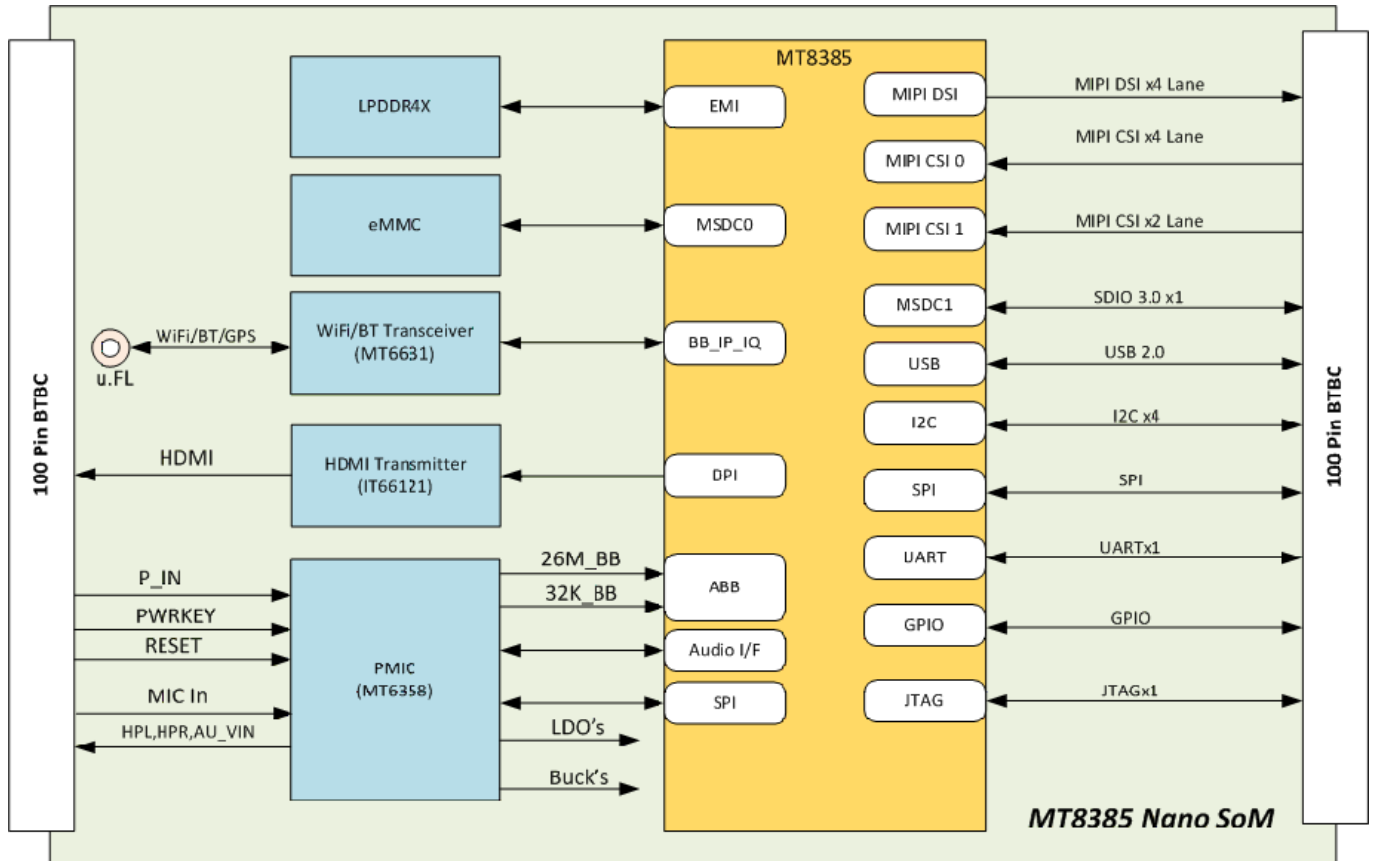


Figure 2: MT8385 Nano SoM Block Diagram

Included Software Packages – TESSOLVE Differentiators!

TESSOLVE provides ready to use SDK for evaluation and application development based on Android Pie 9.0

Ordering Information

Article	Part No**.	Description
MT8385 Nano SoM	M2-I5M8A-2G-16G-C-S	MT8385, 2GB RAM, 16 GB eMMC, Commercial Grade, 50 mm x 28 mm

**Contact TESSOLVE for other possible memory and temperature configurations

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