

# GM310-8MM



NXP i.MX 8M mini applications processors  
Gaming Embedded System



## KEY FEATURES



### ARM-Based System

Support Yocto Linux 2.5



### Data Sustaining

NVRAM 256KB and retain data at least 1 Years during AC off



### High Security

Reliable Data Security (RSA key, SHA256, TPM 2.0)



### Rich I/O Connectivity

2 GbE, 2 COM, 3 USB 2.0, 1 Line out, 1 uSD



## SPECIFICATION

SYSTEM	Processor	NXP i.MX 8M mini applications processors NXP i.MX 8M mini Quad Cortex-A53 1.8GHz (Commercial)	
	Memory	1GB Memory Down (up to 4GB) Single Channel LPDDR4	
GRAPHICS	Controller	2D-GC320 3D-GC NanoULTRA	
	Feature	OpenGL <sup>®</sup> ES 2.1 VPU Decode: 1080p60 HEVC, H.264, VP9, VP8 VPU Encode: 1080p60 H.264, VP8	
	Display	1 x LVDS (HDMI by request)	Resolution supports up to 1920 x 1080 @60Hz
STORAGE	Interface	Support eMMC 5.1 8GB on board	
EXPANSION	Interface	1 x Mini-PCIe Support Full/Half Size Wifi + BT / LTE	
AUDIO	Audio Codec	Cirrus Logic WM8524	
ETHERNET	Controller	1 x RTL8111 Ethernet (10/100/1000Mbps)	
LED	Indicators	1 x Status LED	
I/O	Ethernet	2 x GbE (RJ-45)	
	Serial	1 x RS-232/422/485 (Header) 1 x RS-232 (Header)	
	USB	2 x USB 2.0 1 x USB 2.0 (Right Angle)	
	Display	1 x LVDS (HDMI by request)	
	Audio	1 x Header (Line-out)	
	Cooling	Fanless	
	GAMING	NVRAM	256KB Coin Battery backup to Retain Data for 2 years during AC off
DI/DO		4-bit Digital Input 4-bit Digital output	
SECURITY	TPM	TPM 2.0	
POWER	Type	12V DC IN	
	Connector	4-pin Micro-Fit header	
OS SUPPORT	Linux	Linux Yocto 2.5 (Kernel 4.14.98)	
ENVIRONMENT	Operating Temperature	-5~60°C	
	Storage Temperature	-20~85°C	
	Relative Humidity	5%~90%	
MECHANISM	Mounting	Wall Mount	
	Dimensions (W x H x D)	143mm x 100 mm x 35 mm	
	Weight	0.45 kg	
STANDARDS AND CERTIFICATIONS	Shock	<b>Operation:</b> IEC 60068-2-27 Test Ea: Shock test Half-sine, 3G @ 11ms, 18 Shock ±X, ±Y, ±Z (each axis 3 times)	
		<b>Non-Operation:</b> IEC 60068-2-27 Test Ea: Shock test Half-sine, 5G @ 11ms, 18 Shock ±X, ±Y, ±Z (each axis 3 times)	
	Vibration	<b>Operation:</b> IEC 60068-2-64 Test Fh: Vibration Board-Band Random Test Random, 1Grms @ 5~500 Hz, 30min. <b>Non-Operation:</b> IEC 60068-2-6 Test Fc: Vibration Sinusoidal Test Sweep sine, 2Grms @ 10~500Hz, 30min.	
Certifications	CE, FCC class A (ongoing)		