GM310-8MM

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

KEY FEATURES

ARM-Based System

Support Yocto Linux 2.5

Data Sustaining

SRAM 256KB and retain data at least 2 Years during AC off

High Security

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

Rich I/O Connectivity

2 GbE, 3 USB 2.0, 1 Line out, 1 uSD,
1 RS-232/422/485 (Provide the hardware circuit design for the SAS 9-bit interface),
1 RS232 with 8 data bits

PANEL

Front View

Rear View

Side View

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® 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 16GB 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 LAN7500(10/100/1000Mbps) 1 x AR8031(10/100/1000Mbps)	
LED	**Indicators**	1 x Status LED	
I/O	**Ethernet**	2 x GbE (RJ-45)	
	Serial	1 x RS-232/422/485 (Provide the hardware circuit design for the SAS 9-bit interface) 1 x RS232 with 8 data bits	
	USB	2 x USB 2.0 1 x USB 2.0 (Right Angle)	
	Display	1 x LVDS (HDMI by request)	
	Audio	1 x Audio jack (Line-Out)	
	Cooling	Fanless	
GAMING	**SRAM**	256KB Coin Battery backup to Retain Data for 2 years during AC off	
SECURITY	**TPM**	TPM 2.0	
POWER	**Type**	12~24V 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**	**Operation:** IEC 60068-2-27 Test Ea: Shock test Half-sine, 3G @ 11ms, 18 Shock ±X, ±Y, ±Z (each axis 3 times) **Non-Operation:** IEC 60068-2-27 Test Ea: Shock test Half-sine, 5G @ 11ms, 18 Shock ±X, ±Y, ±Z (each axis 3 times)	
	Vibration	**Operation:** IEC 60068-2-64 Test Fh: Vibration Board-Band Random Test Random,1Grms @ 5~500 Hz, 30min. **Non-Operation:** IEC 60068-2-6 Test Fc: Vibration Sinusoidal Test Sweep sine, 2Grms @ 10~500Hz, 30min.	
	Certifications	CE, FCC class A (ongoing), RoHS, UKCA	

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