

PQ7-M108

Qseven module by Qseven 2.1 based on Intel® Atom® / Pentium® / Celeron® processors (Apollo Lake) with LPDDR4 SDRAM up to 8GB, 24bit LVDS, DP/HDMI



FEATURES

- On Board LPDDR4 DRAM and up to 8GB
- 24-bit LVDS, HDMI/DP output
- Four PCI Express lanes
- Support three USB 3.0 or four USB 2.0
- On Board eMMC 5.0 (Optional)



PQ7-M108 is designed with Intel® Atom®/ Pentium®/ Celeron® processors (Apollo Lake) which featured with higher graphic performance and wider memory bandwidth than the previous platform.

Benefit from Intel Apollo Lake industrial grade processor design, the operating temperature supports -40°C to 85°C. With qualified industrial-grade components selecting, PQ7-M108 is aimed to be widely applied on automation, security, transportations and so to different kinds of harsh environment applications.

General

Product	PQ7-M108				
Form Factor	Qseven® 2.1, 70 x 70 mm				
Processor	Intel® Atom®			Intel® Pentium®	
	E3950	E3940	E3930	N4200	N3350
Core	4	4	2	4	2
Freq.	1.60 GHz	1.60 GHz	1.30 GHz	1.10 GHz	1.10 GHz
Turbo	2.00 GHz	1.80 GHz	1.80 GHz	2.50 GHz	2.40 GHz
Cache	2MB	2MB	2MB	2MB	2MB
Processor Graphics	Intel® HD Graphics 505	Intel® HD Graphics 500	Intel® HD Graphics 500	Intel® HD Graphics 505	Intel® HD Graphics 500
Graphics Base Frequency	500 MHz	400 MHz	400 MHz	200 MHz	200 MHz
Graphics Max Dynamic Frequency	650 MHz	600 MHz	550 MHz	750 MHz	650 MHz
HW Encoding	HEVC, H.264, MVC, VP8, MJPEG				
HW Decoding	HEVC, H.264, MVC, MPEG2, VP9, VC1, WMV9, MJPEG				
HW Acceleration	Intel® Gen 9 LP Graphics supporting DirectX 12, OpenGL 4.3 OpenCL 2.0, OpenGL ES 3.0				
Processor TDP	12W	9.5W	6.5W	6W	6W
BIOS	AMI Aptio5 BIOS				
ECC Memory Supported	YES				
Memory	On Board LPDDR4 DRAM and up to 8GB				

I/O Interface

SATA	2x SATA III		
USB	3 x USB 3.0 4 x USB 2.0		
Ethernet	1x 10/100/1000 GbE (Intel® I210-AT/IT)		
Serial I/O	GPIO	N/A	
	I ² C	Baud rate: 400KHz	
	SMBus	Baud rate: 100KHz	
	UART	1x UART	
PEG	N/A		
PCI Express	4 x PCIe x1 Gen2		
Display	LVDS	eDP	3840 x 2160p @ 60Hz
	HDMI	DP	4096 x 2160 @ 60Hz
		HDMI	3840 x 2160p @ 30Hz
Security	N/A		

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MECHANICAL & ENVIRONMENT

Dimension	70 x 70mm
Power DC IN	+5VDC ± 5%
Storage Temperature	-40°C to 85°C
Operating Temperature	-40°C to 85°C
Certification	Contact us
MTBF	Contact us
Vibration	Contact us
OS	Windows 10 IoT Enterprise/ Windows 10 IOT Core

ORDERING GUIDE

Product	Ordering P/N	Status
PQ7-M108-N3350-4G-8G	AB7-3019Z	Available
PQ7-M108-N4200-4G-8G	AB7-3054Z	Available
PQ7-M108-E39xx-xG-xG	Contact us	Available
Accessory	Ordering P/N	Status
Heat Spreader	B8308940 (for N3350/N4200) B8309030 (for E3930/E3940/E3950)	Available
Heat Sink Set	B8308970 (for N3350/N4200) B8308980 (for E3930/E3940/E3950)	Available
PQ7-C201	AB1-3B45	Available

BLOCK DIAGRAM

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