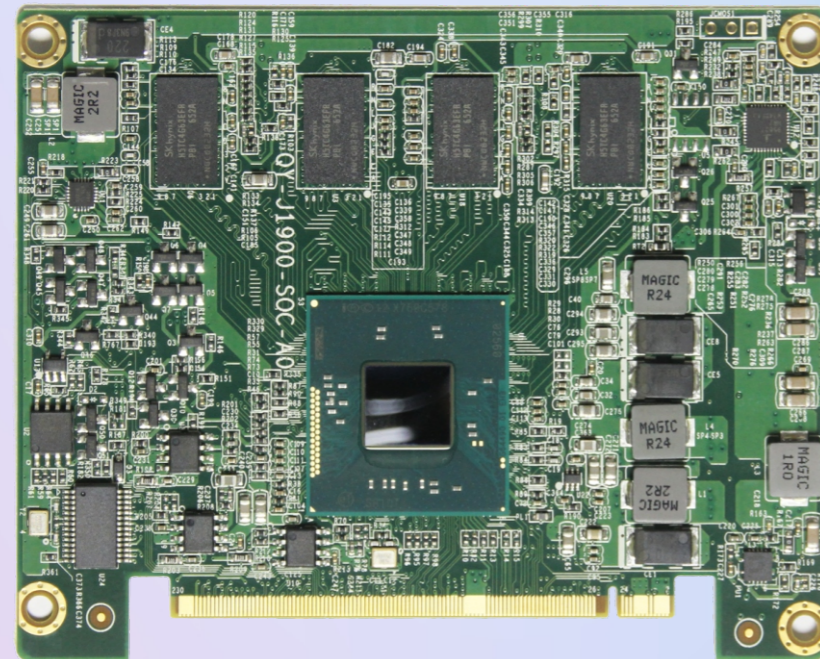


Modular industrial motherboard



Software APIs:



KTB-3190

Based on Intel Bay Trail platform,

Onboard Intel Celeron J1900 processor onboard 2G/4G RAM

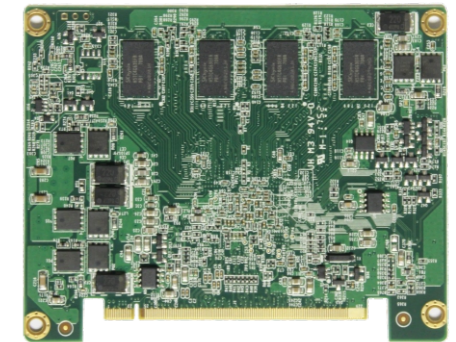
With the computer in various industries, the application of various fields is more and more extensive. The trend of product differentiation is becoming more and more obvious. This has brought a lot of trouble to the industrial computer field, whether it is product development, procurement and product after-sales service and maintenance. First of all, the product model has multiplied, and the research and development cost has increased into a geometric base; Secondly, purchasing and management and inventory management bring multiple management costs; Thirdly, too many product models have also brought a relatively big test to production and after-sales service and maintenance. At present, the solution for most of the industry is to use the Qseven architecture, although it is an open architecture, but due to the company's research and development level, and from the company's strategic interests, coupled with the confidentiality of the company's BIOS and technical information, it is difficult to achieve compatibility between the core board and the carrier board of different companies, or the customer gets the core board of a company. According to the needs of their own company to secondary development of the carrier board, without considerable order support, it is difficult to obtain the cooperation of the original factory, which has brought great difficulty to the secondary development. Another more important reason, the cost of Qseven architecture is extremely high, I think there are two reasons: first, the Qseven architecture connector is very expensive, second, the cost of technical services is high, to assist customers to do the secondary development of the carrier board, and according to customer needs to do BIOS adjustment.

Can there be a way to meet diverse customer needs, but also reduce research and development costs and management costs, so as to reduce the threshold of customer customization and procurement costs? We have another way, leaving aside the Qseven standard architecture, developed our own standard architecture, the board size is comparable to the Qseven module (100*80mm), and the number of scalability and functional interfaces is rich, which can basically meet the needs of most customers. The cost is nearly 1/2 lower than the Qseven module, and the customization is flexible. Because the core module is its own, the cost of changing the carrier board is low, the development cycle is short, the sample can be delivered in only one month, the threshold is low, the annual demand exceeds 1K, and it can be customized. In addition, the platform is widely compatible, and a customized carrier board can be compatible with almost all of our platforms and future Intel platforms, without repeated development due to different platforms, which is equivalent to customers having multiple products as long as they have one ODM carrier board.

Modular industrial motherboard

Feature:

- Based on Intel Bay Trail platform, onboard Intel Celeron J1900 processor
- Onboard 2G/4G memory
- Support VGA + LVDS + HDMI and other multi-channel display signals, support independent dual display
- Use our custom interface signal, the signal interface adopts high-speed Qseven connector
- Base plate can be expanded according to customer's ODM requirements
- Motherboard size: 100mm x 80mm



Specification:

Model	KTB-3190	
Specification Parameter	Form-Factor	Our custom interface signal
Processor	CPU	Intel J1900
	CPU Architecture	Intel Bay Trail
	GHz	2.0GHz
	Max Single Core Turbo Frequency	2.42GHz
	Core	4
	Three-level buffer	2MB
	CPU power dissipation	10W
Memory	BIOS	AMI UEFI 64Mbit
	Specification	Onboard 2G/4G memory
Graphic controller	Maximum memory	Maximum onboard 4G
	Graphics Memory	Integrated Intel HD Graphics
Display	VGA	1 * VGA, Maximum supported resolution: 1920 x 1080 @60Hz
	LCD	1 * LVDS Dual Channel 18/24-bit, Maximum supported resolution: 1920 x 1200 @60Hz
	HDMI	1 * HDMI, Maximum supported resolution: 1920 x 1080 @60Hz
Expansion Interface	PCI Express x1	2
	PCI Express x1	1 PCIe x1, to 3G/4G module
	PCI Express x1	1 PCIe x1, resource
	Audio Interface	Intel HD Audio Interface
	LPC	Yes
Serial Bus	SMBus	Yes
	I2C Bus	Yes
Network	Network card chip	Customized according to customer needs
	Speed	10/100/1000 Mbps
I/O	SATA	1 SATAIII 6.0Gb/s, 1 SATAII 3.0Gb/s
	USB3.0	1 Ports
	USB2.0	3 Ports; the number of USB devices can be increased through the USB Hub according to customer requirements
	SPI Bus	Yes
	GPIO	8-bit
	Watchdog	65536 level, 0~65535 sec
	COM Port	2~10 PCS can be customized (422/485 customized according to customer needs)
OS	Express Card	2 Ports
	OS	Win7/8/10, Linux
Power input	Power types	DC power supply
	Input voltage	DC 12V; DC 9~36V optional
Environment	Operating temperature	Operating temperature: 0 ~ 60° C (32 ~ 140° F), storage temperature: -40 ~ 85° C (-40 ~ 185° F)
	Operating humidity	Operation: 40° C @ 95% RH, non-condensing Storage: 60° C @ 95% RH, non-condensing
Dimensions	Dimensions	100 x 80 mm