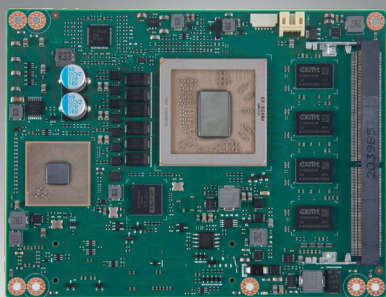


# SOM-GZ580

中国自主知识产权处理器  
KAIXIAN-6000 系列COM Express Basic 模块



Windows mbedded



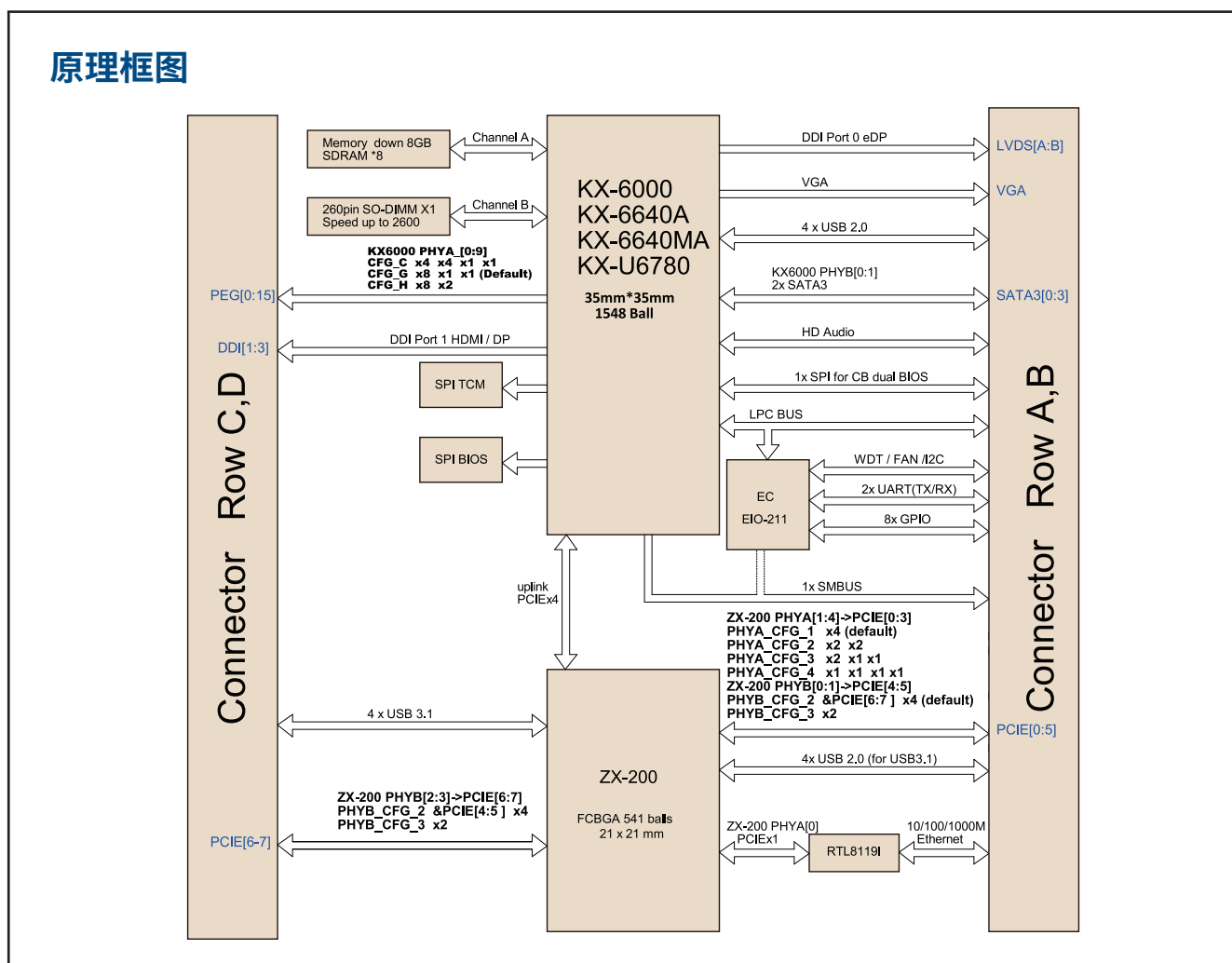
## 特点

- 中国自主知识产权处理器,KAIXIAN-6000 系列COM Express Basic 模块
- 支持最高CPU主频:8核2.7GHz
- 国产化率≥95%
- 硬件支持70W
- 最大支持16G内存(On board 8G + SO-DIMM 8G)

## 规格

产品类型	Form Factor	COM Express Basic Module			
	Pin-out Type	COM Express R3.0 Type 6 pin out			
处理器	CPU	KX-6640A	KX-6640MA	KX-U6580	KX-U6780A
	基础频率	2.6GHz	4 Core@2.2GHz 2 Core@2.6GHz	8 Cores@2.5GHz	8 Cores@2.7GHz
	Cores	4	4	8	8
	TDP	35W	25W	70W	70W
	二级缓存	4MB	4MB	8MB	8MB
	BIOS	AMI			
芯片组	PCH	ZX-200			
内存	技术	DDR4			
	最大容量	16GB (On Board 8G+So-DIMM 8G)			
	插槽	1 260P SO-DIMM( 1 on front side)			
显示	VGA	1 1920 x 1200@60Hz			
	EDP	1			
	DP/HDMI	1			
扩展槽	PCI Express Config	KX-6640A KX-6780A KX-U6580 KX-U6780A PEG Config C: x1, x1, x4, x4; PEG Config G: x1, x1, x8 PEG Config H: x2 x8			
		KX-6640MA: PEG Config C: x1, x1, x4 PEG Config F:x2,x4			
	音频接口	ZX-200:PCIE[0:7] PHYA->PCIE[0:3] PHYB->PCIE[4:7] PHYA_CFG_1: x4 PCIE[0:1]+PCIE[6:7] PHYB_CFG_2: x4 PCIE[2:5] PHYA_CFG_2: x2 PCIE[0:1] x2 PCIE[6:7] PHYB_CFG_3: x2 PCIE[2:3] x2PCIE[4:5] PHYA_CFG_3: x2 PCIE[0:1] x1 PCIE[6] x1 PCIE[7] PHYB_CFG_3: x2 PCIE[2:3] x2PCIE[4:5] PHYA_CFG_4: x1 PCIE[0] x1 PCIE[1] x1PCIE[6] x1 PCIE[7]			
LPC	HD Audio Interface Yes				
串行总线	SMBus	1			
网络	速度	1x10/100/1000M			
接口	SATA3.0	2			
	USB3.1	4			
	USB2.0	8			
	SPI Bus	2(BIOS,TCM)			
	GPIO	8bits(4进4出)			
	Watchdog	Yes(65536 Level,0-65535 sec)			
	COM Port	2 Ports(2-wire)			
	TCM	On Board(国民技术Z32H330TC)			
	Smart FAN	2 Ports; 1 port on COM module. Support 12V Fan, 1 port on carrier board			
	Type	Type: ATX: Vin, VSB; AT: Vin YSB			
电源	电源电压	Supply Voltage: Vin: 12V; VSB: 5V +/-5%.			
环境	工作温度	0 ~ 50°C (KX-6640MA,KX-6640A,KX-U6580@P1 state)			
	储存温度	-40 ~ 85° C (-40 ~ 185° F)			
	湿度	工作: 40 °C @ 95% relative humidity, 非凝结 储存: 60° C @ 95% relative humidity, 非凝结			
物理特征	震动	3.5 Grms			
	尺寸	125mm x 95mm(4.92" x 3.74")			
	重量	0.5 Kg			
ESD	Contact ±6kV by air ±8kV				
操作系统	Windows 7/Windows 10/麒麟 Linux				

## 原理框图



## 订货信息

料号	CPU	Cores	Frequency	CPU TDP	Chipset	DDR4	工作温度
SOM-GZ580-60D6A2(EOL)	KX-6640A	4Cores	2.6GHz	35W	ZX-200	Memory down 8GB + 260PIN SODIMM*1	-5°C~60°C
SOM-GZ580-60L2A2	KX-6640mA	4Cores	2.2GHz@4Cores 2.6GHz@2Cores	25W	ZX-200	Memory down 8GB + 260PIN SODIMM*1	-5°C~60°C
SOM-GZ580-60D5A2	KX-U6580	8Cores	2.5GHz	70W	ZX-200	Memory down 8GB + 260PIN SODIMM*1	-5°C~60°C
SOM-GZ580-60D7A2	KX-U6780	8Cores	2.7GHz	70W	ZX-200	Memory down 8GB + 260PIN SODIMM*1	-5°C~60°C

## 开发板

料号	描述
DMS-DB5800-00A1	COMe R3.0 Devel. Board Type6 Rev. A1

## 装箱单

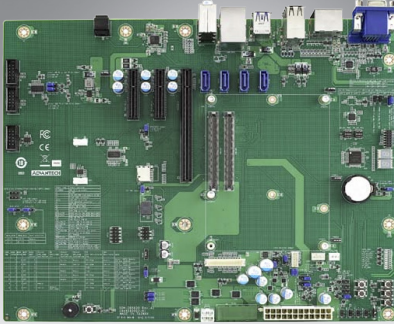
料号	描述	数量
-	SOM-GZ580 CPU module	1

## 可选配件

料号	描述	数量
1970005352T001	CL R3 Zhaoxin.-KX-6000 series 70W 125x95x22.78mm	1U Thermal solution
1970005392N001	HS R3 ZX-E.-KX-6000 series 70W 125x95x24.2mm SC	2U Thermal solution
1750009113-01	Fan Axial 80x80x25.4 12V4B-280L-9000RPM 92.69CFM	
1700033882-01	Fan Cable	

# DMS-DB5800

Type 6/10模块开发板



## 特点

- PICMG COM R3.0 Type6&Type10 pinout compatible
- COM ExpressR Basic/Compact/Mini 模块
- HDMI/DP,LVDS/eDP,VGA
- 扩展:PCIe Gen4 slot,USB3.2 Gen2
- 板载调试工具:BIOS Port 80 and Power State

## 规格

尺寸外型	ATX	
支持的模块类型	Form Factor	Compatible to Compress Basic,Compact,Mini Modules
	Pin-out Type	Type6/10 Pin-out Compatible
显示	VGA	1(D-SUB 15P Female)
	LVDS/eDP	18/24-bit single or dual Channel
	HDMI	1
	Display Port	2
网络	连接器	Up to 2.5G(Depends on module spec)
	速率	10/100/1000Mbps
扩展	PCI Express x16	1 Slot(Speed:Gen3)
	PCI Express x4	3 Slots(X41_1,1_2:Gen2, X41_3:Gen3)
	LPC	Yes
接口	SATA3.0	4 Ports
	USB3.1	Gen1:2, Gen2: 2
	COM Port	2 Ports
	GPIO	8-bit
	SDIO	1(Mux with GPIO)
	SPI Bus	Support SOP8 Socket
	TPM	TPM2.0
	Port 80	1
	Fan	2(1 Smart Fan from module side,1 fixed-voltage fan)
	Audio	Line-in,Line-out,MIC,SPDIF(Realtek ALC888 HD Audio Codec)
串行总线	SMBus	Yes
	I <sup>2</sup> C Bus	Yes
	CAN Bus	Yes(Mux with SER1)
电源	类型	ATX:Vin,VSB;AT:Vin
	支持电压	Vin:4.5V-20V;VSB:4.75V-5.25V,RTC Battery:2.0V-3.3V
环境	工作温度	Standard:0-60°C (32-140°F)
	存储温度	-40-85°C-40-185°C
	湿度	Operating: 40 °C @ 95% relative humidity, non-condensing Storage: 60 °C @ 95%relative humidity, non-condensing
	振动G值	3.5Grms
结构	尺寸	304.8mm X244mm(12"*9.6")