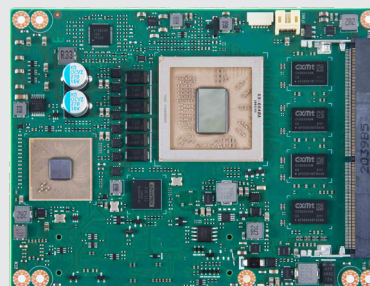


## I 特点

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



## I 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-6640MA                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | KX-U6580 | KX-U6780A |
|                       | 基础频率         | 4 Core @2.2GHz; 2 Core @2.6GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2.5GHz   | 2.7GHz    |
|                       | 核心数          | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 8        | 8         |
|                       | 典型功耗         | 25W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 70W      | 70W       |
|                       | 二级缓存         | 4MB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8MB      | 8MB       |
|                       | BIOS         | AMI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          |           |
| 芯片组                   | PCH          | ZX-200                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |           |
|                       | 技术           | DDR4                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |           |
| 内存                    | 最大容量         | 16GB (On Board 8G+So-DIMM 8G)                                                                                                                                                                                                                                                                                                                                                                                                                                                      |          |           |
|                       | 插槽           | 1x 260P SO-DIMM (1 on front side)                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          |           |
| 显示                    | VGA          | 1 1920 x 1200@60Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |          |           |
|                       | EDP          | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          |           |
|                       | DP/HDMI      | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          |           |
| 扩展                    | PCIe Config  | KX-U6580 KX-U6780A<br>PEG Config C: x1, x1, x4, x4; PEG Config G: x1, x1, x8<br>PEG Config H: x2 x8<br>KX-6640MA:<br>PEG Config C: x1, x1, x4 PEG Config F: x2, x4<br>ZX-200: PCIe[0:7] PHYA->PCIe[0:3] PHYB->PCIe[4:7]<br>PHYA_CFG_1: x4 PCIe[0:1]+PCIe[6:7] PHYB_CFG_2: x4 PCIe[2:5]<br>PHYA_CFG_2: x2 PCIe[0:1] x2 PCIe[6:7] PHYB_CFG_3: x2 PCIe[2:3] x2 PCIe[4:5]<br>PHYA_CFG_3: x2 PCIe[0:1] x1 PCIe[6] x1 PCIe[7]<br>PHYA_CFG_4: x1 PCIe[0] x1 PCIe[1] x1 PCIe[6] x1 PCIe[7] |          |           |
|                       |              | 音频接口                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |           |
|                       |              | HD Audio Interface                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |          |           |
|                       |              | LPC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          |           |
|                       |              | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          |           |
| 网络                    | Gigabit      | 1 x 10/100/1000M GIGABIT Ethernet Controller                                                                                                                                                                                                                                                                                                                                                                                                                                       |          |           |
|                       | SATA3.0      | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          |           |
| 接口                    | USB3.1       | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          |           |
|                       | USB2.0       | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          |           |
|                       | SPI Bus      | 2(BIOS, TCM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |          |           |
|                       | GPIO         | 8bits                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |          |           |
|                       | Watchdog     | Yes(65536 level, 0 ~ 65535 sec 使用 EC 方案 (EC-201))                                                                                                                                                                                                                                                                                                                                                                                                                                  |          |           |
|                       | 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         | ATX: Vin, VSB; AT: Vin, VSB                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |           |
|                       | 电源电压         | Supply Voltage: Vin: 12V; VSB: 5V +/-5%,                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |           |
| 环境                    | 工作温度         | 标准: 0 ~ 60 °C (32 ~ 140 °F) (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<br>储存: 60 °C @ 95% relative humidity, 非凝结                                                                                                                                                                                                                                                                                                                                                                                                   |          |           |
|                       | 振动           | 3.5Grms                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |          |           |
| 物理特征                  | 尺寸           | 125mm*95mm(4.92" x 3.74" )                                                                                                                                                                                                                                                                                                                                                                                                                                                         |          |           |
| ESD                   |              | Contact ±6kV by air ±8kV                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |           |
| 操作系统 Operating System |              | Windows 7/Windows 10/ 麒麟 Linux                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          |           |

