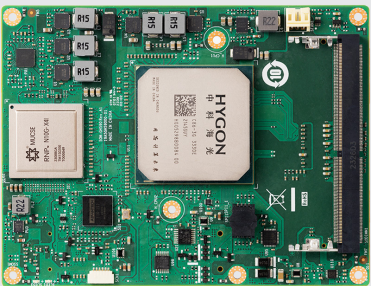


## 中国自主知识产权处理器，海光三号系列COM Express Basic模块

### I 特点

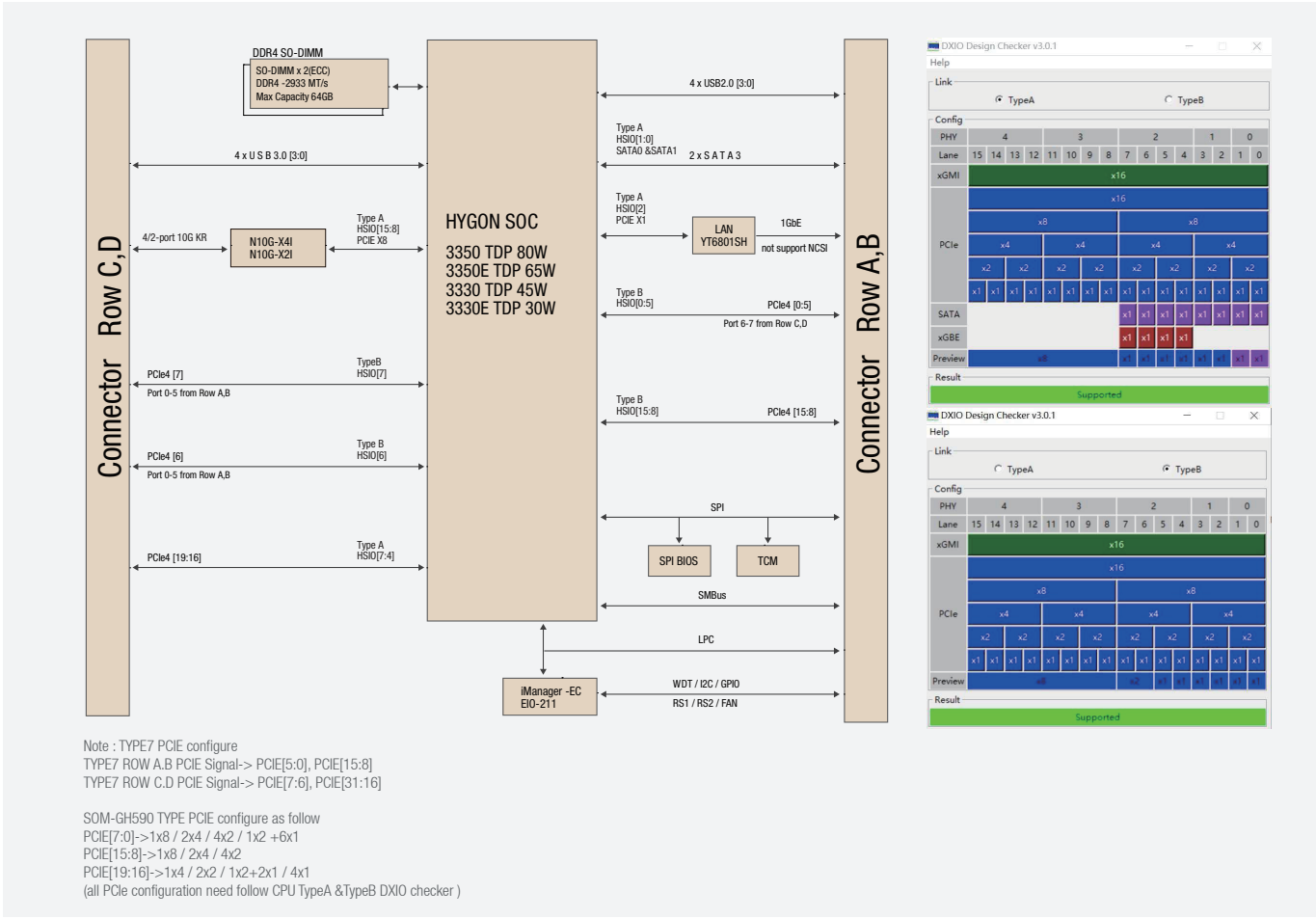
- 中国自主知识产权处理器,海光三号系列COM Express Basic模块
- 支持最高CPU主频:8核3.0GHz
- 国产化率≥97%
- CPU TDP 最大支持80W
- 最大支持64G内存(SO-DIMM 64G)



### I 规格

|                      |              |                                                                                                                                                                    |             |            |             |
|----------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------|-------------|
| 产品类型                 | Form Factor  | COM Express Basic Module                                                                                                                                           |             |            |             |
|                      | Pin-out Type | COM Express R3.0 Type 7 pin out                                                                                                                                    |             |            |             |
| 处理器                  | CPU          | HYGON 3350                                                                                                                                                         | HYGON 3350E | HYGON 3330 | HYGON 3330E |
|                      | 基础频率         | 3.0GHz                                                                                                                                                             | 2.8GHz      | 3.0GHz     | 2.0GHz      |
|                      | 核心数          | 8                                                                                                                                                                  | 8           | 4          | 4           |
|                      | 典型功耗         | 80W                                                                                                                                                                | 65W         | 45W        | 30W         |
|                      | BIOS         | 百敖BIOS                                                                                                                                                             |             |            |             |
| 内存                   | 技术           | DDR4                                                                                                                                                               |             |            |             |
|                      | 最大容量         | 64GB                                                                                                                                                               |             |            |             |
|                      | 插槽           | 2x 260P SO-DIMM                                                                                                                                                    |             |            |             |
| 串行总线                 | SMBus        | N                                                                                                                                                                  |             |            |             |
|                      | I2C          | 2                                                                                                                                                                  |             |            |             |
| 网络                   | Gigabit      | 1 x 10/100/1000M GIGABIT Ethernet Controller                                                                                                                       |             |            |             |
|                      | 10GB 以太网     | 2x 10G LAN controller/4x 10G LAN controller;Interface: 10GBase-KR                                                                                                  |             |            |             |
| 扩展                   | PCIe         | PCIe Gen4                                                                                                                                                          |             |            |             |
|                      |              | PCIe [0:7]->x8 , 2 x4 , x4 +4 x1<br>PCIe [8:15] x8, Can config. To 2 x4, 4 x2<br>PCIe [0:15] x16, 4 x4 , 8 x2, x8+x2+6 x1<br>PCIe[16:19] 1 x4, 2 x2, 1X2+2x1, 4 x1 |             |            |             |
| 接口                   | SATA3.0      | 2                                                                                                                                                                  |             |            |             |
|                      | USB3.0       | 4                                                                                                                                                                  |             |            |             |
|                      | USB2.0       | 4                                                                                                                                                                  |             |            |             |
|                      | SPI Bus      | Yes                                                                                                                                                                |             |            |             |
|                      | GPIO         | 8bits                                                                                                                                                              |             |            |             |
|                      | Watchdog     | Yes(65536 level, 0 ~ 65535 sec 使用EC 方案(EC-201))                                                                                                                    |             |            |             |
|                      | COM Port     | 2 Ports(2-wire)                                                                                                                                                    |             |            |             |
|                      | TCM          | Optional(国民技术Z32H330TC)                                                                                                                                            |             |            |             |
|                      | Smart FAN    | 2 Ports; 1 port on COM module. Support 12V Fan, 1 port on carrier board                                                                                            |             |            |             |
| 电源                   | Type         | ATX: Vin, VSB; AT: Vin                                                                                                                                             |             |            |             |
|                      | 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)                                                                                                                                        |             |            |             |
|                      | 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 |              | 测试基于UOSv20_4.19.0-server-amd64, 可参考海光平台OS List                                                                                                                     |             |            |             |

系统框图



订货信息

| 料号           | CPU         | 基础频率   | 核心数     | 10GBase-KR   | GLAN | CPU TDP | 工作温度   |
|--------------|-------------|--------|---------|--------------|------|---------|--------|
| CMH70-C872-2 | HYGON 3350  | 3.0GHZ | 8 Cores | 2x10GBase-KR | 1    | 80W     | 0~45°C |
| CMH70-E874-2 | HYGON 3350E | 2.8GHZ | 8 Cores | 4x10GBase-KR | 1    | 65W     | 0~45°C |
| CMH70-C472-2 | HYGON 3330  | 3.0GHZ | 4 Cores | 2x10GBase-KR | 1    | 45W     | 0~60°C |
| CMH70-E474-2 | HYGON 3330E | 2.0GHZ | 4 Cores | 4x10GBase-KR | 1    | 30W     | 0~60°C |
| CMH70-E472-2 | HYGON 3330E | 2.0GHZ | 4 Cores | 2x10GBase-KR | 1    | 30W     | 0~60°C |

包装列表

| 料号             | 描述                   | 数量 |
|----------------|----------------------|----|
| -              | SOM-GH590 COM module | 1  |
| 1970005827T011 | Heatspreader         | 1  |
| 1700033882-01  | Fan Cable            | 1  |

开发板

| 料号              | 描述                                             |
|-----------------|------------------------------------------------|
| SOM-DB5920-F1A2 | COMe Type 7 Devel. Board Rev.A2 w/10G PHY EA65 |