



SK518-AP

**COH-HPC Server Type D Carrier Board with PCIe/104,
Slim-SAS Express Expansions Extreme temperature
-40°C to 85°C**



Extended
Temperature
+85°C
-40°C

- COM-HPC Server (D) Support Ampere Altra
- PCIe/104 Express Expansion Slot for Rugged StackPC
- Multi-Expansion Slots :
 - 4 x Slim-SAS(Vertical) (2 x PCIe Gen4 x 4 / 2 x PCIe Gen4 x 8)
 - 1 x mPCIe(Full Size)
 - 2 x M.2 2280 M-Key(PCIe Gen4 x 4)
- I/O : 2 x GbE, 1 x VGA, 2 x SATAIII, 2 x COM(RS232), 4 x USB3.0, 2 x USB2.0, 1 x DIDO
- 12V DC Input
- Extreme Temperature -40°C to 85°C

Specifications

System

| | |
|-------------|--|
| CPU | Ampere Altra Max/ Altra : M128-26, 128C, 2.6/2.6GHz, 16M Cache, TDP : 190W Q80-26, 80C, 2.6/2.6GHz, 32M Cache, TDP : 150W Q64-22, 64C, 2.2/2.2GHz, 32M Cache, TDP : 95W |
| Memory type | DDR4 R-DIMMs up to 768GB |
| Chipset | On CPU Module |
| Storage | SlimSAS/M.2/SATA interface |
| Watchdog | On CPU module : 1-255 sec. or 1-255 min. software programmable and can be generate system reset. |

Expansion Slot

| | |
|-------------------------|--|
| PCIe/104 (Type2) | 1(2*PCIe Gen3 x 4/4*PCllexGen3 x 1/2*SATA) |
| Slim-SAS (Vertical) | 2(PCIe Gen4 x 8) |
| Slim-SAS (Vertical) | 2(PCIe Gen4 x 4) |
| MiniPCIe (Full Size) | 1(PCIe Gen3 x 1) |
| M.2 | 2(M.2 2280 M-Key)(PCIe Gen4 x 4) |

Display

| | |
|---------|-------------------------|
| Chipset | On CPU Module / AST2510 |
| VGA | 1 |

Ethernet

| | |
|---------|-------------------------------|
| Chipset | 1 x Intel® I210iT 1 x C827 |
| IPMI | AST2500 by request |

External I/O

| | |
|--------|---|
| VGA | 1 |
| USB3.0 | 4 |
| 10GbE | 4 |

| | |
|-----|---|
| GbE | 2 |
|-----|---|

Internal I/O

| | |
|--------|-----------|
| USB2.0 | 2(Header) |
|--------|-----------|

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|------|-------------|
| DIDO | 1(4in/4out) |
|------|-------------|

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|---------|---|
| SATAIII | 2 |
|---------|---|

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|------------|---|
| SATA Power | 2 |
|------------|---|

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|--------|-----------|
| Serial | 2 (RS232) |
|--------|-----------|

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|----------------|---|
| SM BUS/I2C BUS | 1 |
|----------------|---|

| | |
|-----|---|
| LPC | 1 |
|-----|---|

| | |
|------------|---|
| System Fan | 1 |
|------------|---|

| | |
|---------|---|
| CPU Fan | 1 |
|---------|---|

| | |
|---------------------|---|
| Front Panel Control | 1 |
|---------------------|---|

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|-----------------|-----------------------------|
| Power Connector | 1(2 x 4-pin terminal block) |
|-----------------|-----------------------------|

Mechanical and Environmental

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|-------------|-------------------------------|
| Form Factor | COM-HPC Carrier Server Type D |
|-------------|-------------------------------|

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|------------|-----------|
| Power Type | DC-IN 12V |
|------------|-----------|

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|-----------|---------------|
| Dimension | 350mm x 210mm |
|-----------|---------------|

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|-----------------------|-------------|
| Operating Temperature | -40 to 85°C |
|-----------------------|-------------|

| | |
|---------------------|-------------|
| Storage Temperature | -40 to 85°C |
|---------------------|-------------|

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|-------------------|----------------------------|
| Relative humidity | 10% to 90%, non-condensing |
|-------------------|----------------------------|

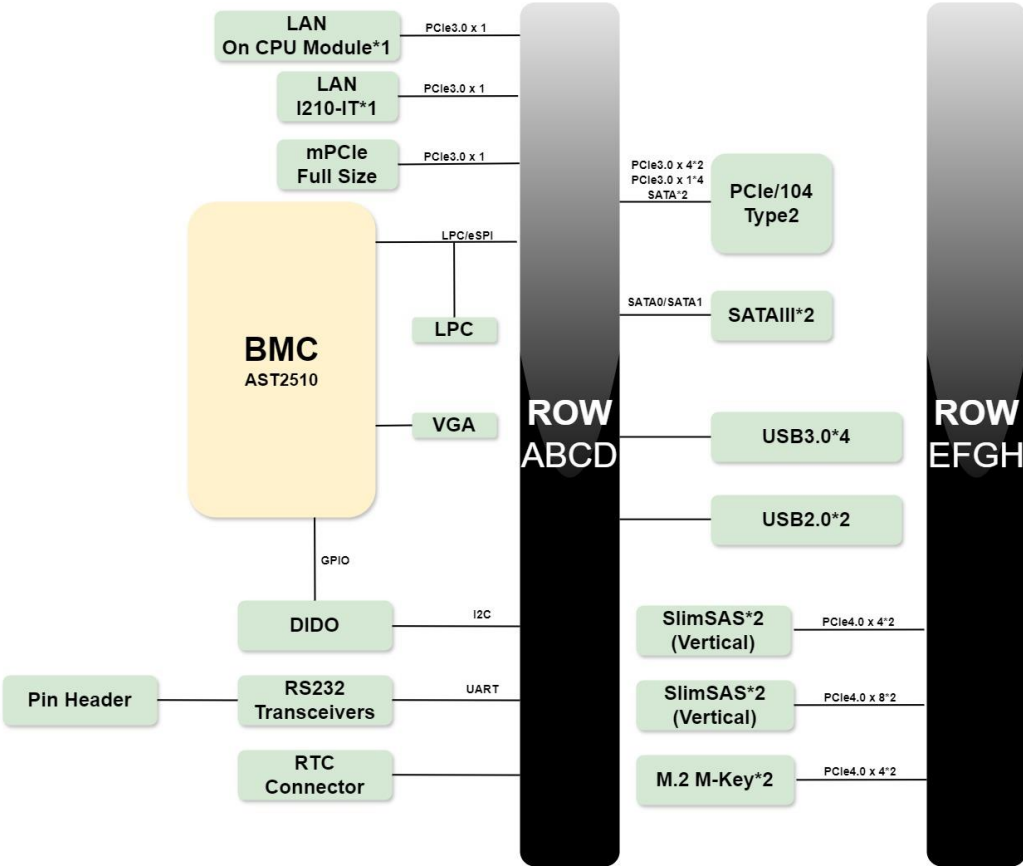
Standard Compliance

| | |
|---------------------|--------|
| Standard Compliance | CE/FCC |
|---------------------|--------|

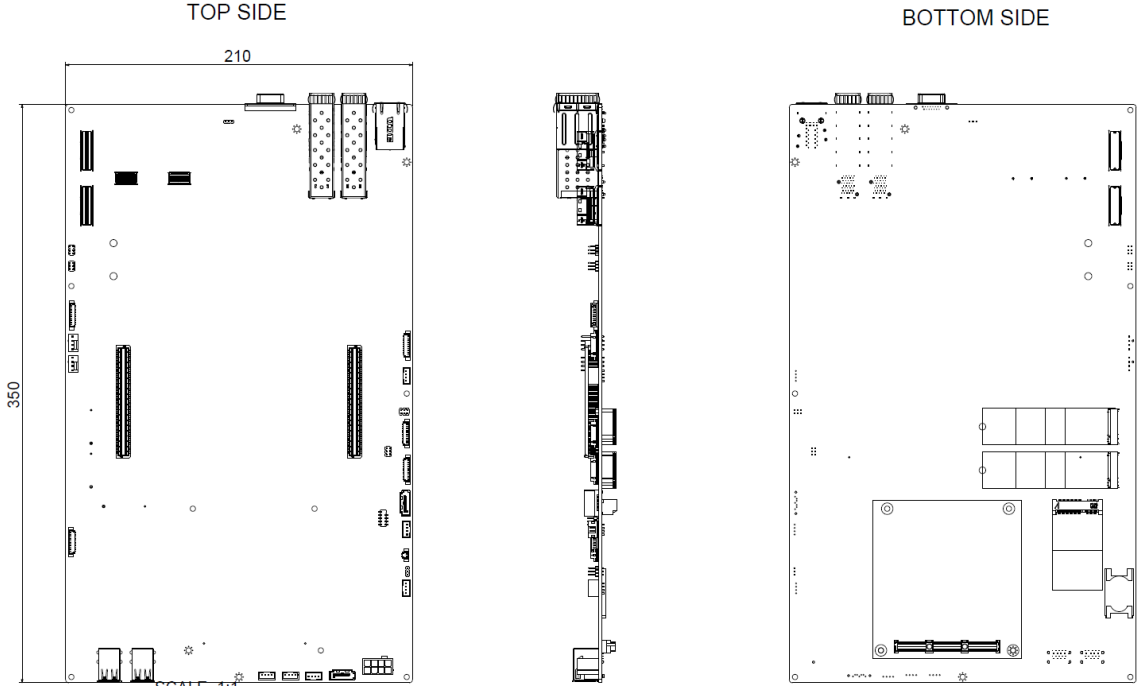
OS

| | |
|----|---------------|
| OS | On CPU Module |
|----|---------------|

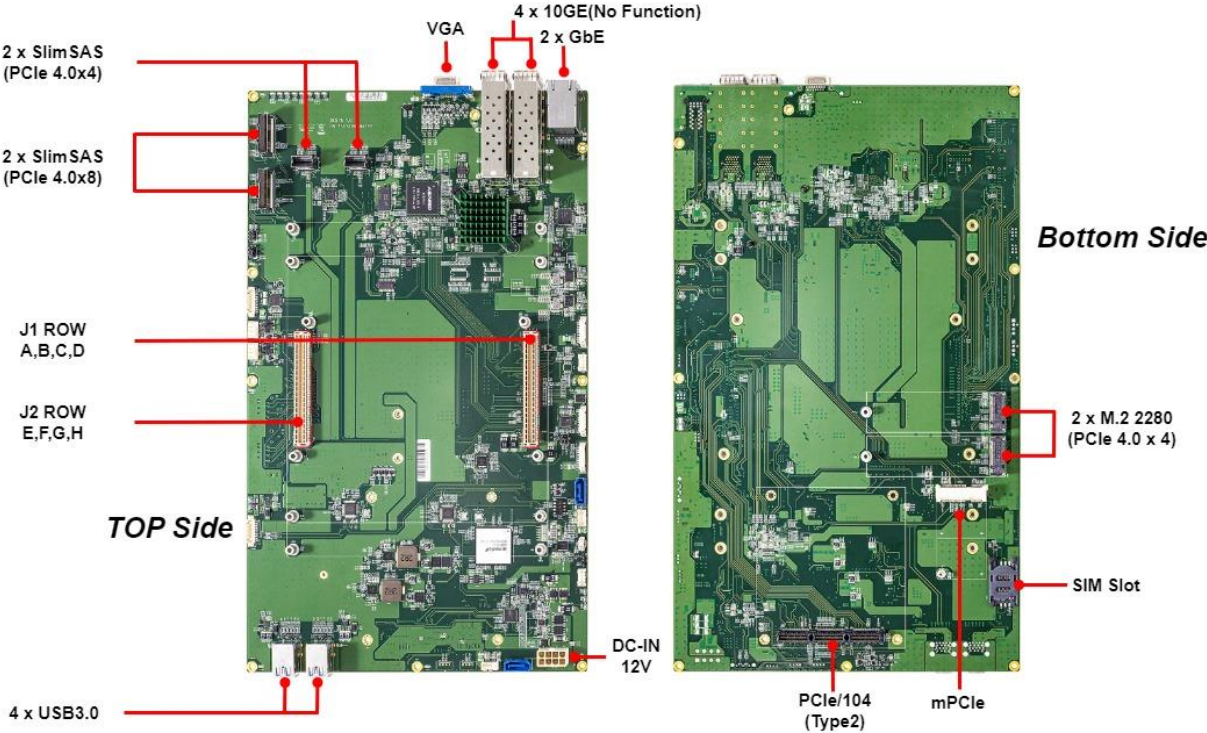
Block Diagram



Dimension



Appearance



CPU/GPU Table

CPU Products List

| | CPU | SPEC |
|--------|---------|---|
| Ampere | M128-26 | 128C, 2.6/2.6GHz, 16M Cache, TDP : 190W |
| | Q80-26 | 80C, 2.0/3.2GHz, 25M Cache, TDP : 150W |
| | Q64-22 | 64C, 2.2/2.2GHz, 32M Cache, TDP : 95W |

GPU Products List

| GPU | CUDA Cores | Memory | TDP |
|-------------------|-----------------|------------|-----|
| NVIDIA® RTX A4500 | 5,888 CUDA Core | GDDR6 16GB | 80W |
| NVIDIA® RTX A2000 | 2,560 CUDA core | GDDR6 8GB | 60W |

Ordering Information

| COMe Type | Model Name | Configuration |
|-----------|--------------------|------------------------------------|
| COM-HPC | SK518-APM12826-A45 | CPU : M128-26 / MXM GPU :RTX A4500 |
| | SK518-APQ8026-A20 | CPU : Q80-26 / MXM GPU :RTX A2000 |
| | SK518-APQ6422-A20 | CPU : Q64-22 / MXM GPU :RTX A2000 |