

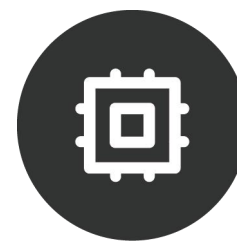
CSA1N8S1684

| 8-node 140Tops Cluster Server

V1.1



Product features



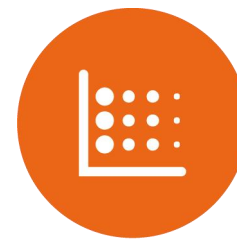
Strong Computing Power

Provide up to 140T peak computing power or 17.6T FP32 high-precision computing power.



Ultra-High Performance

Support 128-channel 1080P HD video whole-process processing and 304-channel full HD video hardware decoding and 16-channel encoding.



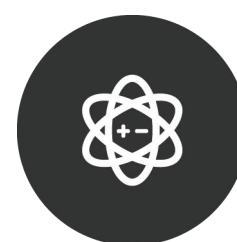
High Computing Density

In the way of high-density integration and tight deployment, a single Cluster Server is equipped with 8*BM1684 to reduce TCO



Rapid Migration

Support Caffe/TensorFlow/PyTorch/MXNet/Paddle Lite and other mainstream deep learning frameworks



Rich Algorithms

Support algorithm migration of pedestrian/vehicle / non-vehicle / object recognition, video structurization, trajectory behavior analysis, etc.



Rich Scenarios

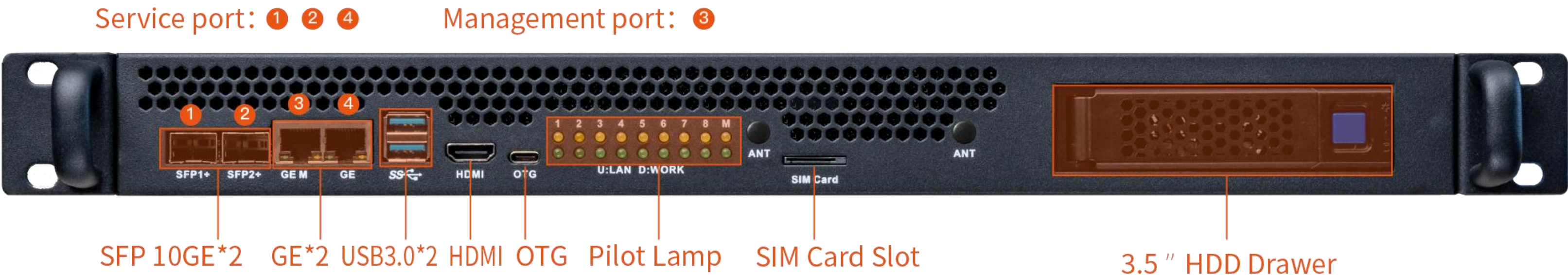
Support intelligent park / security / industrial control / commerce, etc. Flexible deployment in multiple fields and scenarios

Specifications

| Specifications | |
|----------------------|---|
| Name | Algorithmic Cluster Server |
| Model | CSA1N8S1684 |
| AI | 140T@INT8、17.6TFLOPS@FP32 |
| Encoding Decoding | Video Decoding: H.264 & H.265: 1080P @11520fps Video decoding resolution: 8192 * 8192 / 8K / 4K / 1080P / 720P / D1 / CIF Video Encoding: H.264 & H.265: 1080P @600fps Video Encoding resolution: 4K / 1080P / 720P / D1 / CIF Image Decoding: JPEG: 4800 pictures/sec @1080P |
| Nodes | 8 compute nodes(up to 64 ARM cores) + 1 control node |
| CPU | Compute node: BM1684, 8-core (A53*8) 64-bit processor, up to 2.3GHz Control node: RK3588S, 8-core (4xCortex-A76+4xCortex-A55) 64-bit CPU, up to 2.4GHz |
| RAM | 12GB LPDDR4 × 8 |
| Storage | 32GB eMMC × 8 Expandable 3.5" SATA3.0 HDD × 1 |
| Network | GE RJ45 network ports ×2 (one main core board network port and one ordinary network ports) SFP 10GE × 2 4G LTE/5G (optional) |
| Display | HDMI 2.0, up to 4K@60Hz (Main core board display) |
| USB | 2 ↑ USB3.0 HOST、1 ↑ Type-C (for processor core board debugging) |
| Fan | 5 high-speed cooling fans |
| Power | 300W AC power (input: 100V AC ~ 240V AC) |
| System | Linux |
| BMC | Integrated BMC management system provides management interface based on Web. Supports secondary development. |
| Framework | Deep Learning Framework: TensorFlow / PyTorch / Paddle / Caffe / ONNX / MXNet / DarkNet |
| Dimension | Standard 1U rack-mounted server: 490mm x 390mm x 44.4mm |
| Environment | Operating temperature: 0°C - 50°C, Storage Humidity: 8%RH~95%RH |

Interface description

Front View



Back View



제품 데이터시트 더포스웨어

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