

Portable Product Sheet - C4K Supervisors

Last Updated: December 10, 2004

Catalyst 4x00 High-Performance Layer 3 Supervisors

| Feature | Sup 4 | Sup 5 | Sup 5-10GE |
|-------------------------------|---|---|--|
| Chassis Support | 4x06/4503/4507-R | All except 4003 | All except 4003 |
| End of Sale | No | No | No |
| Redundant Sup's | Yes (07R Only) | Yes (07R, 10R) | Yes (07R, 10R) |
| CPU | 333MHz MPC | 400MHz MPC | 800MHz MPC |
| Layer 3 | Included (4232-L3 unsupported) | | |
| L3 Hardware Protocols | IP | | |
| L3 Software Protocols | IPX, Appletalk | | |
| Software Support | IOS Only | | |
| Software Required | 12.1(12c)EW | 12.2(18)EW | 12.2(25)EW |
| Fixed Uplinks | 2 GBIC | 2 GBIC | 2 Xenpak 10GE or 4 SFP (only one type active at once - 10GE or GE) |
| Netflow Services Card | Yes (modular) | Yes (modular) | Yes (integrated) |
| Netflow Capacity | 64,000 flows | 64,000 flows | 85,000 flows |
| Uplinks Active When Redundant | 2 (ports 1/1 and 2/1) | 4 (all ports) | 2 (10GE, any 2 ports on any Sup) 4 (GE, any 4 ports on any Sup) |
| 4510R - 10th slot | N/A | 2-port GE card or AGM only | Any C4K linecard |
| Trunking | 802.1q, ISL | | |
| Backplane | 64 Gbps | 96 Gbps | 136 Gbps |
| Forwarding Capacity | 48Mpps (L2, IP, basic L3 includes PIM, RIP, static) | 72Mpps (L2, IP, basic L3 includes PIM, RIP, static) | 102Mpps (L2, IP, Basic L3 includes PIM, RIP, static) |
| "PFC-Like" TCAM | Yes | Yes | Yes |
| Broadcast Suppression | Software | Hardware | Hardware |
| Multicast Suppression | No | Yes | Yes |
| Q-in-Q | Pass-through | Hardware | Hardware |
| External Flash Slot | Yes (1) | | |
| Flash Card Capacity | 64Mb,128Mb | | |
| Onboard Flash | 64MB | | |
| Buffering | 16MB | | |
| DRAM | 512MB | | |
| DRAM Slots | 1 | | |
| NVRAM | 512KB | | |
| Queues Per Port | 4 | | |
| Ingress Policers | 1024 | 1024 | 8000 |
| Egress Policers | 1024 | 1024 | 8000 |
| Management Ports | 1 RJ-45 Console 1 10/100Mbps Ethernet | | |
| Max # of MAC's | 32,000 | | |
| Operating Temp | 32 to 104°F (0 to 40°C) | | |
| Storage Temp | -40 to 167°F (-40 to 75°C) | | |
| Relative Humidity | 10% to 90%, noncondensing | | |

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Catalyst 4x00 Entry-Level Layer 3 Supervisors

| Feature | Sup 2+ | Sup2+ TS | Sup 3 |
|-------------------------------|---------------------------------------|--------------------------------------|---|
| Chassis Support | 4x06/4503/4507-R | 4503 | 4x06/4503 |
| End of Sale | No | No | Yes (July 26, 2004) |
| Redundant Sup's | Yes (4507-R Only) | No | No |
| CPU | 266MHz MPC | 266MHz MPC | 300MHz MPC8245 |
| L2 ASIC Used | K2 | K2 | K2 |
| Layer 3 | Included (4232-L3 unsupported) | | |
| L3 Hardware Protocols | IP | | |
| L3 Software Protocols | IPX, Appletalk | | |
| Software Support | IOS Only | | |
| Software Required | 12.1(19)EW | 12.2(20)EWA | 12.1(8a)EW |
| Fixed Uplinks | 2 GBIC | 8 SFP, 12 10/100/1000 802.3af PoE | 2 GBIC |
| Netflow Services Card | No | No | No |
| Uplinks Active When Redundant | 2 (ports 1/1 and 2/1) | N/A | N/A |
| Trunking | 802.1q, ISL | | |
| Backplane | 64 Gbps | 64 Gbps | 64 Gbps |
| Forwarding Capacity | 48Mpps (L2, IP, basic L3 ONLY) | 48Mpps (L2, IP, basic L3 ONLY) | 48Mpps (L2, IP, basic L3 includes PIM, RIP, static) |
| "PFC-Like" TCAM | Yes (Basic) | Yes (Basic) | Yes (Enhanced) |
| External Flash Slot | Yes (1) | | |
| Flash Card Capacity | 64Mb, 128Mb | | |
| Onboard Flash | 32MB | 32MB | 64MB |
| Buffering | 16MB | | |
| DRAM | 256MB | | |
| DRAM Slots | 1 | | |
| NVRAM | 512KB | | |
| Queues Per Port | 4 | | |
| Ingress Policers | 512 | 512 | 1024 |
| Egress Policers | 512 | 512 | 1024 |
| Management Ports | 1 RJ-45 Console 1 10/100Mbps Ethernet | | |
| Max # of MAC's | 32,000 | | |
| Operating Temp | 32 to 104°F (0 to 40°C) | | |
| Storage Temp | -40 to 167°F (-40 to 75°C) | | |
| Relative Humidity | 10% to 90%, noncondensing | | |

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Catalyst 4x00 Layer 2 Supervisors

| Feature | Sup 1 | Sup 2 |
|---------------------|---|---|
| Chassis Support | 4003 | 4x06/4503 |
| End of Sale | Yes (July 26, 2004) | Yes (May 3, 2005) |
| Redundant Sup's | No | No |
| CPU | 150MHz R5000 | 150MHz R5000 |
| L2 ASIC Used | K1 | K1 |
| Layer 3 | Optional, using 4232-L3, 4604 | Optional, using 4232-L3, 4604 |
| Layer 3 Protocols | IP, IPX, AT | IP, IPX, AT |
| Software Support | CatOS Only | CatOS Only |
| Software Required | 4.4 | 5.4 |
| Fixed Uplinks | None | (2) GBIC |
| Trunking | 802.1q | 802.1q |
| Backplane | 12 Gbps | 3 x 10Gbps |
| Forwarding Capacity | 18Mpps (L2), 6Mpps(L3/IP, using 4232-L3, 4604) | 18Mpps (L2), 6Mpps(L3/IP, using 4232-L3, 4604) |
| "PFC-Like" TCAM | No | No |
| External Flash Slot | No | No |
| Flash Card Capacity | N/A | N/A |
| Onboard Flash | 12MB | 16MB |
| Buffering | 8MB | 24MB |
| DRAM | 64MB | 64MB |
| DRAM Slots | 1 | 1 |
| NVRAM | 512KB | 512KB |
| Queues Per Port | 2 | 2 |
| Ingress Policers | 0 | 0 |
| Egress Policers | 0 | 0 |
| Management Ports | 1 DB-25 Console, 1 10Mbps Ethernet | 1 RJ-45 Console 1 10/100Mbps Ethernet |
| Max # of MAC's | 16,000 | |
| Operating Temp | 32 to 104 Deg. F (0 to 40 Deg. C) | |
| Storage Temp | -40 to 167 Deg. F (-40 to 75 Deg. C) | |
| Relative Humidity | 10% to 90%, noncondensing | |

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Catalyst 4000 Supervisors - Notes

Supervisor II

Backplane performance may be increased (4006 only) in two ways -

- > issuing the **set switchacceleration enable 1** command
(Note that this will disable the two onboard Supervisor GE ports)
 - > installing the WS-X4019= blade
- ... the above methods may be combined, as well.

4232-L3 blade

Data-plane ACL's (filters) are not configurable on any FE port, subinterface, or **port-channel** interfaces.

Filtering may only be done on the primary GE ports (**interface Gig3/0**, for example).

The GE ports of this blade are the only ISL-capable ports of a Supervisor 1/2 Cat4K.

Base IP license includes static routes, RIP, PIM, and Appletalk. Enhanced adds EIGRP and OSPF.

Jumbo (or "Giant") Frames

Supervisor 1/2 do not support frames larger than 1536 bytes.

Supervisor 2+/3/4/5 support jumbo frames (up to 9216 bytes) on non-blocking GE ports.