



KORBOX PERUN II is a high-quality backbone switch

48x 25G SFP 28 ports + 8x 100G QSFP28 Ports, Management (1000Base-T), RJ45 Console Port, and USB2.0 (Type A)

Full licensing equipment (no limit on the number of VLANs, PIMs or protocols)

Operating system SONiC (Software for Open Networking in the Cloud) is a free and open source network operating system based on Linux and developed by Microsoft and the Open Compute Project.

Specification	
Ports	48x 10/25GbE SFP28 + 8x 100/40GbE QSFP28 ports in 1 RU Up to 80 x 25/10G SFP28 ports via break-out cables 1x RJ-45 out-of-band (10/100/1000) management 1x RJ-45 console (RS232) 1x USB
Performance	Switching silicon: 2.4Tbps Innovium
Power	Redundant PSU
Cooling	4 N+1 redundant fans Front-to-Back
Dimensions (DxWxH)	1U, 470 x 440 x 44 mm Rackmount kit
Environment	Operating temperature: 0~40°C Operating humidity: 20~90% maximum relative humidity (non condensing)
Warranty	4 year
EMC and safety	FCC CE Declaration of Conformity Reduction of Hazardous Substances (RoHS) 6
Compatible NOS	Open Network Linux SONiC (Software for Open Networking in the Cloud)



Protocols (SONiC)

- VXLAN
- NVGRE
- MPLS
- BGP
- ECMP
- LAG
- LLDP
- QoS - ECN
- QoS - RDMA
- Priority Flow Control
- WRED
- COS
- SNMP
- Syslog
- Sysdump
- NTP
- COPP
- DHCP Relay Agent
- SONiC to SONiC upgrade
- One Image
- VLAN
- ACL permit/deny
- IPv6
- Tunnel Decap
- Mirroring
- Port Speed Setting
- BGP Graceful restart helper
- BGP MP
- Fast Reload
- PFC WD
- TACACS+
- MAC Aging
- LACP Fallback
- MTU Setting
- Vlan Trunk
- IPv6 ACL
- BGP/Neighbor-down fib-accelerate
- Port breakout
- Dynamic ACL Upgrade
- SWSS Unit Test Framework (best effort)
- ConfigDB Framework
- Critical Resource Monitoring
- MAC Aging
- IPv6 ACL
- BGP/Neighbor-down fib-accelerate
- PFC WD
- gRPC
- Dtel support
- Sensor transceiver monitoring
- LLDP extended MIB: lldpremtable, lldplocporttable, lldpremanaddrttable, lldplocmanaddrttable, lldplocporttable, lldpLocalSystemData
- Debian Kernel 4.9
- Warm Reboot
- Incremental Config (IP, LAG, Port shut/unshut)
- Asymmetric PFC
- PFC Watermark
- Routing Stack Graceful Restart
- Basic VRF and L3 VXLAN
- FRR as default routing stack
- Everflow enhancement
- Egress ACL bug fix and ACL CLI en-hancement
- L3 RIF counter support
- PMon Refactoring
- BGP-EVPN support(type 5), (related HLD Fpmsyncd,Vxlanmgr,template)Debian Kernel 4.9
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InnoFlex: Robust L2 Forwarding

Feature	Scale
L2	
MAC Addresses	up to 256K
Bridge Domains	8K
LAG Support	Yes
LAGs	
# of LAGs	512
Members/Group	up to 128
Total Members	1K

InnoFlex: Comprehensive Tunneling

Feature	Scale
IP Tunnels	
Tunnel Header	IPv4 and IPv6
Payload	IPv4, IPv6, L2, MPLS
Common Tunnel Types	IPinIP, IPinGRE, GPE, VXLAN, NVGRE, Geneve etc.
IPv4 Tunnel Termination	Up to 16k
IPv4 Tunnel Initiation	Up to 16k
IPv6 Tunnel Termination	Up to 8k
IPv6 Tunnel Initiation	Up to 8k

InnoFlex: Scalable IP Forwarding

Feature	Scale
IPv4 and IPv6 Dest	Flexible Table Partitioning
IPv4 only	LPM : 500K and Hosts: 192K
IPv6 only	LPM (upto /64): 250K and Hosts: 96K
Large IPv4 and Large IPv6	LPM : 128K v4 + 128K v6 (/64) and Hosts: 24K v4 + 24K v6
ECMP	Yes
NextHops	Upto 40K
VRFs	256
ECMP	
Groups	8K
Members/Group	up to 512 : 8K
Total Members	32K
2-level ECMP	Yes

InnoFlex: Comprehensive Tunneling

Feature	Support/Scale
Incoming Label Operations	2 POPs and 1 SWAP/PHP
Outgoing Label Operations	Up to 8 Label Push
Termination Labels	16K
LSR Labels	Up to 40K
HSDN Labels (Swap to Self)	Up to 128K
Entropy	Up to 8 incoming labels and optionally IP payload
MPLS ECMP	Yes
L3 VPN	Yes



InnoFlex: Flexible, Scalable ACL

Flexible Match Key Construction

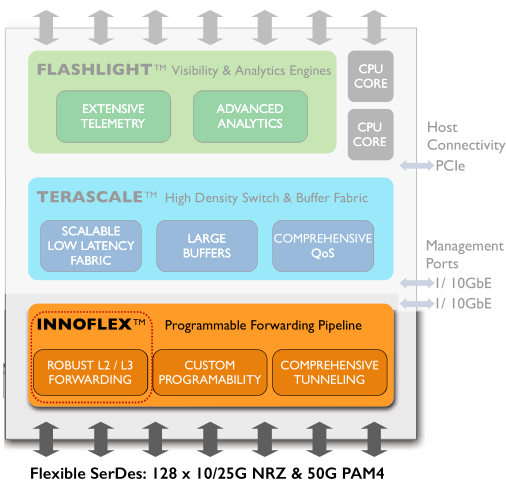
- Ingress
 - 10 Match Engines, each with a Flexible Match Key Assembler
- Egress
 - 4 Match Engines, each with a Flexible Match Key Assembler

Each Ingress ACL Match Key can be any combination of:

- L2/L3/L4/Shim Fields from Tunnel Header
- L2/L3/L4 fields from Tunnel Payload
- Pipeline Metadata

Each Egress ACL Match Key can be any combination of:

- Forwarding L2/L3/L4 headers
- Pipeline Metadata



Feature	Ingress ACL Engine	Egress ACL Engine
# of Rules	8K per IB 16K total	1.5K @ 80b per IB 3K total
# of Matches Per-Packet	10	4
Match Key Sizes	80b,160b, 320b, 480b	80b,160b,320b,480b
ACL Counters	16K	1.5K
ACL Counters Per-Packet	10	4
ACL Meters	1K meter pairs	256 meter pairs
ACL Meters Per-Packet	Up to 4	Up to 2