

OVERVIEW

Get high-density, advanced programmability, low latency, workload isolation, and wire-rate layer 2 and 3 switching on a data-center-class. The SNG Siselectron series switches are high-density, purpose-built 100Gb switches designed for high-performance enterprise and cloud data centers. The SNG6054 can handle a wide range of high bandwidth applications, including high-density 10Gb top of rack aggregation, emerging 25Gb and 50Gb Ethernet, and 100Gb spine/leaf fabric deployments. The SNG6054 offers unique flexibility for high bandwidth 100Gb spine fabric applications and high density 10G and 25Gb edge leaf aggregation. The Siselectron SNG6054 supports sophisticated, intelligent Layer 2 switching, as well as Layer 3 IPv4/IPv6 routing including policy-based switching and routing.

BENEFITS

- High Density
- Cloud and Big Data Environment
- IPv6 Solution
- OpenFlow Technology
- Datacenter Optimization
- Security Management
- Reliability
- IPMI Management

CHARACTERISTICS

- Switching capacity: 3.6 Tbps
- Packet Troughput: 2.678 Gpps
- SSD: M.2 64GM
- MTBF: 187444 (HR)

Service Ports	48 25G SFP28 6 100G QSFP28 1 1G Out-of-band Management 1 RJ45 serial Console 1 USB2.0
Switch Capacity	3.6 Tbps
Switching IC	Broadcom Tomahawk
RAM	DDR 8G/16G (two SODIMM with ECC)
CPU	Rangely C2558 2.4G 4-Core
SSD	M.2 64GM
Packet Troughput	2.678 Gpps
Dimension	440 x 406 x 44 (mm)
Weight	8.4kg
MTBF	187444 (HR)
Airflow & FAN	Front-to Back or Back-to-Front, 3+1 redundant FAN FRU
Input Voltage Frequency	100V ~ 240V AC 50Hz ~ 60Hz
Operation Temperature	0°C ~ 45°C
Operation Humidity	5% ~ 95% non-condensing
MAC Table	288K (1)



Aggregation Features

- 802.3ad with LACP
- Unicast/Multicast traffic balance
- Max number of groups: 8
- Max number per groups: 32
- VLAN
 - IEEE802.1Q
 - Port-Based
 - Private VLAN

Storm Control

- Broadcast
- Unknown Multicast
- DLF (Unknown unicast)

L3 Features

- 128 IP interfaces
- Multinetting / CIDR
- 31 subnet support
- IP ARP
- Proxy ARP
- Local Proxy ARP
- IRDP
- Static route
- 48-way ECMP
- OSPF v2/v3
- BGP v4/v6
- Source IP Configuration
- Policy-based Routing (PBR)
- IPv6 Tunneling
- IPv6 Loopback

Security

- Static/Dynamic Port Security (MAC-based) 802.1x
 - Port based
 - Mac based
 - VLAN assignment
 - Guest VLAN
 - Unauthenticated VLAN
- ACL
 - L2: MAC SA/DA, Cos, EtherType
 - L3: IPv4 SA/DA, subnet based
 - L3 IPv6 SA/DA, flow-label, DSCP
 - L4: TCP/UDP port
 - Time-based ACL
- RADIUS
 - Authentication
 - Accounting
- TACACS+
 - Authentication
- HTTPS & SSL
- SSH 1.5/2.0
- User authentication
 - Local
 - RADIUS/TACACS+
 - AAA
- DoS Control
- MAC filter
- DHCP snooping
- IP Source Guard
- Dynamic ARP inspection
- Control Plane Policy (CoPP)

Spanning Tree Protocol

- IEEE 802.1D
- IEEE 802.1w
- IEEE 802.1s
- Spanning Tree Fast
 - Forwarding
- Edge port (same as fast forwarding)
- BPDU Filter/Guard
- Auto Edge
- TCN Guard
- Root Guard
- Loop Guard

VRRP

- Loopback
- DHCPv6 relay
- DHCPv6 server

IGMP Snooping

- IGMP Snooping
- IGMP Snooping v1/v2/v3
- IGMP v1/v2 querier support
- IGMP Immediate Leave
- MLD Snooping
- 9K Jumbo frame
- 802.3x Flow Control

Management

- Industrial standard CLI
- CLI filtering
- Software/configuration upload/download using TFTP/XMODEM/FTP/HTTP/SCP/SFTP
- Dual Image support
- SNMP v1/v2c/v3
- RMON 1,2,3,9 groups
- BOOTP client/relay
- DHCP
 - Client
 - Server
 - Relay
 - L2 option 82 relay
 - L3 option 82 relay
- Event log
- DNS client
- Utility: Remote ping, traceroute
- SNTPv4
- LLDP: 802.1AB, 802.MED
- CDP
- UDLD
- Port mirroring
 - SPAN: one-to-one, many-to-one
 - SPAN with ACL filter
 - SPAN with VLAN
 - RSPAN
 - ERSPAN
- Cable test
- Email alerting
- Auto install

QoS

- Number of priority queue : 8
- Scheduling
 - WRR
 - Strict Priority
 - Hybrid (WRR+Strict Priority)
- COS
 - 802.1p based COS
 - IP DSCP based COS
 - IP TOS Precedence based COS
- DiffServ
 - 32 number of class
 - 13 rules per class
 - No. class in policy : 64
 - No. class in class : 28
- Auto VoIP
- Port rate limit
- IPv6
 - v4/v6 dual stack
 - ICMPv6 / ICMPv6 redirect
 - IPv6 Path MTU Discovery
 - IPv6 Neighbor Discovery
 - Stateless Auto-configuration
 - Manual Configuration
 - DHCPv6
 - SNMP over IPv6
 - HTTP over IPv6
 - IPv6 Syslog Support
 - IPv6 SNMP Support
 - SSH over IPv6
 - IPv6 Telnet Support
 - IPv6 DNS Resolver
 - IPv6 TFTP Support
 - Remote IPv6 Ping