Siselectron
TECHNOLOGY

SND3256
Cloud Builder 40G Switch

SND3256 switch is a datacenter-class, 10G/40G switch product to meet customers' needs for large capacity, high performance, and high reliability. Based on the premise to provide high-density 10G/40G switch ports, these switches simplify datacenter network intratructure through innovative architecture, by supporting automation/orchestration and extensive datacenter-ready features. Our product positioning targets the next-generation, high-density 10G/40G TOR datacenter switch market. These switch products take advantage of advanced dual-protocol IPv4/IPv6 technology to ensure smooth migration to future generations of Internet to come, thus effectively protecting our user's investment. Equipped with numerous energy-efficient and environmental friendly features, our switches not only comply with enviroment policies, but lower user's operateing cost as well as in real-world operation

BENEFITS
- High Density
- Cloud and Big Data Environment
- IPv6 Solution
- Open Flow Technology
- PoE Capability
- Security Management

CHARACTERISTICS
Switching capacity: 1.44 Tbps
Packet Throughput: 1.07Gpps
MAC: 288k
MTBF: 179922 (HR)
CPU: Rangeley C 2588 4-Core

Service Ports	48 10/ 100/ 1000 Base T 8 10G SFP+ 1 1G Ethernet management port 1 RJ45 Console 1 USB2.0		
Switch Capacity	256Gbps		
Switching IC	BCM56344		
RAM	2GB NAND		
CPU	ARM Embedded		
Packet Throughput	190Mpps		
Dimension	440 x 406 x 44 (mm)		
Weight	8.4kg		
MTBF	179922 (HR)		
Airflow & FAN	Front-to-Back or Back-to-Front, 3+1 redundant FAN FRU		
Input Voltage	100V ~ 240V AC, 50Hz ~ 60Hz		
Operation Temperature	0°C ~ 45°C		
Operation Humidity	5% ~ 95% non-condensing		
MAC Table	288k		
Aggregation Features	802.3ad with LACP Unicast/Multicast traffic balance	Max number of groups: 64 Max number of members per group 32	
VLAN	IEEE 802.1Q Port-Based	Private VLAN	
Spanning Tree Protocol	IEEE 802.1D IEEE 802.1w IEEE 802.1s Spanning Tree Fast Forwarding Edge port (same as fast forwarding)	Auto Edge BPDU Filter/Guard Loop Guard TCN Guard Root Guard	

Storm Control

Broadcast
Unknown Multicast
DLF (unknown unicast)

QoS Features

8 priority queues
Scheduling
• WRR
• Strict priority
• Hybrid (WRR+Strict Priority)
COS
• 802.1p based COS
• IP TOS Precedence based COS
• IP DSCP based COS

DiffServ
• 32 number of class
• 13 rules per class
• 64 class in policy
• 28 policy in class
Auto VoIP
Port rate limit

IGMP Snooping

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

Layer 3 Features

Number of IP interface: 128
Multi-netting / CIDR / 31 subnet support
IP ARP
Proxy ARP
Local Proxy ARP
IRDP
Static route
48-way ECMP
OSPF v2/v3

BGP v4/v6
VRRP
Loopback
Source IP Configuration
Policy-based Routing (PBR)
IPv6 Tunneling
IPv6 Loopback
DHCPv6 relay
DHCPv6 server

IPv6

v4/v6 dual stack
ICMPv6
ICMPv6 redirect
IPv6 Path MTU Discovery
IPv6 Neighbor Discovery
Stateless Auto-configuration
Manual Configuration
DHCPv6
SNMP over IPv6
SSH over IPv6
IPv6 Telnet Support
IPv6 DNS Resolver
IPv6 RADIUS Support
IPv6 TACACS+ Support
IPv6 Syslog Support
IPv6 SNTP Support
IPv6 TFTP Support
Remote IPv6 Ping

Datacenter Features

FIP Snooping
Congestion Notification (CN)
ETS
PFC
DCBX for PFC (CIN/CEE v1.06/IEEE)
VXLAN/ NVGRE support
• Neutron plug-ins for OpenStack
DCBX for ETS (CIN/CEE v1.06/IEEE)
Puppet/ Chef Support
MLAG Support

SDN

OpEn API
OpenFlow v1.0/ v1.3.1 (2)

Security

Static/Dynamic Port Security
802.1x
• Port based
• Mac based
• VLAN assignment
• Guest VLAN
• Unauthenticated VLAN
• QoS assignment
ACL
• L2: MAC SA/DA, Cos, Ether Type
• L3: IPv4 SA/DA, subnet based
• L3 IPv6 SA/DA, flow-label, DSCP
• L4: TCP/UDP port

RADIUS
• Authentication
• Accounting
TACACS+
• Authentication
HTTPS & SSL
SSH 1.5/2.0
User authentication
• Local
• RADIUS/TACACS+
• AAA
DoS Control
MAC filter
DHCP snooping
Control Plane Policy (CoPP)
DHCP snooping

Managment

Industrial standard CLI
CLI filtering
TELNET/SSH
TFTP/XMODEM/FTP/HTTP/SCP/SFTP
    soconfiguration download/upload
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
sFlow v5
Cable test
Email aler ting
Auto install