

## Product Overview

The Centec E530 Series Routing Switches (whose abbreviation is “E530”) are high performance switches designed based on Centec’s sixth generation ethernet switching chip CTC7132. E530’s product position is to meet the requirements of next generation Enterprise, Data Center, Metro and HCI (Hyper-Converged Infrastructure) networks.

E530’s CentecOS system software supports mainstream protocols and applications which can be conveniently deployed and managed.

The E530 Series Switches currently includes following configurations: E530-24X2C/E530-24X2Q/ E530-24T8X/E530-48T4X/E530-48S4X/E530-48P4XJ/E530-24P4XJ.



Figure 1 Centec E530 Series

## Features

### Technical highlights

- Standard 1RU pizza-box solution
- Up to 880G bps switching capacity
- Cut-Through switching method
- Very low system power consumption
- L2/L3/Data Center capability
- Support NVGRE/ VXLAN/ GENEVE, Support Tunnel

Routing & Bridging without limitation.

- Configurable profiles for different MAC/IP/Data Center distribution

- Up to 96K MAC and 56K IP Routing tables
- RJ45 Console port and Out-band RJ45 Eth Management port

### Layer 2 Features

- Up to 96K L2 Forwarding Entries
- Jumbo Frames (9600 Bytes)
- 802.1d Spanning Tree Protocol
- 802.1w Rapid Spanning Tree Protocol
- 802.1s Multiple Spanning Tree Protocol
- 802.1ab Link Layer Discovery Protocol
- 802.3x Flow Control
- Storm Control
- MAC limit per port/rate limiting per port
- 802.1Q VLAN(4094 VID)
- Private VLANs
- Port/MAC based VLAN
- 802.1ad QinQ/VLAN Mapping
- 802.3ad Link Aggregation/LACP
- Multi-Chassis Link Aggregation (MLAG)

### Layer 3 Features

- Up to 56K IPv4 Routes
- IPv4 standard support, ICMP, ARP
- VRF

- RIP v1/v2
- OSPF
- BGP
- 64-way Equal Cost Multi-path Routing (ECMP)
- VRRP /VRRP v3
- Virtual ARP (VARP)
- IS-IS
- URPF
- IP Unnumbered

### Multicast

- IGMP v1/v2/v3 snooping/ IGMP
- IGMP Fast Leave & Static Join/ IGMP proxy

### Metro Features

- LDP
- MPLS Forwarding
- VPWS
- VPLS
- MPLS OAM
- MPLS Stats
- L2VPN/L3VPN
- MPLS ACL
- MPLS QoS

### Data Center DCB Features

- Data Center TCP
- Per-Priority Flow Control (PFC)
- Data Center Bridging Extensions (DCBX)
- NVGRE, VXLAN, GENEVE
- Open API interfaces to achieve SDN
- EVPN
- IPFIX

### Reliability Features

- ERPS (Ethernet Ring Protection Switching)
- ITU-T G.8031/Y.1342 ELPS protocol
- ITU-T G.8032/Y.1344 ERPS protocol
- Ethernet OAM: IEEE 802.1ag/Y.1731
- Link OAM IEEE802.1ah (EFM) support

### QoS Features

- Up to 8 unicast queue, 4 multicast queue and 1 SPAN queue per port
- Strict priority queueing
- 802.1p based classification
- DSCP based classification and remarking
- Egress Rate Shaping/WRR
- Policers
- Rate limiting

### Security

- Centralized port-based and MAC-based 802.1x authentication/access accounting/keep alive
- Port based MacSec
- Standard and extended ACL.
- MAC port binding, port isolation, private VLAN, MAC security and MAC filtering
- DoS attack and CPU traffic protection
- RADIUS
- TACACS+
- COPP(Control Plane Protect)

### Advanced Monitoring and Provisioning

- CPU Mirror
- Elephant Flow Detection(EFD)
- Latency monitor \*
- Buffer monitor \*
- Microburst Detection \*

### Network Management

- SmartConfig
- 100/1000 Management Port

- RS-232 Serial Console Port
- USB Port
- Telnet and SSHv1/v2
- AAA
- TFTP/FTP
- SNMPv1/v2/v3
- Syslog
- Role based Access Control
- User block feature
- Industry Standard CLI
- Blue Beacon LED for system identification
- WEB UI
- SmartConfig

Notes: Features remarked with "\*" are in roadmap.

## Ordering Information

Product	Description
E530-24X2C	24 x 10GE SFP+ ports 2 x 100GE QSFP28 ports Dual modular pluggable AC power supply Front-Rear Airflow, fixed FAN
E530-24X2Q	24 x 10GE SFP+ ports 2 x 40GE QSFP+ ports Dual modular pluggable AC power supply Front-Rear Airflow, fixed FAN
E530-24T8X	Standard 1U 19" rack mountable 24x10/100/1000 Base-T ports 8x10GE SFP+ ports Single built-in AC power supply Front-Rear Airflow, fixed FAN
E530-48T4X	48 x 1GE Base-T ports 4 x 10GE SFP+ ports Dual modular pluggable AC power supply Front-Rear Airflow, fixed FAN
E530-48S4X	48 x 1GE SFP ports 4 x 10GE SFP+ ports Dual modular pluggable AC power supply Front-Rear Airflow, fixed FAN
E530-48P4XJ	Standard 1U 19" rack mountable 48 x 1GE Base-T ports , PoE 802.3af/at 4 x 10GE SFP+ ports 2 Fixed AC power supply Front-Rear Airflow, fixed FAN
E530-24P4XJ	Standard 1U 19" rack mountable 24 x 1GE Base-T ports , PoE 802.3af/at 4 x 10GE SFP+ ports 1 Fixed AC power supply Front-Rear Airflow, fixed FAN

## Applications

E530 with 1GE + 10GE/40GE/100GE ports are suitable for HCI (Hyper-Converged Infrastructure) networks. Using 1GE ports for management network and using 10G/40G/100G ports for data traffic network:

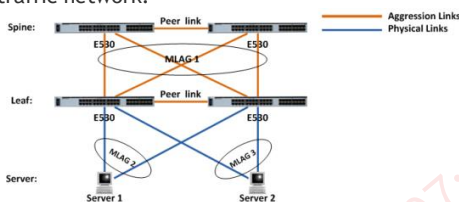


Figure 2 HCI Networks with E530

E530 series provide 1GE/10GE/40GE/100GE ports for Access or Aggregation switches:

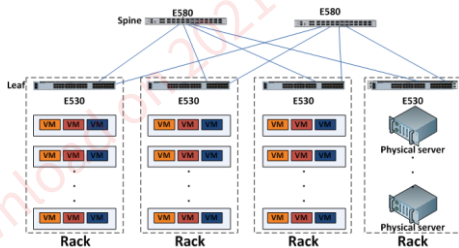


Figure 3 Data Center Servers Access Network with E530

## Performance comparison

Product	E530-24X2C	E530-24X2Q	E530-24T8X	E530-48T4X	E530-48S4X	E530-48P4XJ	E530-24P4XJ
Switch capability (Gbps)	880	640	208	176	176	176	128
Throughput (Mpps)	540	480	155	132	132	132	95.2
power consumption (W)	53W /59W	53W /59W	52W /55W	65W /70W	52W /55W	780W	390W



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