

16*100/1000M SFP, 8*1G SFP/RJ45 Combo, 4*1G/2.5G SFP
Layer 2+ Managed Ethernet Switch
DK2210M-16S8GC4S



Overview

DPTEK DK2210M-16S8GC4S is the Layer 2+ managed Gigabit switch. The series deliver full Gigabit access and unparalleled scalability to 2.5G performance. It provides high-density performance, Layer 3 static routing with 68Gbps switching capacity. The DK2210M-16S8GC4S provides comprehensive end to end QoS as well as flexible and rich management, security settings, which can meet the high speed, secure and smart requirement for small and medium-size enterprise networks based on cost effective price. The powerful network security features also make the DK2210M-16S8GC4S perform effective data traffic control for ISP and enterprise VoIP, video streaming, and multicast applications.

Features:

- 4*1G/2.5G SFP ports uplink, 16*100/1000M SFP ports + 8*1G SFP/RJ45 COMBO ports downlink, 1*RJ45 console interface and 1*USB port for switch basic management and setup
- **Hardware:** Marvell AC5 series 1.2GHz CPU, Marvell AC5 series switch chipsets, 512MB RAM and 512MB flash
- **Layer 3 features:** IPv4/IPv6 static routing, DHCPv4/ DHCPv6 client, DHCPv4 relay, DHCP relay.
- **Port features:** Supports port aggregation, IEEE802.3x flow control, port isolation, port mirroring, loop detection and broadcast storm suppression
- **VLAN:** Supports IEEE802.1Q tagged VLAN, mac based VLAN, IP based VLAN, protocol based VLAN, voice VLAN and private VLAN.
- **QinQ:** Supports port-based, VLAN-based and flow-based QinQ
- Supports **GVRP/LLDP/SPAN/RSPAN/DHCPv4 snooping**
- **Layer 2 ring network protocol:** Supports STP, RSTP, MSTP, G.8032 ERPS protocol, single ring, sub ring
- **Multicast:** IGMP snooping, IGMP v1, v2, v3, PIM-SM
- **QoS:** QoS class, remarking, Supports SP, WRR queue scheduling, Ingress/Egress port-based rate-limit and policy-based QoS
- **Security:** Supports ACL, 802.1x, port-security, IP source guard, ARP-check, DAI, anti-gateway ARP spoofing, Ddos attack protection, telnet/SSH/HTTP/HTTPS user access control and AAA.
- **Reliability:** Loop detect based on port or VLAN, the Ethernet in the first mile 802.3ah
- **Management:** Supports IPv4/IPv6 dual stack management, system log management, user management, login service management, firmware management, web management, CLI management, fault detection, DNS, NTP, sFlow, SNMP, MQTT, RMON and dual partition management.
- **Application protocol:** Supports telnet server, telnet client, SCP, SFTP, SSH server, TACACS and TFTP client

Technical Specification

Model No.	DK2210M-16S8GC4S		
Interface	Fiber ports	100/1000M Fiber ports	Gigabit Combo
	4	16	8
Ethernet	16*100/1000Base-X SFP 8*COMBO SFP/RJ45 4*1G/2.5GBase-X SFP		
CPU	Marvell AC5 series 1.2GHz		
Size of RAM	512MB		
Size of Flash	512MB		
Switch chip model	Marvell AC5 series		
Management port	1*RJ45 Console port (115200,8,N,1), 1*USB 2.0 for configuration and firmware update		
Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Ethernet IEEE 802.3ab 1000Base-T Ethernet IEEE 802.3z 1000Base-X Ethernet IEEE802.3x Flow Control and Back Pressure IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Protocol IEEE 802.1Q VLAN ITU-T G.8032 ERPS IEEE 802.1X Port Authentication Network Control IEEE 802.1ab LLDP IEEE 802.3ad LACP		
LED Indicators			
PWR (Power indicator)	Off: the device is power off or failed	On: the device power on is normal	
SYS (System status indicator)	Blinking: device initialization	On: device on normal operation	
USB (USB status indicator)	Off: USB flash drive not insert or not detected by device		
	On: USB flash drive is detected by device		
	Blinking: the device is reading and writing the data from USB flash drive		
1-8 (Copper ports indicators) Green	Off: ports link down		
	On: ports link up		
	Blinking: data on TX/RX		
1-8 (Copper speed indicators) Yellow	Off: ports on 10/100M		
	On: ports on 1000M		
1-8 (Fiber ports indicators) Green	Off: ports link down		
	On: ports link up		
	Blinking: data on TX/RX		

9-28 (Fiber ports indicators) Green	Off: ports link down
	On: ports link up
	Blinking: data on TX/RX
Power parameter	
Input voltage	1* AC 100-240V input on default 1* DC 36-72V input optional 2* AC 100-240V input optional 1* AC 100-240V input + 1* DC 36-72V input optional
Total power consumption	Full loading ≤40W
Over-current protection	Support
Layer 2 switching	
Port aggregation	Support GE port aggregation Support 2.5GE aggregation Support static aggregation Support LACP dynamic aggregation Up to 64 aggregation groups and up to 8 ports per group
Port features	Support IEEE802.3x flow control Support interface counters Support port isolation Port mirroring (One-to-One, Many-to-One) Support loop detection (Port-based; VLAN-based) Support broadcast storm suppression (broadcast; unknown multicast; unknown unicast)
VLAN	IEEE802.1Q tagged VLAN Mac based VLAN IP based VLAN Protocol based VLAN Voice VLAN, specially divide VLAN for user voice data flow Private VLAN, divide a VLAN broadcast domain into multiple subdomains to form a double-layer VLAN structure VLAN range: 1-4094 Support access mode/trunk mode/hybrid mode
Mac-address table management	Support static Mac-address management Support dynamic Mac-address Management Support filtering Mac-address Support MAC limit based on port and VLAN Support MAC flapping based on port and VLAN 16K Mac-address table size
GVRP	Normal mode Fixed mode Forbidden mode
QinQ	Port-based QinQ VLAN-based QinQ VLAN mapping Flow-based QinQ
LLDP	Link Layer Discovery Protocol Med
SPAN	Number of Sessions: 7 Many-to-one

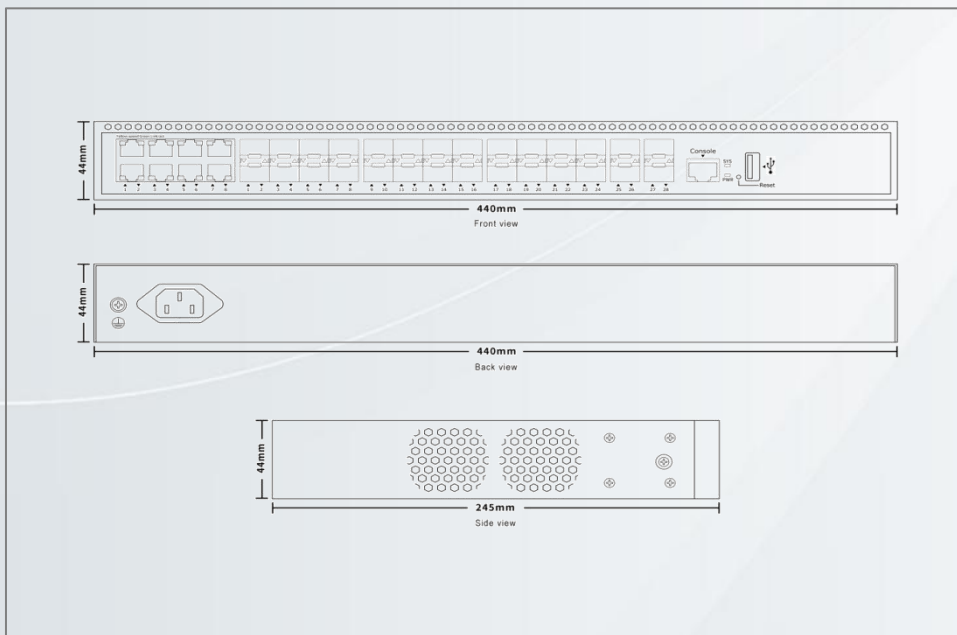
RSPAN	Remote Switch Port Analyzer
MSTP	802.1D STP 802.1W RSTP 802.1S MSTP BPDU Guard Number of Single Ring Device Connections: 20
ERPS G.8032	Major ring Sub ring Recovery time $\leq 20\text{ms}$ Number of Single Ring Device Connections: No limit
QoS	QoS Class, Remarking Support SP, WRR Queue Scheduling Ingress Port-based Rate-limit Egress Port-based Rate-limit Egress port-queue shaper Policy-based QoS Port Queue Numbers: 8
DHCPv4 Snooping	DHCP snooping trust port DHCP snooping option-82 DHCP snooping circuit-id and remote-id customized
L2 Multicast	
IGMP	IGMP v1, v2, v3
IGMP Snooping	Internet Group Management Protocol Snooping Fast Leave Multicast Table Size: 1K
PIM-SM	Protocol Independent Multicast-Sparse Mode
Security features	
ACL	IP Standard ACL IP Extended ACL MAC extend ACL IPv6 ACL Time Range ACL apply on VLAN ACL Entrys, include input and output
802.1x	Port access control Mac-address access control RADIUS server
Port-security	Port-security
IP source guard	IP Source Guard, Port-based IP/Mac Binding Access
ARP-check	Support ARP-check and ARP packet filtering for illegal users
DAI	Dynamic ARP Inspection
Anti-gateway ARP Spoofing	Prevent Gateway ARP Spoofing
Ddos	Ddos attack protection
Access control	Support Telnet/SSH/HTTP/HTTPS user access control

AAA	RADIUS authentication access switch TACACS authentication access switch Authorization
Reliability	
Loop Detect	Loop detect, based on port or VLAN
EFM	The Ethernet in the first mile, 802.3ah
Management & Maintenance functions	
Dual Stack	IPv4 and IPv6 Dual Stack Management
System Log Management	Syslog Level 7 to 0 Corresponding Debug/Info/Notice/Warning/Err/Critical/Alert Support connecting up to 3 Servers For IPv4 and IPv6
User Management	Support password protection, support MD5/SHA256/SHA512 algorithm Local Management of User Privilege Remote authorization by RADIUS or TARCAS Enable privilege protection User password complexity requirements User login fail protection User Privilege Level 0 to 15
Login Service Management	Up to 8 users online simultaneously Access control based on IPv4 or IPv6 ACL
Firmware Management	Firmware upgraded by WEB Firmware upgraded by CLI Dual partition
Web Management	Web Management Support HTTP V1.1 Support HTTPS For IPv4 and IPv6
CLI management	Console/Telnet command line management
Fault Detection	Ping/Traceroute, For IPv4 and IPv6 Dying gasp optional Optical transceiver DDM One click fault information collection Cable detection
DNS	Domain Name System
NTP	Network Time Protocol, For IPv4 and IPv6 Support domain name configuration
Configuration Import /Export	FTP/TFTP based remote configuration import and export
sFlow	Sampled flow
SNMP	Version SNMPV2C/V3
MQTT	Message Queuing Telemetry Transport
RMON	Support RMON (Remote Monitoring) alarm
Dual partition management	Support dual partition switching

Application Protocol Functions	
Telnet server	Support telnet server for IPv4 and IPv6
Telnet client	Support telnet client for IPv4 and IPv6
SCP (Secure Copy Protocol)	SCP client/server for IPv4 and IPv6
SFTP	sftp client/server for IPv4 and IPv6
SSH server	Support login based on user password-SSH2, support IPv4, IPv6 Support public key-based login
TACACS	Support TACACS (the terminal access controller accesses the control system)
TFTP	Support TFTP Client
Layer 3 features	
Static Route	Support VLAN interface and route port IPv4 static routing table entry configuration ARP dynamic learning and static configuration IPv6 static routing table entry configuration Neighbor discovery and static configuration Routing prefix table size 4k for IPv4, for IPv6 divide by 4
DHCPv4 Client	Dynamic host configuration protocol for IPv4
DHCPv6 Client	Dynamic host configuration protocol for IPv6
DHCPv4 Relay	DHCP Relay for IPv4
DHCPv4 Server	DHCP Server for IPv4
Switching features	
Switching capacity	68Gbps
Packet forwarding rate	50.592Mpps
MAC address table	16K
VLAN	4K
Buffer	12Mbit
Forwarding delay	<5us
Jumbo Frame	Support 10Kbytes
MDI/MDIX	Support
Watchdog	Support
Mechanical structure	
Installation method	Desktop; Rack-mount
Dimension(W*D*H)mm	440*245*44mm
Weight	3.70 kg

Operating environment	
Operating temperature	0°C ~ +50°C
Storage/transportation temperature	-10°C ~ +70°C
Relative humidity	Operation humidity: 10%-90%RH Storage humidity: 5%-95%RH
Protection	Surge protection of power: 4KV
	Surge protection of Ethernet ports: 4KV
	ESD: Contact 6kV, Air 8kV
Certification	CE/RoHS/FCC
MTBF	> 100,000 hours
Warranty	3 years

Structure diagram



Order information

Model	Description
DK2210M-16S8GC4S	Layer 2+ managed Ethernet switch with 4*1G/2.5G SFP slots + 16*100/1000M SFP ports, 8*1G SFP/RJ45 COMBO ports, AC 100-240V 50/60Hz