

# Спецификация

- Управляемый PoE коммутатор



## Технические характеристики

Модель	Коммутатор Optimus U11M-16G/4GS
Чипсет	RTL8214FC + RTL8382M + RTL8218D
Сетевые порты	16 портов до 1000Mbps RJ-45, PoE 4 порта до 1000 Mbps RJ-45, Uplink (combo) 4 порта до 1000 Mbps SFP 1 консольный порт RJ-45
Сетевые протоколы	IEEE802.3 10Base-T IEEE802.3u 100Base-TX IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-SX/LX standards IEEE 802.3i, IEEE 802.3u, IEEE802.3ab, IEEE802.3x, IEEE802.3az
PoE стандарты	IEEE 802.3af/at, Active POE type A, контакты 1/2(+),3/6(-)
Watchdog	Да
PoE Исходящий ток	На порт 52В DC, 570мА, ≤25.4Вт
PoE Бюджет	235 Вт
Метод коммутации	Store-and-Forward
Размер таблицы MAC-адресов	8К
Пакетная буферная память	4,1 Мбит
Размер Jumbo frame	10 Кбайт
Коммутационная способность	40 Гбит/с
Скорость пересылки пакетов	26,784 Mpps
Светодиоды состояния	Power, System, Link/Activity
Напряжение питания	220~240В AC, 50-60 Гц

Потребление	До 240Вт
Требования к окружающей среде	Рабочая температура: от -30°C до 45°C Температура хранения: от -40°C до 70°C Влажность 10~90% (без образования конденсата)
Физические характеристики	Размеры: 440x180x45мм Вес: 3 кг
Комплект поставки	Коммутатор x 1; Кабель питания x 1; Комплект для крепления в 19" стойку x 1; Руководство пользователя x 1
Система охлаждения	Активная

### Спецификация программного обеспечения

L2 Features		
Flow Control	802.3x (Full-duplex)	Yes
	Back-Pressure (Half-duplex)	Yes
Spanning Tree	IEEE 802.1D (STP)	Yes
	IEEE 802.1w (RSTP)	Yes
	IEEE 802.1s (MSTP)	16 instances
	Auto Edge Port	Yes
	BPDU Filtering	Yes
	ERPS	Yes
Link Aggregation	Self-Loop Detection	Yes
	IEEE 802.3ad LACP	Yes
	Static Trunk	Yes
	Max. Group	8
	Max. Ports/Group	8
Static Routing	Traffic Load Balancing	Yes
	Static ARP	Yes (IPv4/IPv6)
Address Resolution Protocol (ARP)	Static ARP	Yes
VLAN		
VLAN	Static VLAN	256
	Port-based	Yes
	IEEE 802.1Q Tagged-based	Yes
	Protocol-based	8 groups
	MAC-based	256
Voice VLAN	OUI Mode (Auto/Manual)	16 OUI
Surveillance VLAN	OUI Mode (Auto/Manual)	16 OUI
QinQ (IEEE 802.1ad)	Basic	Yes

GARP VLAN Registration Protocol (GVRP)		Yes
<b>Multicast</b>		
Common	Multicast Groups	256
	Immediate Leave	Yes
	Static/Forbidden Router Port	Yes
	Static/Forbidden Forward Port	Yes
	Filtering	128 profiles
	Throttling	Yes
IGMP Snooping	IGMP v1/v2	Yes
	IGMP v3 Basic (BISS)	Yes
	IGMP v2/v3 Querier	Yes
MLD Snooping	MLD v1/v2	Yes
Multicast VLAN Registration (MVR)		Yes (IPv4)
<b>QoS Features</b>		
Priority Queue		8 queues/port
Queue Scheduling	WRR	Yes
	WFQ	Yes
	Strict Priority	Yes
	Hybrid (WRR+SP or WFQ+SP)	Yes
Class of Service	Port-based	Yes
	802.1p	Yes
	IP TOS Precedence	Yes
	IP DSCP	Yes
Trusted QoS		Yes
Rate Limit	Port-based (Ingress/Egress)	Yes
<b>Access Control List (ACL)</b>		
Access Rules		1024
ACL Type	L2/L3/L4	Yes
	MAC-based	512
	IPv4-based	
	IPv6-based	
PoE Function	Power	Yes
	Current	Yes
	Voltage	Yes
	PoE Watch Dog	Yes
<b>Security</b>		
AAA	Authentication	Yes
TACACS+		8
RADIUS		8
Authentication Manager	IEEE 802.1X	Yes
	MAC Auth	Yes

	Web Auth	Yes
	Guest VLAN	Yes
	Port-based	Yes
	Host-based	Yes
Account Manager	Local Authentication	Yes
	Multiple User Account	8
	Multi-Level Security (Manager/Operator)	Yes
	Password Recovery Procedures	Yes
Management Access	Management VLAN	Yes
	Management ACL	256
SSL	SSLv2	Yes
	SSLv3	Yes
	TLSv1	Yes
WebUI	HTTPS	Yes
CLI	SSH v1/v2	Yes
Port Security	Dynamic Lock	256
Storm Control	Broadcast	Yes
	Unknown Multicast	Yes
	Unknown Unicast	Yes
Spanning Tree	BPDU Guard	Yes
Protected Port (Port Isolation)		Yes
Black Hole MAC		Yes
CPU Defense Engine		Yes
DoS Prevention		Yes
DHCP Snooping (with Option 82)		Yes
Dynamic ARP Inspection		Yes
IP Source Guard		256
IP/MAC/Port Binding (IMPB)		Yes
Dynamic VLAN Assignment		Yes
IPv6		
IPv6 Host	Auto Configuration	Yes
	Static IPv6 Address and Prefix Length	Yes
	Static IPv6 Default Gateway	Yes
	IPv6 Neighbor Discovery (ND)	Yes
	IPv6 Duplicate Address Detection	Yes
	ICMPv6	Yes
IPv6 Application	HTTP/HTTPS	Yes
	TELNET	Yes
	SSH	Yes
	SNMP	Yes

	TFTP	Yes
	Syslog	Yes
	PING	Yes
	DHCPv6	Yes
<b>Management</b>		
CLI	Console	3 sessions
	Telnet (RFC854)	
WebUI	HTTP	Yes
SNMP	v1	Yes
	v2c	Yes
	v3	Yes
File Management	Firmware Upgrade/Backup	Yes
	Dual Images	Yes
	Configuration Download/Backup	Yes
	Multiple Configurations	Yes
Upload/Download	TFTP (RFC783)	Yes
	HTTP	Yes
	UART	Yes
Time Management	Local	Yes
	SNTP	Yes
Port Management	Friendly Port Name (Port Description)	Yes
	Error Disabled Recovery	Yes
Line Management	Console	Yes
	Telnet (RFC854)	Yes
	SSH v1/v2	Yes
DHCP	Client	Yes
DNS	Client	Yes
Software Reset Button		Yes
EEE (802.3az)		Yes
RMON Management		32 entries / type
<b>Discovery</b>		
IEEE 802.1AB Link Layer Discovery Protocol (LLDP)		Yes
ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)		Yes
<b>Diagnostics</b>		
Mirroring	Port-based (Many to One)	4 sessions
Syslog (RFC3164)	Local RAM	Yes
	Local Flash	Yes
	Remote Server	8
System Diagnostics	CPU Utilization	Yes
	Memory Utilization	Yes

	Port Utilization	Yes
	Technical Support Log	Yes
Port Diagnostics	Cable Test	Yes
	Fiber Module Status	Yes
Network Diagnostics	Ping Test	Yes
	Traceroute	Yes
UDLD		Yes
<b>MIB</b>		
RFC1213 MIBII (System & Interface groups)		Yes
RFC2819 RMON I (1,2,3, & 9 groups)		Yes
RFC1215 Generic Traps		Yes
RFC1493 Bridge		Yes
RFC2674 Bridge MIB Extensions		Yes
RFC2737 Entity		Yes
RFC3635 Ethernet-Like		Yes
RFC2863 Interface Group		Yes
SNMP-Community-MIB		Yes
SNMPv3-MIB		Yes