

ТЕХНИЧЕСКИ СПЕЦИФИКАЦИИ

по покана за вътрешно конкурентен избор на изпълнител за обществена
поръчка с предмет:

**„Доставка на КОМПЮТЪРНО ОБОРУДВАНЕ, ПЕРИФЕРНИ УСТРОЙСТВА, РЕЗЕРВНИ
ЧАСТИ И ОФИС ТЕХНИКА“, за нуждите на СУ „Св. Климент Охридски“, по 10 (десет)
обособени позиции:**

ПОЗИЦИЯ 9. МРЕЖОВИ УСТРОЙСТВА И КОМПОНЕНТИ, ЗАЩИТА НА ЕЛЕКТРОЗАХРАНВАНЕТО

9.1 5 портов 10/100/1000 комутатор - 20 броя	
Key Features	Inexpensive Gigabit solution for Home/SOHO Five 10/100/1000 Mbps Gigabit ports 10 Gbps switching fabric Auto MDI/MDIX crossover for all ports Secure store-and-forward switching scheme Full/half-duplex for Ethernet/Fast Ethernet speeds IEEE 802.3x Flow Control Supports 9,000 Byte Jumbo Frames Supports IEEE 802.1p QoS (4 Queues, Strict Mode) Supports Cable Diagnostics Function RoHS compliant Plug-and-play installation
Standards	<ul style="list-style-type: none"> • IEEE 802.3 10BASE-T Ethernet (twistedpair copper) • IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper) • IEEE 802.3ab 1000BASE-T Gigabit Ethernet (twisted-pair copper) • ANSI/IEEE 802.3 NWay auto-negotiation • IEEE 802.3x Flow Control • IEEE 802.1p QoS • IEEE 802.3az Energy-Efficient Ethernet (EEE)
Protocol	<input type="checkbox"/> CSMA/CD
Data Transfer Rates	<ul style="list-style-type: none"> • Ethernet: • 10 Mbps (half duplex) • 20 Mbps (full duplex) <input type="checkbox"/> Fast Ethernet: • 100 Mbps (half duplex) • 200 Mbps (full duplex) <input type="checkbox"/> Gigabit Ethernet: • 2000 Mbps (full duplex)
Network Cables	<ul style="list-style-type: none"> • 10BASE-T: • UTP CAT 3, 4, 5/5e (100 m max.) <input type="checkbox"/> EIA/TIA-586 100-ohm STP (100 m max.) <input type="checkbox"/> 100BASE-TX, 1000BASE-T: • UTP CAT 5/5e (100 m max.) • EIA/TIA-568 100-ohm STP (100 m max.)
Media Interface Exchange	<input type="checkbox"/> Auto MDI/MDIX adjustment for all ports

LED Indicators	<ul style="list-style-type: none"> • Per port: Link/Activity/Speed • Per device: Power
Transmission Method	<input type="checkbox"/> Store-and-forward
MAC Address Table	<input type="checkbox"/> 2K
MAC Address Learning	<input type="checkbox"/> Automatic update
Packet Filtering/Forwarding Rates	<ul style="list-style-type: none"> • Ethernet: 14,880 pps per port • Fast Ethernet: 148,800 pps per port • Gigabit Ethernet: 1,488,000 pps per port
RAM Buffer	<input type="checkbox"/> 128 KB per device
DC Input	<input type="checkbox"/> External 5 V/1 A Level “V” Power Adapter
Power Consumption	<ul style="list-style-type: none"> • Power On (Standby): • DC input: 0.5 watts • AC input: 1.0 watts <input type="checkbox"/> Maximum: • DC input: 2.01 watts <input type="checkbox"/> AC input: 3.10 watts
9.2 8 портов 10/100/1000 коммутатор - 30 броя	
Key Features	<ul style="list-style-type: none"> • Inexpensive Gigabit solution for Home/SOHO • Eight 10/100/1000 Mbps Gigabit ports • 16 Gbps switching fabric • Auto MDI/MDIX crossover for all ports • Secure store-and-forward switching scheme • Full/half-duplex for Ethernet/Fast Ethernet speeds • IEEE 802.3x Flow Control • Supports 9,000 Byte Jumbo Frames • Supports IEEE 802.1p QoS (4 Queues, Strict Mode) • Supports Cable Diagnostics Function • RoHS compliant • Plug-and-play installation
Standards	<ul style="list-style-type: none"> • IEEE 802.3 10BASE-T Ethernet (twistedpair copper) • IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper) • IEEE 802.3ab 1000BASE-T Gigabit Ethernet (twisted-pair copper) • ANSI/IEEE 802.3 NWay auto-negotiation • IEEE 802.3x Flow Control • IEEE 802.1p QoS • IEEE 802.3az Energy-Efficient Ethernet (EEE)
Protocol	<input type="checkbox"/> CSMA/CD
Data Transfer Rates	<ul style="list-style-type: none"> • Ethernet: • 10 Mbps (half duplex) • 20 Mbps (full duplex) <input type="checkbox"/> Fast Ethernet: • 100 Mbps (half duplex) • 200 Mbps (full duplex) <input type="checkbox"/> Gigabit Ethernet: • 2000 Mbps (full duplex)

Network Cables	<ul style="list-style-type: none"> • 10BASE-T: • UTP CAT 3, 4, 5/5e (100 m max.) <input type="checkbox"/> EIA/TIA-586 100-ohm STP (100 m max.) <input type="checkbox"/> 100BASE-TX, 1000BASE-T: • UTP CAT 5/5e (100 m max.) • EIA/TIA-568 100-ohm STP (100 m max.)
Media Interface Exchange	<input type="checkbox"/> Auto MDI/MDIX adjustment for all ports
LED Indicators	<ul style="list-style-type: none"> • Per port: Link/Activity/Speed • Per device: Power
Transmission Method	<input type="checkbox"/> Store-and-forward
MAC Address Table	<input type="checkbox"/> 8K
MAC Address Learning	<input type="checkbox"/> Automatic update
Packet Filtering/Forwarding Rates	<ul style="list-style-type: none"> • Ethernet: 14,880 pps per port • Fast Ethernet: 148,800 pps per port • Gigabit Ethernet: 1,488,000 pps per port
RAM Buffer	<input type="checkbox"/> 128 KB per device
DC Input	<input type="checkbox"/> External 5 V/1 A Level "V" Power Adapter
Power Consumption	<input type="checkbox"/> Power On (Standby): <ul style="list-style-type: none"> • DC input: 0.55 watts • AC input: 1.0 watts <input type="checkbox"/> Maximum: • DC input: 2.8 watts <input type="checkbox"/> AC input: 4.5 watts
Device Dimensions (W x D x H)	<input type="checkbox"/> 162 x 102 x 28 mm (6.3 x 4 x 1.1 inches)
Certifications	<ul style="list-style-type: none"> • FCC Class B • ICES-003 Class B • CE Class B • C-Tick Class B • VCCI Class B • cUL • CB

9.3 24 портов 10/100/1000 коммутатор не управляем - 20 броя	
Standards and Protocols	IEEE 802.3i, IEEE 802.3u, IEEE 802.3ab , IEEE 802.3x
Interface	24 10/100/1000Mbps RJ45 Ports (Auto Negotiation/Auto MDI/MDIX)
Network Media	10BASE-T: UTP category 3, 4, 5 cable (maximum 100m) 100BASE-TX/1000BASE-T: UTP category 5, 5e or above cable (maximum 100m)
Fan Quantity	Fanless
Power Supply	100-240VAC, 50/60Hz
Power Consumption	Maximum: 13.1W (220V/50Hz)

Dimensions (W x D x H)	11.6*7.1*1.7 in. (294*180*44 mm)
Switching Capacity	48Gbps
Packet Forwarding Rate	35.7Mpps
MAC Address Table	8K
Jumbo Frame	10KB
Green Technology	Yes
Transfer Method	Store-and-Forward
Certification	FCC, CE, RoHS
Package Contents	24-Port Gigabit Desktop/Rackmount Switch Power Cord Installation Guide Rackmount Kits Rubber Feet
Environment	Operating Temperature: 0°C~40°C (32°F~104°F); Storage Temperature: -40°C~70°C (-40°F~158°F); Operating Humidity: 10%~90% non-condensing; Storage Humidity: 5%~90% non-condensing

9.4 16 портов 10/100/1000 коммутатор - 15 броя	
Number of 10/100/1000BASE-TX ports	<input type="checkbox"/> 16 ports
Number of Combo 1000BaseT/SFP ports	<input type="checkbox"/> 4 ports
Switch Capacity	<input type="checkbox"/> 40 Gbps
64-Byte Packet Forwarding Rate	<input type="checkbox"/> 29.8 Mpps
MAC Address Table Size	<input type="checkbox"/> 16K
Packet Buffer	<input type="checkbox"/> 4.1 MB
Jumbo Frame	<input type="checkbox"/> Up to 10,000 Bytes
Diagnostic LED Indicators	<ul style="list-style-type: none"> • Power (per device) • Link/Activity/Speed (per 10/100/1000 Mbps port) • Link/Activity/Speed (per combo port)
Power Consumption (Standby/Maximum)	<input type="checkbox"/> 5.56W / 13.02W
Power Input	<input type="checkbox"/> 10 to 240 VAC, 50/60HZ internal universal power supply
Dimensions (W x D x H)	<input type="checkbox"/> 280 x 180 x 44 mm
Size	<input type="checkbox"/> 19-inch standard rackmounting width or with rackmountable brackets <input type="checkbox"/> 1U Height

Ventilation	<input type="checkbox"/> fanless
Heat Dissipation	<input type="checkbox"/> BTU per hour
Certification	<input type="checkbox"/> CE Class A
Safety	<input type="checkbox"/> cUL, LVD
L2 Features	<ul style="list-style-type: none"> • MAC Address Table: 8K • Flow Control • 802.3x Flow Control • HOL Blocking Prevention • Jumbo Frame up to 10,000 Bytes • IGMP Snooping • IGMP v1/v2 Snooping • IGMP Snooping v3 Awareness • Supports 256 IGMP groups • Supports at least 64 static multicast addresses • IGMP per VLAN • Supports IGMP Snooping Querier • MLD Snooping • Supports MLD v1/v2 awareness • Supports 256 groups • Fast Leave • Spanning Tree Protocol • 802.1D STP • 802.1w RSTP • Loopback Detection • 802.3ad Link Aggregation • Max. 8 groups per device/8 ports per group • Port Mirroring • One-to-One, Many-to-One • Supports Mirroring for Tx/Rx/Both • Multicast Filtering • Forwards all unregistered groups • Filters all unregistered groups • LLDP, LLDP-MED
VLAN	<input type="checkbox"/> 802.1Q Tagged VLAN

	<ul style="list-style-type: none"> • VLAN Group • Max. 256 static VLAN groups • Max. 4094 VIDs • Management VLAN • Asymmetric VLAN • Auto Voice VLAN • Auto Surveillance VLAN <p>Quality of Service (QoS)</p> <ul style="list-style-type: none"> • 802.1p Quality of Service • Queue Handling • Strict • Weighted Round Robin (WRR) • 8 queues per port • Bandwidth Control • Port-based (Ingress/Egress, min. granularity for 10/100/1000Base-T ports is 16 Kb/s) • CoS based on • 802.1p Priority Queues • DSCP • ToS • TCP/UDP port number • IPv6 traffic class
L3 Features	<ul style="list-style-type: none"> • IP Interface • Supports 4 interface • IPv6 Neighbor Discovery (ND) • Static Routing • 124/50 IPv4/6 Static Route Entries
Access Control List (ACL)	<ul style="list-style-type: none"> • Single or multiple ports (each rule) • ACL based on • MAC Address • IPv4 Address (ICMP/IGMP/TCP/UDP) • IPv6 Address (ICMP/TCP/UDP)1 • 802.1p • DSCP • Ether type • IPv6 traffic class • ACL Actions • Permit • Deny • Max. 6 profiles • Max.768 entries • Single or multiple ports (each rule)

Security	<ul style="list-style-type: none"> • Port Security • Supports up to 64 MAC addresses per port • Broadcast/Multicast/Unicast Storm Control • Static MAC • D-Link Safeguard Engine • DHCP Server Screening • Trusted Host • ARP Spoofing Prevention • Max. 64 entries • SSL • Supports v1/v2/v3 • Supports IPv4/IPv6 • Traffic Segmentation • Smart Binding • Discover connected devices and click to bind • ARP Packet Inspection: 256 entries • IP/4/IPv6 Packet Inspection: 127/63 entries • Supports DHCP Snooping
AAA	802.1X Port-based Authentication <ul style="list-style-type: none"> • Supports RADIUS Server • Supports EAP, OTP, TLS, TTLS, PEAP
OAM	<ul style="list-style-type: none"> • Cable Diagnostics • Factory Reset
MIB	<ul style="list-style-type: none"> • 1213 MIB II • 1493 Bridge MIB • 1907 SNMP v2 MIB • 1215 Trap Convention MIB • 2233 Interface Group MIB • Power-Ethernet MIB • LLDP MIB
Management	<ul style="list-style-type: none"> • Multi-Language Web-based GUI • SmartConsole Utility • Telnet Server • TFTP Client • IPv6 Neighbor Discovery • Configurable MDI/MDIX • SNMP • Supports v1, v2, v3 • SNMP Trap • System Log • BootP/DHCP Client • SNTP • ICMPv6 • IPv4/v6 Dual Stack • DHCP Auto Configuration • RMON v1
Power Saving Technology	<ul style="list-style-type: none"> • 802.3az Energy Efficient Ethernet (EEE) (disabled by default) □ Power Saving by: <ul style="list-style-type: none"> • Link Status • Cable Length detection • LED or Port Shut-off • Port Standby mode • System Hibernation mode

9.5 24 портов 10/100/1000 коммутатор - 10 броя	
Number of 10/100/1000BASE-TX ports	<input type="checkbox"/> 24 ports
Number of Combo 1000BaseT/SFP ports	<input type="checkbox"/> 4 ports
Switch Capacity	<input type="checkbox"/> 56 Gbps
64-Byte Packet Forwarding Rate	<input type="checkbox"/> 41.7 Mpps
MAC Address Table Size	<input type="checkbox"/> 16K
Jumbo Frame	<input type="checkbox"/> Up to 10,000 Bytes
Diagnostic LED Indicators	<ul style="list-style-type: none"> • Power (per device) • Link/Activity/Speed (per 10/100/1000 Mbps port)
	<input type="checkbox"/> Link/Activity/Speed (per combo port)
Power Consumption (Standby/Maximum)	<input type="checkbox"/> 6.55W / 16.94W
Power Input	<input type="checkbox"/> 110 to 240 VAC, 50/60HZ internal universal power supply
Dimensions (W x D x H)	<input type="checkbox"/> 440 x 140 x 44 mm
Size	<input type="checkbox"/> 19-inch standard rackmounting width or with rackmountable brackets <input type="checkbox"/> 1U Height
Ventilation	<input type="checkbox"/> fanless
Heat Dissipation	<input type="checkbox"/> 57.79 BTU per hour
Temperature	<ul style="list-style-type: none"> • Operating: -5° to 50°C (23° to 112°F) • Storage: -20° to 70°C (-4° to 158°F)
Certification	<input type="checkbox"/> CE Class A
Safety	<input type="checkbox"/> cUL, LVD
L2 Features	<ul style="list-style-type: none"> • MAC Address Table: 8K • Flow Control • 802.3x Flow Control • HOL Blocking Prevention • Jumbo Frame up to 10,000 Bytes • IGMP Snooping • IGMP v1/v2 Snooping • IGMP Snooping v3 Awareness • Supports 256 IGMP groups • Supports at least 64 static multicast addresses • IGMP per VLAN • Supports IGMP Snooping Querier • MLD Snooping • Supports MLD v1/v2 awareness • Supports 256 groups • Fast Leave • Spanning Tree Protocol

	<ul style="list-style-type: none"> • 802.1D STP • 802.1w RSTP • Loopback Detection • 802.3ad Link Aggregation • Max. 8 groups per device/8 ports per group • Port Mirroring • One-to-One, Many-to-One • Supports Mirroring for Tx/Rx/Both • Multicast Filtering • Forwards all unregistered groups • Filters all unregistered groups • LLDP, LLDP-MED
VLAN	<ul style="list-style-type: none"> • 802.1Q Tagged VLAN • VLAN Group • Max. 256 static VLAN groups • Max. 4094 VIDs • Management VLAN • Asymmetric VLAN • Auto Voice VLAN • Auto Surveillance VLAN
Quality of Service (QoS)	<ul style="list-style-type: none"> • 802.1p Quality of Service • Queue Handling • Strict • Weighted Round Robin (WRR) • 8 queues per port • Bandwidth Control • Port-based (Ingress/Egress, min. granularity for 10/100/1000Base-T ports is 16 Kb/s) <ul style="list-style-type: none"> • CoS based on • 802.1p Priority Queues • DSCP • ToS • TCP/UDP port number • IPv6 traffic class
L3 Features	<ul style="list-style-type: none"> • IP Interface • Supports 4 interface • IPv6 Neighbor Discovery (ND) • Static Routing • 124/50 IPv4/6 Static Route Entries

Access Control List (ACL)	<ul style="list-style-type: none"> • Single or multiple ports (each rule) • ACL based on • MAC Address • IPv4 Address (ICMP/IGMP/TCP/UDP) • IPv6 Address (ICMP/TCP/UDP)1 • 802.1p • DSCP • Ether type • IPv6 traffic class • ACL Actions • Permit • Deny • Max. 6 profiles • Max.768 entries • Single or multiple ports (each rule)
Security	<ul style="list-style-type: none"> • Port Security • Supports up to 64 MAC addresses per port • Broadcast/Multicast/Unicast Storm Control • Static MAC • D-Link Safeguard Engine • DHCP Server Screening • Trusted Host • ARP Spoofing Prevention • Max. 64 entries • SSL • Supports v1/v2/v3 • Supports IPv4/IPv6 • Traffic Segmentation • Smart Binding • Discover connected devices and click to bind • ARP Packet Inspection: 256 entries • IP/4/IPv6 Packet Inspection: 127/63 entries • Supports DHCP Snooping
AAA	802.1X Port-based Authentication <ul style="list-style-type: none"> • Supports RADIUS Server • Supports EAP, OTP, TLS, TTLS, PEAP
OAM	<ul style="list-style-type: none"> • Cable Diagnostics • Factory Reset
MIB	<ul style="list-style-type: none"> • 1213 MIB II • 1493 Bridge MIB • 1907 SNMP v2 MIB • 1215 Trap Convention MIB • 2233 Interface Group MIB • Power-Ethernet MIB • LLDP MIB

Management	<ul style="list-style-type: none"> • Multi-Language Web-based GUI • SmartConsole Utility • Telnet Server • TFTP Client • IPv6 Neighbor Discovery • Configurable MDI/MDIX • SNMP • Supports v1, v2, v3 • SNMP Trap • System Log • BootP/DHCP Client • D-Link Network Assistant support • SNTP • ICMPv6 • IPv4/v6 Dual Stack • DHCP Auto Configuration • RMON v1
Power Saving Technology	<ul style="list-style-type: none"> • 802.3az Energy Efficient Ethernet (EEE) (disabled by default) <input type="checkbox"/> Power Saving by: <ul style="list-style-type: none"> • Link Status • Cable Length detection • LED or Port Shut-off • Port Standby mode • System Hibernation mode

9.6 48 портов 10/100/1000 коммутатор - 10 броя	
Number of 10/100/1000BASE-TX ports	<input type="checkbox"/> 48 ports
Number of Combo 1000BaseT/SFP ports	<input type="checkbox"/> 4 ports
Switch Capacity	<input type="checkbox"/> 96 Gbps
64-Byte Packet Forwarding Rate	<input type="checkbox"/> 71.4 Mpps
MAC Address Table Size	<input type="checkbox"/> 16K
Jumbo Frame	<input type="checkbox"/> Up to 10,000 Bytes
Diagnostic LED Indicators	<ul style="list-style-type: none"> • Power (per device) • Link/Activity/Speed (per 10/100/1000 Mbps port) • Link/Activity/Speed (per combo port)
Power Consumption (Standby/Maximum)	<input type="checkbox"/> 13.9W / 34.2W
Power Input	<input type="checkbox"/> 110 to 240 VAC, 50/60HZ internal universal power supply
Dimensions (W x D x H)	<input type="checkbox"/> 440 x 210 x 44 mm
Size	<input type="checkbox"/> 19-inch standard rackmounting width or with rackmountable brackets

	<input type="checkbox"/> 1U Height
Ventilation	<input type="checkbox"/> fanless
Heat Dissipation	<input type="checkbox"/> 116.7 BTU per hour
Temperature	<ul style="list-style-type: none"> • Operating: -5° to 50°C (23° to 112°F) • Storage: -20° to 70°C (-4° to 158°F)
Certification	<input type="checkbox"/> CE Class A
Safety	<input type="checkbox"/> cUL, LVD
L2 Features	<ul style="list-style-type: none"> • MAC Address Table: 8K • Flow Control • 802.3x Flow Control • HOL Blocking Prevention • Jumbo Frame up to 10,000 Bytes • IGMP Snooping • IGMP v1/v2 Snooping • IGMP Snooping v3 Awareness • Supports 256 IGMP groups • Supports at least 64 static multicast addresses • IGMP per VLAN • Supports IGMP Snooping Querier • MLD Snooping • Supports MLD v1/v2 awareness • Supports 256 groups • Fast Leave • Spanning Tree Protocol • 802.1D STP • 802.1w RSTP • Loopback Detection • 802.3ad Link Aggregation • Max. 8 groups per device/8 ports per group • Port Mirroring • One-to-One, Many-to-One • Supports Mirroring for Tx/Rx/Both • Multicast Filtering • Forwards all unregistered groups • Filters all unregistered groups • LLDP, LLDP-MED
VLAN	<ul style="list-style-type: none"> • 802.1Q Tagged VLAN • VLAN Group • Max. 256 static VLAN groups • Max. 4094 VIDs • Management VLAN • Asymmetric VLAN • Auto Voice VLAN • Auto Surveillance VLAN

Quality of Service (QoS)	<ul style="list-style-type: none"> • 802.1p Quality of Service • Queue Handling • Strict • Weighted Round Robin (WRR) • 8 queues per port • Bandwidth Control • Port-based (Ingress/Egress, min. granularity for 10/100/1000Base-T ports is 16 Kb/s) • CoS based on • 802.1p Priority Queues • DSCP • ToS • TCP/UDP port number • IPv6 traffic class
L3 Features	<ul style="list-style-type: none"> • IP Interface • Supports 4 interface • IPv6 Neighbor Discovery (ND) • Static Routing • 124/50 IPv4/6 Static Route Entries
Access Control List (ACL)	<ul style="list-style-type: none"> • Single or multiple ports (each rule) • ACL based on • MAC Address • IPv4 Address (ICMP/IGMP/TCP/UDP) • IPv6 Address (ICMP/TCP/UDP)1 • 802.1p • DSCP • Ether type • IPv6 traffic class • ACL Actions • Permit • Deny • Max. 6 profiles • Max.768 entries • Single or multiple ports (each rule)
Security	<ul style="list-style-type: none"> • Port Security • Supports up to 64 MAC addresses per port • Broadcast/Multicast/Unicast Storm Control • Static MAC • D-Link Safeguard Engine • DHCP Server Screening • Trusted Host • ARP Spoofing Prevention • Max. 64 entries • SSL • Supports v1/v2/v3 • Supports IPv4/IPv6 • Traffic Segmentation • Smart Binding • Discover connected devices and click to bind • ARP Packet Inspection: 256 entries • IP/4/IPv6 Packet Inspection: 127/63 entries • Supports DHCP Snooping
AAA	802.1X Port-based Authentication <ul style="list-style-type: none"> • Supports RADIUS Server • Supports EAP, OTP, TLS, TTLS, PEAP

OAM	<ul style="list-style-type: none"> • Cable Diagnostics • Factory Reset
MIB	<ul style="list-style-type: none"> • 1213 MIB II • 1493 Bridge MIB • 1907 SNMP v2 MIB • 1215 Trap Convention MIB • 2233 Interface Group MIB • Power-Ethernet MIB • LLDP MIB
Management	<input type="checkbox"/> Multi-Language Web-based GUI <ul style="list-style-type: none"> • SmartConsole Utility • Telnet Server • TFTP Client • IPv6 Neighbor Discovery • Configurable MDI/MDIX • SNMP • Supports v1, v2, v3 • SNMP Trap • System Log • BootP/DHCP Client • D-Link Network Assistant support • SNTP • ICMPv6 • IPv4/v6 Dual Stack • DHCP Auto Configuration RMON v1
Power Saving Technology	<ul style="list-style-type: none"> • 802.3az Energy Efficient Ethernet (EEE) (disabled by default) <input type="checkbox"/> Power Saving by: <ul style="list-style-type: none"> • Link Status • Cable Length detection • LED or Port Shut-off • Port Standby mode • System Hibernation mode

9.7 50 портов 10/100/1000 коммутатор - 10 броя	
Management features	
Switch type	Managed network switch
Switch layer	L2
MIB support	IEEE 802.3 Ethernet
Quality of Service (QoS) support	Yes
Ports & interfaces	
Basic switching RJ-45 Ethernet ports quantity	48

Basic switching RJ-45 Ethernet ports type	Gigabit Ethernet (10/100/1000)
SFP+ module slots quantity	2
USB 2.0 ports quantity	1
Networking	
Networking standards	IEEE 802.3, IEEE 802.3ab, IEEE 802.3af, IEEE 802.3at, IEEE 802.3u
Full duplex	Yes
Auto MDI/MDI-X	Yes
DHCP server	Yes
VLAN support	Yes
Data transmission	
Switching capacity	136 Gbit/s
Throughput	101 Mpps
MAC address table	16000 entries
Latency (10-100 Mbps)	7.3 μ s
Latency (1 Gbps)	2.7 μ s
Latency (10 Gbps)	4 μ s
Number of VLANs	512
Jumbo frames support	Yes
Security	
Security algorithms	802.1x RADIUS, SSL/TLS
Access Control List (ACL)	Yes
SSH/SSL support	Yes
Protocols	
Management protocols	SNMPv3
Design	
Colour of product	Stainless steel
Certification	FCC; EN 55022/CISPR-22; VCCI
Performance	
Stackable	Yes
Virtual stacking (units)	16
Built-in processor	ARM9E
Processor frequency	800 MHz
Internal memory	256 MB

Memory type	DDR3
Flash memory	128 MB
Noise level	36.4 dB
Packet buffer memory	3 MB
Power	
AC input voltage	100-230 V
Power supply included	Yes
AC input frequency	50/60 Hz
Power consumption (typical)	439 W
Power over Ethernet (PoE)	
Power over Ethernet (PoE)	Yes
Power over Ethernet plus (PoE+) ports quantity	48
Total Power over Ethernet (PoE) budget	382 W
Operational conditions	
Operating temperature (T-T)	0 - 45 °C
Storage temperature (T-T)	-40 - 70 °C
Operating relative humidity (HH)	15 - 90 %
Heat dissipation	215 BTU/h
Weight & dimensions	
Width	443 mm
Depth	322.6 mm
Height	44.5 mm
Weight	4720 g

9.8 ACCESS POINT – нисък клас - 20 броя	
Interface	4 10/100/1000Mbps LAN ports 1 10/100/1000Mbps WAN port 1 USB 2.0 port
Button	WPS/Reset Button Wireless On/Off Switch Power On/Off Button
Antenna	2 × 2.4GHz Antennas 1 × 5GHz & 2.4GHz Dual Band Antenna

External Power Supply	12VDC /1.5A
Dimensions (W x D x H)	9.1 x 5.7 x 1.4 in. (230 x 144 x 35mm)
Antenna Type	Two dual band detachable antennas (RP-SMA)
Compatibility	NBN - Fibre to the Premises (FTTP) NBN - Fibre to the Home (FTTH) For further information on NBN connections please visit: http://www.nbnco.com.au/learn-about-the-nbn/network-technology.html
WIRELESS FEATURES	
Wireless Standards	IEEE 802.11ac/n/a 5GHz IEEE 802.11b/g/n 2.4GHz
Frequency	2.4GHz and 5GHz
Signal Rate	5GHz: Up to 433Mbps(Only with 11AC Wireless Adapter); Up to 150Mbps with 11N Wireless Adapter 2.4GHz: Up to 300Mbps
Reception Sensitivity	5GHz 11a 6Mbps: -91dBm, 11a 54Mbps: -74dBm 11ac HT20: -66dBm, 11ac HT40: -64dBm, 11ac HT80: -61dBm, 11n HT20: -71dBm, 11n HT40: -69dBm 2.4GHz 11g 54M: -74dBm 11n HT20: -72dBm, 11n HT40: -69dBm
Transmit Power	CE: <20dBm(2.4GHz) <23dBm(5GHz) FCC: <30dBm
Wireless Functions	Enable/Disable Wireless Radio, WDS Bridge, WMM, Wireless Statistics
Wireless Security	64/128-bit WEP,WPA / WPA2,WPA-PSK/ WPA2-PSK encryption
SOFTWARE FEATURES	
Quality of Service	WMM, Bandwidth Control
WAN Type	Dynamic IP/Static IP/PPPoE/ PPTP(Dual Access)/L2TP(Dual Access)/BigPond
Management	Access Control Local Management Remote Management
DHCP	Server, Client, DHCP Client List, Address Reservation
Port Forwarding	Virtual Server, Port Triggering, UPnP, DMZ
Dynamic DNS	DynDns, Comexe, NO-IP
VPN Pass-Through	PPTP, L2TP, IPSec
Access Control	Parental Control, Local Management Control, Host List, Access Schedule, Rule Management

Firewall Security	DoS, SPI Firewall IP Address Filtering/MAC Address Filtering/Domain Filtering IP and MAC Address Binding
Protocols	Supports IPv4 and IPv6
USB Sharing	Support Samba(Storage)/ FTP Server/Media Server/Printer Server
Guest Network	2.4GHz guest network × 1 5GHz guest network × 1
OTHERS	
Certification	CE, FCC, RoHS
Package Contents	AC750 Wireless Dual Band Gigabit Router Archer C2 2 Detachable Antennas Power Supply Unit Resource CD Ethernet Cable Quick Installation Guide
System Requirements	Windows 10/8.1/8/7/Vista/XP, Mac OS or Linux-based operating system
Environment	Operating Temperature: 0°C~40 °C (32 °F~104°F) Storage Temperature: -40°C~70 °C (-40 °F~158°F) Operating Humidity: 10%~90% non-condensing Storage Humidity: 5%~90% non-condensing

9.9 ACCESS POINT – висок клас - 15 броя	
Dimensions	196.7 x 196.7 x 35 mm (7.74 x 7.74 x 1.38")
Weight With Mounting Kits	350 g (12.4 oz) 450 g (15.9 oz)
Networking Interface	(2) 10/100/1000 Ethernet Ports
Buttons	Reset
Power Method	Passive Power over Ethernet (48V), 802.3af/802.3at Supported (Supported Voltage Range: 44 to 57VDC)
Power Supply	48V, 0.5A PoE+ Gigabit Adapter*
Power Save	Supported
Maximum Power Consumption	9W
Maximum TX Power	
2.4 GHz	22 dBm
5 GHz	22 dBm
Antennas	(3) Dual-Band Antennas, 2.4 GHz: 3 dBi, 5 GHz: 3 dBi
Wi-Fi Standards	802.11 a/b/g/n/ac
Wireless Security	WEP, WPA-PSK, WPA-Enterprise (WPA/WPA2, TKIP/AES)
BSSID	Up to Four per Radio
Mounting	Wall/Ceiling (Kits Included)

Operating Temperature	-10 to 70° C (14 to 158° F)
Operating Humidity	5 to 95% Noncondensing
Certifications	CE, FCC, IC
Advanced Traffic Management	
VLAN	802.1Q
Advanced QoS	Per-User Rate Limiting
Guest Traffic Isolation	Supported
WMM	Supported
Concurrent Clients	250+
Supported Data Rates (Mbps)	
Standard	Data Rates
802.11ac	6.5 Mbps to 1300 Mbps (MCS0 - MCS9 NSS1/2/3, VHT 20/40/80)
802.11n	6.5 Mbps to 450 Mbps (MCS0 - MCS23, HT 20/40)
802.11a	6, 9, 12, 18, 24, 36, 48, 54 Mbps
802.11g	6, 9, 12, 18, 24, 36, 48, 54 Mbps
802.11b	1, 2, 5.5, 11 Mbps

9.10 Непрекъсваем токозахранващ източник (UPS) - 18 броя

Енергийна консумация и управление

Тип: Smart-UPS Line Interactive

Изходна мощност (VA)	750 VA
Изходна мощност	500 W
Input operation voltage (min)	151 V
Input operation voltage (max)	302 V
Output operation voltage (min)	220 V
Output operation voltage (max)	240 V
Входна честота на захранващия източник	50/60 Hz
Рейтинг на пренапрежение	540 J
Ефективност	98 %
Аварийно изключване	HE

Интерфейс

Брой контакти	6
AC outlet types	C13 coupler
Дължина на кабела	1.83 m
Брой USB 2.0 порта	1

Брой серийни порта	1
Брой изходни IEC джъмperi	2
Брой Ethernet LAN (RJ-45) порта	1
Battery	
Технология на батерията	Sealed Lead Acid (VRLA)
Време за зареждане на батерия	3 h
Нормално време за бекъп при 50% натоварване	15.8 min
Нормално време за бекъп при 100% натоварване	4.6 min
Картридж с резервни батерии	RBC48
Батерия позволяваща гореща смяна	Да
Cold start	Да
Automatic battery test	Да
Battery capacity	146 VAh
Design	
Форм фактор	Tower
Цвят на продукта	Black
Дисплей	LCD
Surge protection	Да
Ниво на шума	40 dB
Светодиодни индикации	Status
Звукови аларми	Да
Брой в палет	24 броя
Изходни конектори	6 x IEC 320 C13
Тип на входните конектори	IEC-320 C14
Размери (ШхДхВ)	161 x 138 x 363 mm
Съвместимост с Мас	Да
Номинално изходно напрежение	230 V
Изходно напрежение (note)	220/230/240
Номинално входно напрежение	230 V
Размери на опаковката (ШхДхВ)	301 x 278 x 499 mm
Друга техническа информация	
Входни конектори	IEC-320 C14
Устойчивост на външната среда	
Работна температура	0 - 40 °C

Температура за съхранение	-15 - 45 °C
Диапазон на влажността при експлоатация	5 - 95 %
Относителна влажност при съхранение	0 - 95 %
Нормална височина за работа	0 - 3000 m
Нормална височина при съхранение	0 - 15000 m
Сертификати	
Сертификати	CE, CSA, EAC, EN/IEC 62040-1, EN/IEC 62040-2, RCM, UL 1778, VDE, REACH, PEP, EOLi
RoHS compliance	Да
Тегло и размери	
Ширина	138 mm
Дълбочина	358 mm
Височина	157 mm
Тегло	13180 g
Ширина на опаковката	278 mm
Дълбочина на опаковката	499 mm
Височина на опаковката	301 mm
Тегло на опаковката	14230 g
Съдържание на опаковката	
Бързо ръководство за инсталиране	Да
Включени кабели в комплекта	RS-232, USB cable

9.11 Непрекъсваем токозахранващ източник (UPS) – 2U - 10 броя

Енергийна консумация и управление	
Тип Smart-UPS On-Line	
Изходна мощност (VA)	2200 VA
Изходна мощност	1980 W
Input operation voltage (min)	100 V
Input operation voltage (max)	275 V
Output operation voltage (min)	220 V
Output operation voltage (max)	240 V
Входна честота на захранващия източник	40/70 Hz
Рейтинг на пренапрежение	340 J
Ефективност	92.2 %
Аварийно изключване	Да
Crest factor	3:1

Интерфейс	
Брой контакти	10
AC outlet types	C13 coupler,C19 coupler
Дължина на кабела	2.44 m
Брой USB 2.0 порта	1
Тип на серийния интерфейс	RJ-45
Брой серийни порта	1
Брой изходни IEC джъмperi	2
Battery	
Технология на батерията	Sealed Lead Acid (VRLA)
Брой поддържани батерии	1
Време за зареждане на батерия	≤ 3 h
Нормално време за бекъп при 50% натоварване	11.6 min
Нормално време за бекъп при 100% натоварване	3.9 min
Картридж с резервни батерии	APCRBC141
Батерия позволяваща гореща смяна	Да
Cold start	Да
Automatic battery test	Да
Battery capacity	367 VAh
Design	
Форм фактор	Rackmount
Цвят на продукта	Black
Дисплей	LCD
International Protection (IP) code	IP20
Surge protection	Да
Ниво на шума	55 dB
Светодиодни индикации	Да
Звукови аларми	Да
Тип на входните конектори	IEC-320 C20, Schuko CEE 7 / EU1-16P, BS1363A
Номинално изходно напрежение	230 V
Номинално входно напрежение	230 V
Характеристики за управление	
Web управление	Да
Поддържани мрежови протоколи	HTTPS, HTTP, Telnet, SMTP, TCP/IP

Друга техническа информация	
Входни конектори	IEC-320 C20, Schuko CEE 7 / EU1-16P, BS1363A
Output frequency	50/60 Hz
Изходно напрежение	230 V
Гаранция	3 години на UPS-са и 2 години на батериите
Други	Батерия позволяваща гореща смяна, Cold start, Automatic battery test, Battery capacity-367Vah, LCD, Surge protection, Smart-Slot, UPS Network Management Card 2, Кит за монтаж в сървърен шкаф.
Устойчивост на външната среда	
Работна температура	0 - 40 °C
Температура за съхранение	-20 - 50 °C
Диапазон на влажността при експлоатация	0 - 95 %
Относителна влажност при съхранение	0 - 95 %
Нормална височина за работа	0 - 3000 m
Нормална височина при съхранение	0 - 15000 m
Сертификати	
Сертификати	CE, CE Mark, EAC, EN/IEC 62040-1, EN/IEC 62040-2, RCM, VDE, REACH
RoHS compliance	Да
Energy Star сертификат	Да
Тегло и размери	
Ширина	432 mm
Дълбочина	584 mm
Височина	85 mm
Тегло	25000 g
Ширина на опаковката	599 mm
Дълбочина на опаковката	810 mm
Височина на опаковката	246 mm
Тегло на опаковката	34020 g
Съдържание на опаковката	
Бързо ръководство за инсталиране	Да
Включени кабели в комплекта	USB cable

9.12 Непрекъсваем токозахранващ източник (UPS) – 2U- 6 броя

Енергийна консумация и управление

Тип Smart-UPS On-Line	
Изходна мощност (VA)	3000 VA
Изходна мощност	2700 W
Input operation voltage (min)	100 V
Input operation voltage (max)	275 V
Output operation voltage (min)	220 V
Output operation voltage (max)	240 V
Входна честота на захранващия източник	40 - 70 Hz
Рейтинг на пренапрежение	340 J
Ефективност	92 %
Аварийно изключване	Да
Output voltage THD	2 %
Crest factor	3:1
Интерфейс	
AC outlet types	C13 coupler,C19 coupler
Дължина на кабела	2.44 m
Тип на серийния интерфейс	RJ-45
Battery	
Технология на батерията	Sealed Lead Acid (VRLA)
Време за зареждане на батерия	3 h
Нормално време за бекъп при 50% натоварване	11.8 min
Нормално време за бекъп при 100% натоварване	4 min
Картридж с резервни батерии	APCRBC152
Батерия позволяваща гореща смяна	Да
Cold start	Да
Automatic battery test	Да
Battery replacement alarms	Audible,LED
Battery capacity	505 VAh
Гаранция	3 години на UPS-са и 2 години на батериите
Други	Батерия позволяваща гореща смяна, Cold start, Automatic battery test, LCD, Surge protection, Smart-Slot, UPS Network Management Card 2, Кит за монтаж в сървърен шкаф.
Design	
Форм фактор	Rackmount
Цвят на продукта	Black

Дисплей	LCD
International Protection (IP) code	IP20
Характеристики за управление	
Web управление	Да
Поддържани мрежови протоколи	HTTPS, HTTP, Telnet, SMTP, TCP/IP
Surge protection	Да
Power protection features	Overload
Ниво на шума	55 dB
Звукови аларми	Да
Брой в палет	6 броя
Друга техническа информация	
Входни конектори	IEC-60320 C20, Schuko CEE 7/EU1-16P, BS1363A
Output frequency	50/60 Hz
Изходно напрежение	230 V
Устойчивост на външната среда	
Работна температура	0 - 40 °C
Температура за съхранение	-15 - 45 °C
Диапазон на влажността при експлоатация	0 - 95 %
Относителна влажност при съхранение	0 - 95 %
Нормална височина за работа	0 - 3000 m
Нормална височина при съхранение	0 - 15000 m
Сертификати	
Сертификати	CE, VDE, RCM, EAC, IEC/EN 62040-1, IEC/EN 62040-2, UL-1778, FCC 15 A, CSA
RoHS compliance	Да
Тегло и размери	
Ширина	432 mm
Дълбочина	635 mm
Височина	85 mm
Тегло	31300 g
Ширина на опаковката	599 mm
Дълбочина на опаковката	871 mm
Височина на опаковката	246 mm
Тегло на опаковката	39290 g

Съдържание на опаковката	
Бързо ръководство за инсталиране	Да

9.13 Непрекъсваем токозахранващ източник (UPS) – 2U - 5 броя	
Тип Smart-UPS On-Line	
Енергийна консумация и управление	
Изходна мощност (VA)	5000 VA
Изходна мощност	4500 W
Input operation voltage (min)	100 V
Input operation voltage (max)	275 V
Output operation voltage (min)	220 V
Output operation voltage (max)	240 V
Входна честота на захранващия източник	40 - 70 Hz
Рейтинг на пренапрежение	480 J
Ефективност	94.1 %
Аварийно изключване	Да
Crest factor	3:1
Интерфейс	
Брой контакти	12
AC outlet types	C13 coupler,C19 coupler
Тип на серийния интерфейс	RJ-45
Брой изходни IEC джъмperi	2
Battery	
Технология на батерията	Sealed Lead Acid (VRLA)
Време за зареждане на батерия	1.5 h
Нормално време за бекъп при 50% натоварване	11.8 min
Нормално време за бекъп при 100% натоварване	4 min
Картридж с резервни батерии	APCRBC140
Батерия позволяваща гореща смяна	Да
Cold start	Да
Automatic battery test	Да
Battery capacity	845 VAh
Гаранция	3 години на UPS-са и 2 години на батериите
Design	

Цвят на продукта	Black
Дисплей	LCD
International Protection (IP) code	IP20
Surge protection	Да
Ниво на шума	55 dB
Светодиодни индикации	Status
Звукови аларми	Да
Характеристики за управление	
Web управление	Да
Поддържани мрежови протоколи	HTTPS, HTTP, Telnet, SMTP, TCP/IP
Комуникационни портове	RJ45 –Ethernet (Web/SNMP Management Card)
Други	Cold start, Automatic battery test, Multi-function LCD status and control console, Surge protection, Smart-Slot, UPS Network Management Card 2, Кит за монтаж в сървърен шкаф.
Друга техническа информация	
Входни конектори	Hard Wire 3 wire (1PH+N+G)
Устойчивост на външната среда	
Работна температура	0 - 40 °C
Температура за съхранение	-15 - 45 °C
Диапазон на влажността при експлоатация	0 - 95 %
Относителна влажност при съхранение	0 - 95 %
Нормална височина за работа	0 - 3000 m
Нормална височина при съхранение	0 - 15000 m
Сертификати	
Сертификати	REACH, CE, CE Mark, EAC, EN/IEC 62040-1, EN/IEC 62040-2, IRAM, RCM, VDE
RoHS compliance	Да
Energy Star сертификат	Да
Тегло и размери	
Ширина	130 mm
Дълбочина	719 mm
Височина	432 mm
Тегло	54430 g
Ширина на опаковката	610 mm
Дълбочина на опаковката	960 mm
Височина на опаковката	330 mm

Тегло на опаковката	63600 g
Съдържание на опаковката	
Бързо ръководство за инсталиране	Да
Включени кабели в комплекта	USB cable
Гаранционна карта	Да