



Коммутаторы серии CS4100

Техническое описание



Коммутаторы серии CS4100



Высокопроизводительные коммутаторы универсального назначения фиксированной аппаратной конфигурации и высокой плотностью портов со скоростями передачи данных 10, 25 и 100 гигабит в секунду, могут выступать как устройства агрегации в корпоративных сетях, устройства типа Leaf и/или Spine в сетях традиционных и полностью виртуализированных центров обработки данных, так и устройства L2/L3 агрегации в сетях операторов связи. Такая гибкость и универсальность обеспечивается высокой скоростью коммутации пакетов данных и широким набором функций доступных в сетевой операционной системе **BCOM** таких как: STP/RSTP/MSTP, G.8032, dot1q, QinQ, MLAG, VRRP, RIP, OSPF, BGP, IGMP, PIM-DM/SM/SSM, EVPN/VXLAN, MPLS L2VPN, MPLS L3VPN, ACL, QOS, SNMP, NETCONF и т.п.

Спецификация устройств серии CS4100:

Устройство	CS4148D-6Q	CS4148Q-8U	CS4132U	CS4164U
Интерфейсы	6x100GE QSFP28 ¹ + 48x1/10GE SFP+	8x100GE QSFP28 ² + 48x10/25GE SFP28 + 2x10G SFP+	32x100GE QSFP28 + 2x10G SFP+	64x100GE QSFP28 + 2x10G SFP+
Интерфейсы управления	1 x консольный RJ-45 1 x GE RJ45, 1 USB Type A	1 x консольный RJ-45/ mini USB, 1 x GE RJ45 1 USB Type A	1 x консольный RJ-45 1 x GE RJ45 1 USB Type A	1 x консольный RJ-45 1 x GE RJ45, 1 USB Type A
Пакетный буфер (мегабайт)	32			42
Пропускная способность Full Duplex (гигабит в секунду)	1080	2000	3200	6400
Скорость передачи пакета (миллион пакетов в секунду)	1000	2000	2000	4200
Размеры (Ш x Г x В, мм)	442,5 x 473,3 x 44 1 RU	438,5x536x43,5 1 RU	438,5x515x43,5 1 RU	438,4 x 580 x 87,7 2 RU

¹ Каждый из портов QSFP28 (100GE) коммутатора CS4148D-6U может быть использован в режиме 4 x 25 GE с применением соответствующего разветвительного кабеля. Но не более 2-х портов QSFP28 (100GE) могут работать в этом режиме одновременно.

² Каждый из портов QSFP28 (100GE) коммутаторов CS4148Q-8U, CS4132U и CS4164U может быть использован в режимах 1 x 100 GE, 1 x 40GE, а также, при использовании соответствующего разветвительного кабеля, в режимах 2 x 50 GE, 4 x 25 GE и 4 x 10 GE.



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Блоки питания	2 x 220В, AC (допускают горячую замену)			
Блоки охлаждения (допускают горячую замену)	4+1	5+1		3 + 1
Максимальная потребляемая мощность	356 Вт	400 Вт		850 Вт
Рабочая температура	0 - 40°C	0 - 40°C	0 - 45°C	0 - 45°C
Масса устройства (кг)	9	10	11	14

Возможности программного обеспечения BCOM OS

Программное обеспечение	BCOM-BASE
Layer 1	
xConnect	+
xConnect Resiliency	+
Layer 2	
Virtual Local Area Network (VLAN)	
Virtual LANs with Port-based VLANs (IEEE 802.10(2005))	+
Routed VLAN interface (IEEE 802.10(2005))	+
Port based VLAN interface (IEEE 802.10(2005))	+
Private VLAN (IEEE 802.10(2005)) (только для модели CS4164U)	+
Layer 2 Tunneling Protocol (L2PT)/ Layer 2 Control Protocols (L2CP) (RFC 2661/1 IEEE 802.1Q (2014))	+
Spanning Tree Protocol (STP)	
STP (IEEE 802.1D (2004))	+
STP Multiple Spanning Tree Protocol (MSTP) (IEEE 802.1Q(2005): Clause 13)	+
Rapid Spanning Tree (RSTP) (IEEE 802.1D (2004): Clause 17)	+
Rapid Per VLAN Spanning Tree (RPVST+)	+
Link Layer Discovery Protocol (LLDP)	
LLDP v2 (IEEE 802.1ab 2009)	+
Link Aggregation	
Link Aggregation Control Protocol (LACP) (IEEE802.3ad-2002)	+
Static link aggregation group (IEEE802.3ad-2002)	+
Multi-Chassis Link Aggregation (Layer2 only)	
Multi-Chassis Link Aggregation (MLAG)	+
RSTP Support on MLAG	+
MLAG Layer 3 Gateway using VRRP	+
Provider RSTP Support on MLAG	+
MLAG Active/Standby support as attachment circuit for Layer 2	-



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Provider Bridging (PB)	
Customer VLAN (CVLAN)/ Service tag VLAN (SVLAN) translation (Also supports Untag-Provider Edge Port (PEP)/ Untag-Customer Edge Port (CEP) option) (IEEE 802.1ad)	+
SVLAN translation (Also supports CVLAN modification option) (IEEE 802.1ad)	+
Changing the outer TPID (Tag Protocol Identifier) of provider network port (IEEE 802.1ad)	+
Remarking COS, Canonical Format Indicator (CFI) for C-Tag and S-Tag at CEP and PNP (Provider Network Port) (IEEE 802.1ad)	+
Q-in-Q Layer 3 Termination (IEEE 802.1ad)	+
Other Layer 2 Features	
Bridge Protocol Data Unit (BPDU) Protect (802.1d)	+
Root Guard (802.1d)	+
Media Access Control (MAC) Learning disable (802.1q)	+
Static MAC Address Assignment (802.1q)	+
Port based authentication with Radius server (IEEE 802.1x)	+
TFO (Trigger FailOver)	+
Port Security	+
VLAN Cross Connect	+
VLAN Cross Connect with double TAG	+
LACP Force-up	+
Protected Port	+
Unidirectional Link Detection (UDLD)	+
Layer 3	
Address Resolution Protocol (ARP)	
Ethernet ARP (RFC 826)	+
Path MTU	
Path Maximum Transmission Unit (MTU) for IPv4 and IPv6 (RFC 1191)	+
Routing	
Transmission of Internet Protocol (IP) Datagrams over Ethernet (RFC 894)	+
Congestion Control in IP/Transmission Control Protocol (TCP) Networks (RFC 896)	+
IP Broadcast (RFC 919)	+
IP Broadcast in the Presence of Subnets (RFC 922)	+
IP Subnetting (RFC 950)	+
Classless Inter-Domain Routing (CIDR) (RFC 1519)	+
Requirements for IP Version 4 Routers (RFC 1812)	+
Route Redistribution across RIP, OSPF and BGP (RFC 2328, RFC 4271, RFC 2453)	+
VLAN Routing	+
Route-Map Continue	+
Static Route Discard	+
Inter Virtual Routing and Forwarding (VRF) Route Leaking	+
Static route tracking using object tracking (IP SLA)	+
URPF (Unicast Reverse Path Forwarding)	
Loose mode (RFC 3704)	+
Loose default mode (RFC 3704)	+
Strict mode (RFC 3704)	+
Border Gateway Protocol (BGP)	
Border Gateway Protocol, Version 4 (RFC 4271)	+



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BGP Community Attributes (RFC 1997)	+
BGP Route Flap Dampening (RFC 2439)	+
BGP Route Reflection (RFC 4456)	+
Autonomous System (AS) Confederations for BGP (RFC 5065)	+
Capabilities Negotiation with BGP-4 (RFC 5492)	+
Applications of BGP-4 in the Internet (RFC 1772)	+
Protection of BGP Sessions Via the TCP Message-digest (MD5) Signature Option (RFC 2385)	+
Route Refresh Capability for BGP-4 (RFC 2918)	+
BGP Support for Four-Octet AS Number Space (RFC 4893)	+
Subcodes for BGP Cease Notifications (RFC 4486)	+
Graceful BGP Session Shutdown (draft-ietf-grow-bgp-gshut-06)	+
BGPv4 MD5 Authentication (RFC 2385)	+
BGP soft configuration	+
BFD Trigger for BGP (RFC 5882)	+
Next Hop Tracking	+
BGP - Outbound Route Filter (RFC 5292)	+
BGP MIB (RFC 4273)	+
Inter-VRF route leaking for user-defined VRFs (RFC 4364)	+
BGP Dynamic Peering	+
BGP Unnumbered - using extended next hop encoding (ENHE) (RFC 5549)	+
BGP GR for L3VPN Address Family (RFC 4724)	-
Routing Information Protocol (RIP)	
RIP Version 1 (RFC 1058)	+
RIP and RIP Version 2 (RFC 2453)	+
Increment Metrics When Sending Routes, Not When Receiving (RFC 2453)	+
RIP-2 MD5 Authentication (RFC 2082)	+
Open Shortest Path First (OSPF)	
Open Shortest Path First Version 2 (RFC 2328)	+
Applicability statement for OSPF (RFC 1370)	+
OSPF Opaque Link State Advertisements (LSA) (RFC 5250)	+
OSPF Graceful Restart (RFC 3623)	+
OSPF as PE/CE protocol for BGP/MPLS IP VPN (RFC 4577)	+
Passive Interface Support for OSPFv2	+
OSPF Multiarea adjacency (RFC 5185)	+
OSPF Not-So-Stubby-Area (NSSA) Option (RFC 3101)	+
IP FRR (Fast Reroute): OSPF-LFA (Loop-Free Alternate) (RFC 5286)	+
Bidirectional Forwarding Detection (BFD) Trigger for OSPFv2 (RFC 5882)	+
Link Local Signaling (RFC 2328)	+
Virtual link (RFC 2328)	+
OSPF Version 3 for IPv6 Support (RFC 5340)	+
Passive Interface Support in OSPFv3	+
Graceful Restart Mechanism for OSPFv3 (RFC 5187)	+
BFD Trigger for OSPFv3 (RFC 5613)	+
Intermediate System-Intermediate System (ISIS)	
Use of OSI IS-IS for routing in TCP/IP and dual environments (RFC 1195)	+
Management Information Base (MIB) for ISIS (RFC 4444)	+



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IS-IS Exponential Back-off of SPF (Shortest Path First) (RFC 8541)	+
IP Fast Reroute - Loop-Free Alternate for IS-IS (RFC 5286)	+
Bidirectional Forwarding Detection (BFD)	
BFD (RFC 5880)	+
BFD for IPv4 single hop (RFC 5881)	+
Generic Application for BFD (RFC 5882)	+
BFD Multi-hop (RFC 5883)	+
BFD Over BGP / ISIS / OSPF / Static route (RFC 5882)	+
BFD Over Non-default VRF for static (IPv4 and IPv6) and OSPF v2 and v3 (RFC 5880, RFC 5882)	+
BFD Authentication for MultiHop BFD (RFC 5880)	+
Virtual Router Redundancy Protocol (VRRP)	
VRRP Version 3 for IPv4 (RFC 5798)	+
VRRP Interface Tracking	+
Support for VRRP Active/Standby and Active/Active on MLAG Active/Standby domain	+
VRRP Object Tracking	+
Multi-Protocol Label Switching (MPLS)	
MPLS Architecture (RFC 3031)	-
MPLS Label Stack Encoding (RFC 3032)	-
Time To Live (TTL) Processing in Multi-Protocol Label Switching (MPLS) Networks (RFC 3443)	-
MPLS Diffserv (RFC 3270)	-
Multiprotocol Label Switching (MPLS) Label Switching Router (LSR) Management Information Base (MIB) (RFC 3813)	-
Multiprotocol Label Switching (MPLS) Forwarding Equivalence Class to Next Hop Label Forwarding Entry (FEC-To-NHLFE) Management Information Base (MIB) (RFC 3814)	-
Label Distribution Protocol (LDP)	
LDP (RFC 5036)	-
LDP Applicability (RFC 3037)	-
Support for LDP TCP-MD5 (RFC 5036)	-
Definitions of Managed Objects for the MPLS and LDP (RFC 3815)	-
LDP Downstream-on-Demand (DoD) in Seamless MPLS (RFC 7032)	-
LDP Extension for Inter-Area Label Switched Paths (LSPs) (RFC 5283)	-
LDP Graceful Restart (RFC 3478)	-
LDP Session Protection (RFC 8223)	-
Resource Reservation Protocol (RSVP)	
RSVPv1 (RFC 2205)	-
RSVP Refresh Overhead Reduction Extensions (RFC 2961)	-
Fast Reroute Extensions to RSVP-TE for LSP Tunnels One-to-One Backup (RFC 4090)	-
RSVPv1 message processing rules (RFC 2209)	-
RSVP re-optimization	-
Multiprotocol Label Switching (MPLS) Traffic Engineering (TE) Management Information Base (MIB) (RFC 3812)	-
RSVP multiple secondary	-
RSVP Shared Risk Link-Group (SRLG) support (RFC 4203 (Section 1.3))	-
RSVP MIB (RFC 2206)	-
RSVP Graceful Restart (RFC 3473)	-
Layer 2 VPN (VPWS and VPLS)	
Pseudowire Setup and Maintenance using the Label Distribution Protocol (RFC 4447)	-



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Virtual Private Wire Service (VPWS) ethernet encapsulation mapping(Service Mapping) 1> Outer tag Match 2> Outer and inner tag Match 3> Outer tag range Match 4> Untag	-
VPLS ethernet encapsulation mapping(Service Mapping) 1> Outer tag Match 2> Outer and inner tag Match 3> Outer tag range Match 4> Untag	-
VPWS ethernet action (Service Mapping, Action) 1> POP outer tag 2> XLATE outer tag 3> Push tag	-
VPLS ethernet action (Service Mapping, Action) 1> POP outer tag 2> XLATE outer tag 3> Push tag	-
Multiple match criteria for VPWS Ethernet Encapsulation using Service Template	-
Multiple match criteria for VPLS Ethernet Encapsulation using Service Template	-
Encapsulation Methods for Transport of Ethernet Over MPLS Networks (RFC 4448)	-
Static VPLS	-
Virtual Private LAN Service (VPLS) Using Label Distribution Protocol (LDP) Signaling (RFC 4762)	-
Virtual Private LAN Service (VPLS) Using BGP for signaling and auto-discovery (RFC 4761)	-
Static pseudowire Setup and Maintenance	-
Pseudowire MIB support (RFC 5601)	-
Pseudowire (PW) over MPLS PSN (Packet Switched Network) Management Information Base (MIB) (RFC 5602)	-
Ethernet Pseudowire (PW) Management Information Base (MIB) (RFC 5603)	-
Layer 3 VPN	
Extranet VPNs with BGP/MPLS IP Virtual Private Networks (VPNs) (RFC 4364)	-
OSPF as the Provider Edge/Customer Edge Protocol for BGP/MPLS IP Virtual Private Networks (VPNs) (RFC 4577)	-
Intranet VPNs with BGP/MPLS IP Virtual Private Networks (VPNs) (RFC 4364)	-
Static route as the Provider Edge/Customer Edge Protocol for BGP/MPLS IP Virtual Private Networks (VPNs) (RFC 4364)	-
BGP-MPLS IP Virtual Private Network (VPN) Extension for IPv6 VPN (6vPE) (RFC 4659)	-
Connecting IPv6 Islands over IPv4 MPLS using IPv6 Provider Edge Routers (6PE) (RFC 4798)	-
Label Disposition for VPNv4 and 6VPE (RFC 4364, RFC 4659)	-
Label Disposition for 6PE (RFC 4798)	-
Inter AS option A support for L3PVN/6VPE/6PE (RFC 4364, RFC 4659, RFC 4798)	-
Inter AS option B support for L3PVN/6VPE/6PE (RFC 4364, RFC 4659, RFC 4798)	-
PER VRF Label support for 6PE	-
BGP Peer Group - static	-
Internet access for L3VPN (RFC 4365 section 10.1)	-
L3VPN MIB (RFC 4382)	-
MPLS OAM	
OAM for MPLS networks (RFC 4377)	-
A framework for MPLS OAM (RFC 4378)	-
Detecting MPLS Data Plane Failures (RFC 4379)	-
MPLS PW and LSP Traffic Statistics	
Stats per Label Switched Path (LSP)	-
Stats per Virtual Circuit (VC)	-
L2VPN Statistics MIB	-
Carrier Ethernet	
Connectivity Fault Management (CFM)	
Maintenance Domain (MD), Maintenance Association (MA), Maintenance domain Intermediate Point (MIP), Down Maintenance association End Point (MEP) (IEEE 802.1ag - 2007)	+
Continuity check (multicast CCM) (IEEE 802.1ag - 2007)	+
Ping (unicast) (IEEE 802.1ag - 2007)	+
Link trace (IEEE 802.1ag - 2007)	+
Fault reporting (RDI, MAC Status defect, CCM Cross Connect Defect, Error CCM Defect) (IEEE 802.1ag - 2007)	+
CFM over Layer 2 Bridge with xSTP (IEEE 802.1ag - 2007)	+
CFM over xConnect (IEEE 802.1ag - 2007)	+



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Ethernet Ring Protection (ERPS)	
ERPS over CFM on Provider/Customer domain (ITU-T G.8032v2)	+
Sub-ring support (Multiple ring and ladder topologies) (ITU-T G.8032v2)	+
Support of multiple ERP Instances on single ring (ITU-T G.8032v2)	+
Ethernet in the First Mile (EFM)	
Ether OAM (EFM) (IEEE 802.3ah)	+
Multicast	
Protocol Independent Multicast (PIM)	
PIM - Sparse Mode (PIM-SM) (RFC 4601)	+
Bootstrap Router (BSR) Mechanism for PIM (RFC 5059)	+
Static Rendezvous Point Configuration (RFC4601, RFC 5015)	+
PIM - Dense Mode (PIM-DM): Protocol Specification (Revised) (RFC 3973)	+
PIM - Source Specific Multicast (RFC 4607)	+
Support for More than 32 PIM Interfaces	+
Source-Specific Multicast for IP (RFC 4607)	+
Source-Specific Protocol-Independent Multicast in 232/8 (RFC 4608)	+
Overview of Source-Specific Multicast (SSM) (RFC 3569)	+
Bidirectional Forwarding Detection (BFD) Trigger for PIM (RFC 5882)	+
Internet Group Management Protocol (IGMP)	
IGMP, Version 2 (RFC 2236)	+
IGMP, Version 3 (RFC 3376)	+
IGMP report suppression for v1, v2 and v3 (RFC 4541)	+
Considerations for IGMP Snooping Switches (RFC 4541)	+
IGMP-based Multicast Forwarding ("IGMP Proxying") (RFC 4605)	+
Quality of Service (QoS)	
DiffServ Field in IPv4/IPv6 Headers (RFC 2474)	+
Assign matching traffic flow to a specific queue (RFC 2475)	+
Layer 2 and Layer 3 QoS (IEEE 802.1p, RFC 2474)	+
Shaping per queue, per port (RFC 3644)	+
Multiple hardware queues per port (IEEE 802.1p, RFC 2474)	+
Weighted Round Robin (WRR)/ Weighted Fair Queueing (WFQ)/ Strict Priority (SP) Scheduling Per Queue (RFC 4594)	+
Weighted Random Early Detection (WRED) (RFC 2309)	+
802.1p remarking (RFC 2475)	+
Classification based on interface, ACL, DSCP, IP precedence, RTP, 802.1p, and VLAN (RFC 2475)	+
Trust IEEE 802.1p/DSCP (RFC 2475)	+
Remarking of bridged packets	+
Police Rate (SRTCM/TRTCM) (RFC 2697, RFC 4115)	+
Minimum and Maximum Bandwidth Per Queue (RFC 3644)	+
Explicit Congestion Notification (RFC 3168)	+
QoS Class map statistics	+
Egress Q statistics	+
IP SLA (ICMP Echo)	+
ToS Based queue distribution over Layer 2 Interface	+
Management	
Role based CLI management and access	+



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CLI access via console, telnet (IPv4 and IPv6) and SSH (IPv4 and IPv6) (RFC-4251, RFC-4252, RFC-4253, RFC-4254)	+
Authentication using TACACS+/radius client (IPv4 and IPv6) (Radius - RFC 2866, Tacacs- RFC 1492)	+
Extended ping and traceroute	+
SNMP v1, v2, and v3 (IPv4 and IPv6) (RFC-1157)	+
SNMP: support for multiple instances of SNMP MIB- v2, and v3	+
sFlow (RFC-3176)	+
Error Disable	+
Debounce Timer	+
DHCP client (IPv4 and Ipv6) (RFC-8415, RFC-2131)	+
DHCP relay (IPv4 and IPv6) (RFC-3046)	+
NTP Server (IPv4 and IPv6) (RFC 5905)	-
Syslog (IPv4 and IPv6) (RFC-3164)	+
File Upload/Download using File Transfer Protocol (FTP)/ Trivial File Transfer Protocol (TFTP)/ SSH/Secure File Transfer Protocol (SFTP)/ Secure Copy Protocol (SCP)	+
Management VRF	+
Routing Protocols in Management VRF (RIP, RIPng, OSPF, and ISIS)	+
Ansible	+
Upgrade Mechanism from ONIE prompt using onie nos install and from BCOM shell using sys-update	+
ACL support over Management, VTY and Loopback	+
Licensing (IPv4 and IPv6)	+
TWAMP - Link level Delay and Loss Measurement (rfc5357#appendix-I)	-
Zero Touch Provisioning (ZTP)(with IPv4)	+
Zero Touch Provisioning (ZTP) (with IPv6)	+
DHCP Snooping over MLAG (RFC 7513)	+
DNS Relay (IPv4 and IPv6) (RFC 1034, 1035)	-
Storing Multiple images on Platform	+
DHCP Relay over L3VPN	-
Fault Management System	+
DHCP Relay across VRFs	-
Network Configuration Protocol (NETCONF)	
YANG 1.0 Data Modelling Language (RFC 6020)	+
NETCONF Protocol (RFC 6241)	+
NETCONF Protocol over Secure Shell (SSH) (RFC 6242)	+
NETCONF Protocol over Transport Layer Security (TLS) (RFC 5246)	+
NETCONF Event Notifications (RFC 5277)	+
YANG Module for NETCONF Monitoring (RFC 6022)	+
NETCONF Base Notifications (RFC 6470)	+
YANG 1.1 Data Modeling Language (RFC 7950)	+
NETCONF Access Control Model (RFC 8341)	+
Multiple simultaneous config session for CLI	+
Transaction based CLI	+
Security	
Storm control	+
Flow control (IEEE 802.3x)	+
DHCP Snooping (RFC 7513)	+
Access Control Lists (ACLs)	



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Source IP address (RFC 2827)	+
Destination IP address (RFC 2827)	+
TCP/UDP source port (RFC 2827)	+
TCP/UDP destination port (RFC 2827)	+
IP protocol type (RFC 2827)	+
Source MAC address (RFC 2827)	+
Destination MAC address (RFC 2827)	+
Ethertype (RFC 2827)	+
TCP Flags, Protocol type, IP fragment flags, DSCP, CoS, IP precedence (RFC 2827)	+
Rule prioritization and Re sequence	+
On-fly modification	+
ACL per rule statistics	+
Timed ACL	+
Hardware-Specific Features	
Switched port analyzer (SPAN)	+
Remote switched port analyzer (RSPAN)	+
Unified Forwarding Table (UFT)	+
Load balance	+
Dynamic load balancing (RTAG7 hash)	+
PHY/MAC level interface loopback	+
Port Breakout	+
TCAM space monitoring	+
Chassis Monitoring	
Temperature monitor	+
Fan control	+
Power Monitoring (PMBus)	+
CPU load monitoring	+
Board information (EEPROM)	+
Power Supply Unit (PSU) Field Replacement Unit (FRU) information	+
Fan FRU information	+
Hardware MIB and Traps	+
Digital Diagnostics Monitoring (Transceiver)	
Temperature monitor (SFF-8024, SFF-8436, SFF-8472, SFF-8679)	+
Power Monitoring (Power, Current, Voltage) (SFF-8024, SFF-8436, SFF-8472, SFF-8679)	+
Hardware MIB and Traps	+

Поддержка VxLAN (для моделей CS4148Q-8U и CS4132U)

Программное обеспечение	BCOM-BASE
Virtual Extensible LAN (VXLAN)	
Layer 2 EVPN for VXLAN (RFC 7348, RFC 7432, RFC 8365)	+
Layer 2 EVPN Multihoming for VXLAN (RFC 7432, RFC 8365)	+
VXLAN - QoS (RFC 2474)	+



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VXLAN - Ethernet Virtual Connection (EVC) (RFC 7348)	+
Integrated Routing and Bridging (IRB) with VXLAN (RFC 9135)	+
VXLAN IRB QoS (RFC 2474)	+
Prefix Route for EVPN IRB for VxLAN (RFC 9136)	+
VXLAN EVPN ARP/ND cache Ageing (draft-ietf-bess-evpn-proxy-arp-nd-02)	+
Inter-VRF route leaking over VXLAN-EVPN (RFC 9135, RFC 4364)	+
DHCP Relay for VXLAN IRB (RFC 6607)	+
VXLAN tunnel over SVI interface (RFC 7348, RFC 8365)	+
SNMP support for VXLAN statistics and traps (RFC 7348, RFC 3416)	+
Static VXLAN (RFC 7348)	+
VXLAN Trunk as access port (RFC 7348)	+
VXLAN - Overlay Equal-Cost Multipath (ECMP) (RFC 7348)	+

Информация для заказа

Артикул	Описание
B4T-CS4148D-6U-AC-B-SW	B4COM CS4148D-6U, Коммутатор 48x10GbE SFP+ & 6x100GbE QSFP28 switch, 2,56T6/c HW&SW, включая ПО BCOM-OS, Power-to-Port air, 2xAC, 2xC13-C14 cords
B4T-CS4148D-6U-AC-F-SW	B4COM CS4148D-6U, Коммутатор 48x10GbE SFP+ & 6x100GbE QSFP28 switch, 2,56 T6/c HW&SW, включая ПО BCOM-OS, Port-to-Power air, 2xAC, 2xC13-C14 cords
B4T-CS4148Q-8U-AC-B-SW	B4COM CS4148Q-8U, Коммутатор 48x25GbE SFP28 & 8x100GbE QSFP28 switch, 4T6/c HW&SW, включая ПО BCOM-OS, Power-to-Port air, 2xAC, 2xC13-C14 cords
B4T-CS4148Q-8U-AC-F-SW	B4COM CS4148Q-8U, Коммутатор 48x25GbE SFP28 & 8x100GbE QSFP28 switch, 4 T6/c HW&SW, включая ПО BCOM-OS, Port-to-Power air, 2xAC, 2xC13-C14 cords
B4T-CS4132U-AC-B-SW	B4COM CS4132U, Коммутатор 32x100GbE QSFP28 & 2xSFP+, 6.4 T6/c HW&SW, включая ПО BCOM-OS, Power-to-Port air, 2xAC, 2xC13-C14 cords
B4T-CS4132U-AC-F-SW	B4COM CS4132U, Коммутатор 32x100GbE QSFP28 & 2xSFP+, 6.4 T6/c HW&SW, включая ПО BCOM-OS, Port-to-Power air, 2xAC, 2xC13-C14 cords
B4T-CS4164U-AC-B-SW	B4COM CS4164U, Коммутатор 64x100GbE QSFP28, 6.4 T6/c, 2RU HW&SW, включая ПО BCOM-OS, Power-to-Port air, 2xAC, 2xC13-C14 cords
B4T-CS4164U-AC-F-SW	B4COM CS4164U, Коммутатор 64x100GbE QSFP28, 6.4 T6/c, 2RU HW&SW, включая ПО BCOM-OS, Port-to-Power air, 2xAC, 2xC13-C14 cords
B4T-PWR-CS4148D-6U-AC-B	Блок питания для коммутаторов B4COM CS4148D-6U, Power-to-Port air, AC
B4T-PWR-CS4148D-6U-AC-F	Блок питания для коммутаторов B4COM CS4148D-6U, Port-to-Power air, AC
B4T-FAN-CS4148D-6U-B	Блок охлаждения для коммутаторов B4COM CS4148D-6U, Power-to-Port air
B4T-FAN-CS4148D-6U-F	Блок охлаждения для коммутаторов B4COM CS4148D-6U, Port-to-Power air
B4T-PWR-CS4148Q-8U-AC-B	Блок питания для коммутаторов B4COM CS4148Q-8U, Power-to-Port air, AC
B4T-PWR-CS4148Q-8U-AC-F	Блок питания для коммутаторов B4COM CS4148Q-8U, Port-to-Power air, AC
B4T-FAN-CS4148Q-8U-B	Блок охлаждения для коммутаторов B4COM CS4148Q-8U, Power-to-Port air
B4T-FAN-CS4148Q-8U-F	Блок охлаждения для коммутаторов B4COM CS4148Q-8U, Port-to-Power air



Коммутаторы серии CS4100

Техническое описание



B4T-PWR-CS4132U-AC-B	Блок питания для коммутаторов B4COM CS4132U, Power-to-Port air, AC
B4T-PWR-CS4132U-AC-F	Блок питания для коммутаторов B4COM CS4132U, Port-to-Power air, AC
B4T-FAN-CS4132U-B	Блок охлаждения для коммутаторов B4COM CS4132U, Power-to-Port air
B4T-FAN-CS4132U-F	Блок охлаждения для коммутаторов B4COM CS4132U, Port-to-Power air
B4T-PWR-CS4164U-AC-B	Блок питания для коммутаторов B4COM CS4164U, Power-to-Port air, AC
B4T-PWR-CS4164U-AC-F	Блок питания для коммутаторов B4COM CS4164U, Port-to-Power air, AC
B4T-FAN-CS4164U-B	Блок охлаждения для коммутаторов B4COM CS4164U, Power-to-Port air
B4T-FAN-CS4164U-F	Блок охлаждения для коммутаторов B4COM CS4164U, Port-to-Power air

Техническая поддержка B4COM CS4148D-6U

Артикул	Описание
B4T-SUP-CS4148D-6U-AC-SW1	Стандартная техническая поддержка HW&SW CS4148D-6U-AC-SW, 1 год
B4T-SUP-CS4148D-6U-AC-SW3	Стандартная техническая поддержка HW&SW CS4148D-6U-AC-SW, 3 года
B4T-SUP-CS4148D-6U-AC-SW5	Стандартная техническая поддержка HW&SW CS4148D-6U-AC-SW, 5 лет

Техническая поддержка B4COM CS4148Q-8U

Артикул	Описание
B4T-SUP-CS4148Q-8U-AC-SW1	Стандартная техническая поддержка HW&SW CS4148Q-8U-AC-SW, 1 год
B4T-SUP-CS4148Q-8U-AC-SW3	Стандартная техническая поддержка HW&SW CS4148Q-8U-AC-SW, 3 года
B4T-SUP-CS4148Q-8U-AC-SW5	Стандартная техническая поддержка HW&SW CS4148Q-8U-AC-SW, 5 лет

Техническая поддержка B4COM CS4132U

Артикул	Описание
B4T-SUP-CS4132U-AC-SW1	Стандартная техническая поддержка HW&SW CS4132U-AC-SW, 1 год
B4T-SUP-CS4132U-AC-SW3	Стандартная техническая поддержка HW&SW CS4132U-AC-SW, 3 года
B4T-SUP-CS4132U-AC-SW5	Стандартная техническая поддержка HW&SW CS4132U-AC-SW, 5 лет

Техническая поддержка B4COM CS4164U

Артикул	Описание
B4T-SUP-CS4164U-AC-SW1	Стандартная техническая поддержка HW&SW CS4164U-AC-SW, 1 год
B4T-SUP-CS4164U-AC-SW3	Стандартная техническая поддержка HW&SW CS4164U-AC-SW, 3 года
B4T-SUP-CS4164U-AC-SW5	Стандартная техническая поддержка HW&SW CS4164U-AC-SW, 5 лет