

Cisco Nexus 7000 I/O Module Comparison Matrix

Internal / External Info		N7K-M148GS-11	N7K-M148GS-11L	N7K-M148GT-11	N7K-M148GT-11L	N7K-M108X2-12L	N7K-M132XP-12	N7K-M132XP-12L	N7K-M224XP-23L	N7K-M208FC-23L	N7K-M202CF-24L	N7K-F132XP-15	N7K-F248XP-25	N7K-F248XP-25E	N7K-F248XT-25E	N77-F248XP-23E	N7K-F348XP-25	N7K-F312FQ-25	N7K-F306CK-25	N77-F348XP-23	N7K-F244FQ-25	N77-F312CK-26	N7K-M348XP-25L	N7K-M324FQ-25L	N77-M348XP-25L	N77-M324FQ-25L	N77-M312CQ-26L
General		General																									
Internal	Min. NX-OS Release	Min. NX-OS Release																									
External	Min. NX-OS Release	Min. NX-OS Release																									
External	LC Interoperability (same VDC)	LC Interoperability (same VDC)																									
External	Fabric Module 1 Support	Fabric Module 1 Support																									
External	Fabric Module 2 Support	Fabric Module 2 Support																									
External	SUP 1 Support	SUP 1 Support																									
External	SUP 2/2E Support	SUP 2/2E Support																									
External	7004 Chassis Support	7004 Chassis Support																									
External	7009 / 7010 / 7018 Chassis Support	7009 / 7010 / 7018 Chassis Support																									
External	7702 / 7706 / 7710 / 7718 Chassis Support	7702 / 7706 / 7710 / 7718 Chassis Support																									
Hardware Features		Hardware Features																									
Ports and Qty		Ports and Qty																									
External	Interface Type	Interface Type																									
External	Min. Fabric Requirements (for full bandwidth)	Min. Fabric Requirements (for max. throughput)																									
External	VoQ to Fabric Bandwidth	VoQ to Fabric Bandwidth																									
External	Fabric Interface	Fabric Interface																									
External	Forwarding Engine	Forwarding Engine																									
External	Performance (IPv4)	Performance (IPv4)																									
External	Performance (IPv6)	Performance (IPv6)																									
External	Module Memory (GB)	Module Memory (GB)																									
External	Typical Power Draw (W)	Typical Power Draw (W)																									
External	Max PowerDraw (W)	Max PowerDraw (W)																									
External	Port-to-port latency	Port-to-port latency																									
External	Card-to-card latency	Card-to-card latency																									
External	MAC Entries	MAC Entries																									
External	IPv4 Unicast Routes	IPv4 Unicast Routes																									
External	IPv4 Multicast Routes	IPv4 Multicast Routes																									
External	IPv6 Unicast Routes	IPv6 Unicast Routes																									
External	IPv6 Multicast Routes	IPv6 Multicast Routes																									
External	Adjacency Table	Adjacency Table																									
External	IPv4 ARP Entries	IPv4 ARP Entries																									
External	IPv6 ND Entries	IPv6 ND Entries																									
External	NetFlow	NetFlow																									
External	NetFlow Entries	NetFlow Entries																									
External	ACL Entries	ACL Entries																									
External	Queue Structures	Queue Structures																									
Internal	Buffer Size per Port (ingress)	Buffer Size per Port (ingress)																									
Internal	Buffer Size per Port (egress)	Buffer Size per Port (egress)																									
Internal	For F2/F2E/F3 cards: credited / uncredited	For F2/F2E/F3 cards: credited / uncredited																									
External	VoQ Buffer Per Card	VoQ Buffer Per Card																									

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	N7K-M148GS-11	N7K-M148GS-11L	N7K-M148GT-11	N7K-M148GT-11L	N7K-M108X2-12L	N7K-M132XP-12	N7K-M132XP-12L	N7K-M224XP-23L	N7K-M208FQ-23L	N7K-M202CF-22L	N7K-F132XP-15	N7K-F248XP-25	N7K-F248XP-25E	N7K-F248XT-25E	N7K-F248XP-23E	N7K-F348XP-25	N7K-F312FQ-25	N7K-F306K-25	N7K-F348XP-23	N7K-F324FQ-25	N7K-F312CQ-26	N7K-M348XP-25L	N7K-M324FQ-25L	N7K-M348XP-23L	N7K-M324FQ-25L	N7K-M312CQ-26L		
Internal	FEX Features																											
Internal	FEX Support																											
External	FEX Support - Min supported version																											
External	FEX Model Supported																											
Internal	FEX Straight Through (port-channel mode only)																											
Internal	FEX Active/Active to 2 Parents N7K																											
External	L2 Features																											
External	L2 Switchport (access / trunk)																											
External	L2 Port-Channel																											
Internal	STP - RPVST																											
Internal	STP - MST																											
Internal	VTP																											
External	vPC Support																											
External	L3 over vPC																											
Internal	vPC Peer-Link																											
Internal	vPC Peer-Link Member Ports and Both Endpoints Combinations																											
Internal	vPC Member Port																											
External	vPC+ - Min. NX-OS Release																											
Internal	vPC+ Peer-Link																											
Internal	vPC+ Peer-Link Member Ports and Both Endpoints Combinations																											
Internal	vPC+ Member Port																											
External	Storm-Control																											
External	FabricPath - Min. NX-OS Release																											
Internal	FabricPath Core Port																											
Internal	FabricPath Edge Port																											
Internal	UDLD																											
External	OIR																											
External	DHCP Snooping																											
External	MPLS Features																											
External	MPLS Support - Min. NX-OS Release																											
External	MPLS Support																											
Internal	LDP																											
Internal	L3VPN																											
Internal	MVPN																											
Internal	EoMPLS																											
Internal	MPLS TE-FRR 50ms switchover time																											
Internal	VPLS																											
External	L3 Features																											
External	L3 Interface																											
Internal	L3 Sub-Interface																											
External	L3 Port-Channel																											
Internal	L3 Port-Channel Sub-Interface																											
Internal	Unicast Routing Protocols IPv4 (EIGRP/RIP/OSPF/IS-IS/BGP)																											
Internal	Unicast Routing Protocols IPv6 (OSPFv3/IS-ISv6/BGPv6)																											
Internal	FHRP IPv4 (HSRP/VRRP/GLBP)																											
Internal	FHRP IPv6 (HSRPv6 / VRRPv3) Note: VRRPv3 will be supported in Freetown																											
External	ECMP																											
Internal	GR/NSF																											
Internal	OTV Support																											
External	OTV - Join Interface																											
External	OTV - Internal Interface																											
External	OTV - Min. NX-OS Release																											
External	VXLAN - Min. NX-OS Release																											
External	VXLAN - F&L/EVPN																											
External	DFA																											
External	LISP																											
Internal	LISP Proxy Interface																											
External	PBR																											
External	BFD																											
External	GRE Tunnel																											
External	Unicast RPF																											
External	WCCP																											
External	VRF-Lite																											
Internal	Proxy Layer-3 Forwarder / Replicator																											
External	Multicast Features																											
External	Multicast Support																											
Internal	IGMP Snooping																											
External	Multicast - Min. NX-OS Release																											
External	PIM SM																											

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External	PIM SSM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External	PIM Bi-Dir	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External	QoS Features	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External	IPv6 QoS	DSCP & COS	DSCP & COS	DSCP & COS	DSCP & COS	DSCP & COS	DSCP & COS	DSCP & COS	DSCP & COS	DSCP & COS	COS	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	
External	QoS Marking	DSCP & COS	DSCP & COS	DSCP & COS	DSCP & COS	DSCP & COS	DSCP & COS	DSCP & COS	DSCP & COS	DSCP & COS	COS	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	
External	QoS Queuing	COS	COS	COS	COS	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	COS + DSCP	
External	QoS - Min. NX-OS Release	5.1(1)	5.1(1)	5.1(1)	5.1(2)	5.1(1)	5.1(1)	5.1(1)	6.1(1)	6.1(1)	6.1(1)	5.1(1)	6.0(1)	6.1(2)	6.1(2)	6.2(2)	Yes 6.2(12)	Yes 6.2(6)	Yes 6.2(10)	Yes 6.2(6)	Yes 6.2(8)	Yes 6.2(6)	Yes [8.0(1)]	Yes [8.0(1)]	Yes [7.3(0)DX(1)]	Yes [7.3(0)DX(1)]	Yes [8.0(1)]	
External	QoS - SRR	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External	QoS - tail drop congestion avoidance	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External	QoS - WRED congestion avoidance	No	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External	QoS - DSCP to QUEUE mapping (Ingress)	No	No	No	No	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External	QoS - DSCP to QUEUE mapping (egress)	No	No	No	No	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	
External	QoS - policing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External	QoS - set discard_class or set qos_group	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External	QoS - per queue statistics	No	No	No	No	No	No	No	Yes ¹	Yes ¹	No	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹	
External	Security Features																											
External	MAC Sec - Min. NX-OS Release	5.2(1)	5.2(1)	5.2(1)	5.2(1)	5.2(1)	5.2(1)	5.2(1)	6.1(1)	6.1(1)	6.1(1)	No	No	6.2(0) (last 8 ports)	6.2(0)	6.2(0) (last 8 ports)	6.2(0)	6.2(0)	6.2(0)	6.2(0)	6.2(0)	6.2(0)	6.2(0)	6.2(0)	6.2(0)	6.2(0)	6.2(0)	6.2(0)
External	AAA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External	MAC ACL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External	PAQL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External	VACL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External	RAQL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External	CTS - SGACL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External	CTS - 802.1AE (MACSEC)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes (ports 41 to 48)	Yes (ports 41 to 48)	Yes (ports 41 to 48)	Yes (ports 41 to 48)	No	No	Yes (ports 41 to 48)	No	No	Yes	Yes	Yes	Yes	Yes	Yes	
External	802.1x	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External	PVLAN	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External	Port-Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External	Dynamic ARP Inspection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External	CoPP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External	Rate-Limiter (pps to CPU)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External	FCoE Features																											
External	FCoE Support	No	No	No	No	No	No	No	No	No	Yes	Yes (with SUP22E only)	Yes (with SUP22E only)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD	
Internal	FCoE VF Port (server attachment)	No	No	No	No	No	No	No	No	No	Yes	Yes (with SUP22E only)	Yes (with SUP22E only)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	
Internal	FCoE VE Port (FCF switch attachment)	No	No	No	No	No	No	No	No	No	Yes	Yes (with SUP22E only)	Yes (with SUP22E only)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	

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Internal / External Info	N7K-M148GS-11	N7K-M148GS-11L	N7K-M148GT-11	N7K-M148GT-11L	N7K-M108X2-12L	N7K-M132XP-12	N7K-M132XP-12L	N7K-M24XP-23L	N7K-M208FQ-23L	N7K-M202CF-24L	N7K-F132XP-15	N7K-F248XP-25	N7K-F248XP-25E	N7K-F248XT-25E	N7K-F248XP-23E	N7K-F348XP-25	N7K-F312FQ-25	N7K-F306K-25	N7K-F348XP-23	N7K-F324FQ-25	N7K-F312CK-26	N7K-M348XP-25L	N7K-M324FQ-25L	N7K-M348XP-23L	N7K-M324FQ-25L	N7K-M312CQ-26L
External	FCoE Support -Software Compatibility																									FCoE Support -Software Compatibility
External	Priority Flow Control (PFC)																									Priority Flow Control (PFC)
External	Embedded Management Features																									Embedded Management Features
External	Port-profile (inherit)																									Port-profile (inherit)
External	IEEE 1588 PTP																									IEEE 1588 PTP
External	PONG																									PONG
External	SPAN Sessions																									SPAN Sessions
External	SPAN Source																									SPAN Source
External	SPAN Destination																									SPAN Destination
External	ERSPAN Type 2 Source ERSPAN																									ERSPAN Type 2 Source ERSPAN
External	ERSPAN Type 2 Destination ERSPAN																									ERSPAN Type 2 Destination ERSPAN
External	ERSPAN Type 3 Source ERSPAN																									ERSPAN Type 3 Source ERSPAN
External	ERSPAN Type 3 Destination ERSPAN																									ERSPAN Type 3 Destination ERSPAN
External	SPAN - MTU Truncation																									SPAN - MTU Truncation
External	SPAN - Rate-Limit																									SPAN - Rate-Limit
External	SPAN - Min. NX-OS Release																									SPAN - Min. NX-OS Release
External	NETFLOW (Full Netflow)																									NETFLOW (Full Netflow)
External	NETFLOW (Sampled Netflow)																									NETFLOW (Sampled Netflow)
External	L3 NETFLOW																									L3 NETFLOW
External	L2 NETFLOW																									L2 NETFLOW
External	Bridged NETFLOW																									Bridged NETFLOW
External	Ingress / Egress NETFLOW																									Ingress / Egress NETFLOW
External	Sub-Interface NETFLOW																									Sub-Interface NETFLOW
External	ACL Capture																									ACL Capture
Internal	Config Session																									Config Session
Internal	Config Checkpoint/Rollback																									Config Checkpoint/Rollback
Internal	SNMP v1/v2c/v3																									SNMP v1/v2c/v3
Internal	XML																									XML
Internal	Wireshark																									Wireshark
Internal	IP SLA																									IP SLA
External	Serviceability Features																									Serviceability Features
External	VDC Ports Allocation																									VDC Ports Allocation
External	GOLD Support - Min. NX-OS Release																									GOLD Support - Min. NX-OS Release
Internal	GOLD Loopback Test																									GOLD Loopback Test
Internal	ISSU																									ISSU
Internal	EEM																									EEM
<p>Note:</p> <p>¹ Yes¹ indicates supported by the hardware ,however the feature would be enabled in future NX-OS software release;</p> <p>² indicate hardware support;</p> <p>Yes * indicate support for the feature, for more information consult NX-OS software release notes.</p> <p>General Disclaimer: Cisco may change the programs or products mentioned at any time without notice, Cisco Terms and Conditions apply https://www.cisco.com/web/siteassets/legal/terms_condition.html . Please contact your local sales representative for more information on nexus 7000 switches or visit www.cisco.com/go/nexus</p>																										