



Cisco

C6800IA-48TD

Datasheet



Product Overview

- Cisco’s Catalyst 6800ia line brings enterprise-grade access networking to campus environments, extending the power of the Catalyst 6500/6800 core.
- The C6800IA-48TD is an ideal solution for mid-sized enterprises, educational campuses, and multi-floor commercial buildings seeking simplified campus-wide network management.
- With 48 high-speed Gigabit Ethernet ports, dual 10G SFP+ uplinks, and advanced stacking, it is designed for high-performance and scalable deployments.
- C6800ia delivers multichassis EtherChannel and stacking, along with seamless integration to its parent switch for reliability without Spanning Tree overhead.
- Centralized traffic forwarding through the parent Catalyst switch ensures efficient, single-point policy enforcement and easier troubleshooting across distributed networks.
- Empowering enterprises to treat entire buildings as single switch domains, the C6800IA-48TD reduces admin burden while ensuring robust, consistent campus networking performance.

Product Highlights

- **Seamless Feature Inheritance:** C6800IA-48TD automatically inherits advanced security, routing, and policy features from the Catalyst 6500 Series Supervisor Engine 2T parent switch.
- **High-Density Gigabit Ports:** Equipped with 48 Gigabit Ethernet ports and 2 × 10G SFP+ uplinks, this switch enables fast and reliable network access for demanding modern enterprises.
- **Integrated FlexStack-Plus:** Supports up to 3-member stacking and delivers up to 80 Gbps stack bandwidth, allowing flexible growth with centralized management.
- **Versatile Management & Power:** Mini USB/Ethernet for easy console access, MACsec-ready ports, and external RPS support ensure secure, reliable operations.

Detailed Features



C6800IA-48TD

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Component	Specification
Switching Capacity	96 Gbps
Forwarding Rate	72 Mpps
Ports	48 × 10/100/1000BASE-T (RJ45), 2 × 10G SFP+ uplinks
Stacking	FlexStack-Plus, up to 3 switches (80 Gbps)



Instant Access Architecture

C6800IA-48TD is built as an Instant Access (IA) extension of Cisco Catalyst 6500/6800, providing a unified access network managed under a single parent switch for simplified network control across distributed sites.

Layer 3 Feature Inheritance

The device inherits Supervisor Engine 2T features such as Security Group Tags (SGT), Security Group Access Control Lists (SGACL), EIGRP, full IPv6 support, mediatrace, and MPLS. This ensures comprehensive compatibility and seamless protocol operations across the access and distribution layers.

High-Density Gigabit Connectivity

With 48 Gigabit Ethernet ports and 2 × 10G SFP+ uplinks, C6800IA-48TD delivers robust switching capacity and bandwidth for environments needing reliable wired access at scale, like campus or branch deployments.

Resilient Multi-Chassis Stacking

C6800IA-48TD supports multichassis EtherChannel and stacking, with up to three members in a stack and 80 Gbps stack bandwidth to maximize system availability, simplify scaling, and deliver continuous network performance.

MACsec Hardware Ready

All ports are MACsec-ready, providing hardware-level security for encrypted communications at line rate. This offers an extra layer of data protection for organizations handling sensitive or regulated information.

Energy-Efficient Ethernet & Dynamic Power

Supports IEEE 802.3az for efficient energy usage on all ports, dynamic PoE+ power mapping up to 740W per switch, and IEEE 802.3at-compliant PoE+ for 30W per port, optimizing both performance and operational cost.

Redundant Power & Flexible Management

External RPS redundancy options and dual mini USB/Ethernet console ports enable easy deployment with high availability and flexible network administration.

Spanning Tree-Free Links

Links between C6800IA-48TD and its parent switch bypass Spanning Tree Protocol, allowing for faster convergence, fewer loops, and improved reliability in complex campus networking scenarios.

Technical Specifications

Product Specifications

Feature	Value
Type	Instant Access (IA) Switch (Extension of Cisco Catalyst 6500/6800 Parent Switch)
Form Factor	1RU
Ports	48 × 10/100/1000BASE-T (RJ45), 2 × 10G SFP+ uplinks
Stacking	FlexStack-Plus (Up to 3 switches, 80 Gbps stack bandwidth)
Power over Ethernet (PoE)	PoE+ (IEEE 802.3at) up to 30W per port
Total PoE Budget	Not supported (Non-PoE model)
Management	Inherits all features from parent Catalyst 6500/6800 switch (SGT, SGACL, EIGRP, IPv6, MPLS, etc.), USB (Type B) & Ethernet (RJ-45) console ports
Switching Capacity	96 Gbps
Forwarding Rate	72 Mpps
VLANs	4,096 active / 4,096 IDs
MAC Addresses	32,000



Feature	Value
Multicast Entries - Layer 3	28,000
Multicast Entries - Layer 2	16,000
CPU Model	APM86392 600 MHz Dual-Core
Memory - DRAM	512 MB
Memory - Flash	128 MB
Memory - Buffer	16 MB shared
Dimensions (H × D × W)	1.75 × 11.0 × 17.5 in (4.45 × 27.94 × 44.45 cm)
Input Voltage	100–240V AC (auto-ranging)
Operating Temperature Min	32°F (0°C)
Operating Temperature Max	104°F (40°C)
Humidity	10% to 90% non-condensing
Stacking Cables Available	CAB-STK-E-0.5M (0.5m), CAB-STK-E-1M (1m), CAB-STK-E-3M (3m)
Redundancy	External RPS 2300 support (PWR-RPS2300)
Included Accessories	None (stacking cables sold separately)

Product Comparison

Feature	C6800IA-48TD	C9200-48T-A	Arista DCS-7010T-48-F
Port Count	48 × 10/100/1000BASE-T + 2 × 10G SFP+	48 × 10/100/1000BASE-T + 4 × 1G SFP	48 × 10/100/1000BASE-T + 4 × 1G SFP
Switching Capacity	96 Gbps	176 Gbps	176 Gbps
Forwarding Rate	72 Mpps	130.95 Mpps	130.9 Mpps
Stacking	Up to 3 via FlexStack-Plus	StackWise-160, up to 8	Up to 12 via MLAG
PoE Capability	Not supported (model-specific)	Not supported	Not supported
Layer 3 Features	Inherited from parent (SGT, SGACL, EIGRP, MPLS, IPv6)	Advanced L3, OSPF, IS-IS, EIGRP, BGP	Static, OSPF, BGP, RIP
Redundancy	External RPS 2300 support	Dual redundant power supplies	Dual redundant power supplies
Management	Centralized via parent Catalyst 6500/6800	Web UI, CLI, SNMP, NetFlow	CLI, SNMP, Web UI



Feature	C6800IA-48TD	C9200-48T-A	Arista DCS-7010T-48-F
Form Factor	1RU	1RU	1RU

Accessories

Category	Accessories
Included Accessories	<ul style="list-style-type: none">- Power Cord- Rack Mount Kit- Documentation Guide
Optional Accessories	<ul style="list-style-type: none">- CAB-STK-E-0.5M Stacking Cable- RPS 2300 Redundant Power Supply- SFP+ Transceiver Modules



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References

[1] Cisco Systems. (2023). Cisco Catalyst 6800ia Series Switches Datasheet. Retrieved from https://www.cisco.com/c/dam/global/ko_kr/products/pc/switches/6800/files/data-sheet-c78-728230-en.pdf