

1. WS-C3850-48U-L Cisco Core Switch Specification

Model	WS-C3850-48U-L
enclosure type	Rack-mountable - 1U
Ports	48 x 10/100/1000 (UPOE)
Network management Interface	<ul style="list-style-type: none">• Ethernet management port: RJ-45 connectors, 4-pair Cat-5 UTP cabling• Management console port: RJ-45-to-DB9 cable for PC connections
Available PoE Power	800W
Switching Capacity	176Gbps
Maximum stacking number	up to 9 switches with same IOS feature set in same series
Stack Bandwidth	480Gbps
Forwarding Performance	130.95Mpps
FNF (Flexible NetFlow) entries	Disabled (IP base license required)
Maximum VLANs IDs	255

AC Address Table Size	32K
CPU	Multicore CPU
RAM	4 GB
Flash Memory	2 GB
Wireless	
Number of AP per switch/stack	100
Number of wireless clients per switch/stack	2000
Total number of WLANs per switch	64
Wireless bandwidth per switch	up to 40Gbps
Supported Aironet AP series	3600, 3500, 2600, 1600, 1260, 1140, 1040
Expansion / Connectivity	
Console ports	USB (Type-B), Ethernet (RJ-45)
Expansion Slot(s)	1 network module slot and 1 power redundant slot
Network Modules Selection	<ul style="list-style-type: none">• C3850-NM-4-1G: 4 x 1G uplinks network module• C3850-NM-4-10G: 4 x 10G uplinks network module• C3850-NM-2-10G: 2 x 10G or 4 x 1G uplinks network module
Stacking cable	<ul style="list-style-type: none">• STACK-T1-50CM StackWise stacking cable with a 0.5 m length• STACK-T1-1M StackWise stacking cable with a 1.0 m length• STACK-T1-3M StackWise stacking cable with a 3.0 m length

Stack Power Cable (recommended)	<ul style="list-style-type: none"> •CAB-SPWR-30CM stack power cable with a 30CM length •CAB-SPWR-150CM stack power cable with a 150CM length
Power supply	PWR-C1-715WAC
Power Device	Power supply - redundant - plug-in module
Power Redundancy	optional
Voltage range (Auto)	100V-240V
Power Consumption of standalone (in Watts)	135.96 (Max)
Miscellaneous	
Width	17.5 Inches (44.5 cm)
Depth	17.7 Inches (44.5 Cm)
Height	1.75 Inches (4.45 cm)
Weight	17.4 Pounds (7.9Kg)
Rack Mounting Kit	optional
MTBF in hours	241,050

Compliant Standards	<ul style="list-style-type: none"> • IEEE 802.1D Spanning Tree Protocol • IEEE 802.1p CoS Prioritization • IEEE 802.1Q VLAN • IEEE 802.1s • IEEE 802.1w • IEEE 802.1X • IEEE 802.1X-Rev • IEEE 802.11 • IEEE 802.1ab (LLDP) • IEEE 802.3ad • IEEE 802.3x full duplex on 10BASE-T, 100BASE-TX, and 1000BASE-T ports • IEEE 802.3 10BASE-T • IEEE 802.3u 100BASE-TX • IEEE 802.3ab 1000BASE-T • IEEE 802.3z 1000BASE-X • RMON I and II standards • SNMP v1, v2c, and v3 • IEEE 802.3af and IEEE 802.3at
System software / license	
System software	IOS LAN Base (Upgradable)
EnergyWise license	ENERGY-MGMT, ENERGY-MGT-100-K9
Software license	C3850-48-L-S : LAN Base to IP Base RTU paper license C3850-48-L-E: LAN Base to IP Services RTU paper license L-C3850-48-L-S: LAN Base to IP Base RTU electronic license L-C3850-48-L-E: LAN Base to IP Services RTU electronic license

Access Point Licenses	<ul style="list-style-type: none"> •L-LIC-CT3850-UPG: Primary upgrade license SKU for Cisco 3850 wireless controller (e-delivery) •L-LIC-CTIOS-1A: 1 access point adder license for Cisco IOS Software based wireless controller (e-delivery) •LIC-CT3850-UPG: Primary upgrade license SKU for Cisco 3850 wireless controller (paper license) •LIC-CTIOS-1A: 1 access point adder license for the Cisco IOS Software based wireless controller (paper license)
Features	<ul style="list-style-type: none"> •EEM • RPS Support • IP service-level agreements (SLAs) • Advanced IP unicast routing protocols • Jumbo Frames • VLANs •Voice Vlan •VTPv2 •CDPv2 •LLDP • 802.3ad LACP and PAgP • PVST/PVST+ • 802.1W/802.1S •Port Fast/Uplink Fast •Dynamic Trunking Protocol (DTP) • port CoS Trust and Override • Trusted Boundary • ACL Classification •ingress Policing • Auto QoS • Per VLAN policies • 802.1p queues • Scheduling • Priority Queuing • Configure CoS Priority Queues •Configure CoS Priority Queues • Configure Queue Weights • Configure Buffers and Thresholds •Class & Policy Maps • Modify CoS and DSCP Mapping • Weighted Tail Drop • IGMPv1,v2,v3 and MLDv1, v2 • DHCP server • DSCP transparency • HSRP, VRRP, BGP • RIPv1, v2 EIGRP, PIM OSPF, OSPFv3, EIGRPv6, BGPv4, IS-ISv4 • VRF-lite • PIM-SM/DM, PIM sparse-dense mode, SSM • Flexible Netflow
Advanced Network security	<ul style="list-style-type: none"> • Port security • DHCP snooping •Dynamic ARP inspection (DAI) • IP source guard •The Unicast Reverse Path Forwarding (uRPF) • Bidirectional data support on a SPAN • User authentication • Private VLAN •Router and VLAN ACLs • complete identity and security • Multidomain authentication • MAC address notification • IGMP filtering • Cisco security VLAN ACL • Secure Shell (SSH) Protocol, Kerberos, and Simple Network Management Protocol Version 3 (SNMPv3) • Port-based ACLs • TrustSec SXP • IEEE 802.1ae • TACACS+ and RADIUS authentication • Cisco standard and extended IP security router ACLs • Bridge protocol data unit (BPDU) Guard • Spanning Tree Root Guard (STRG) • Wireless end-to-end security

Environmental Ranges	
With AC power supply Operating environment and altitude	
Operating temperature up to 5000 ft (1500 m)	23°F to 113°F (-5°C to +45°C)
Operating temperature up to 10,000 ft (3000 m)	23°F to 104°F (-5°C to +40°C)
Short-term exception at sealevel with single fan failure	23°F to 113°F (-5°C to +45°C)
Short-term exception up to 5000 feet (1500 m)	23°F to 122°F (-5°C to 50°C)

Short-term exception up to 10,000 feet (3000 m)	23°F to 113°F (-5°C to 45°C)
With DC power supply Operating environment and altitude (NEBS)	
Operating temperature up to 6000 ft (1800 m)	23°F to 113°F (-5°C to +45°C)
Operating temperature up to 10,000 ft (3000 m)	23°F to 104°F (-5°C to +40°C)
Operating temperature up to 13,000 ft (4000m)	23°F to 95°F (-5°C to 35°C)
Short-term exception up to 6,000 feet (1800 m)	23°F to 131°F (-5°C to +55°C)
Short-term exception up to 10,000 feet (3000 m)	23°F to 122°F (-5°C to +50°C)
Short-term exception up to 13,000 feet (4000 m)	23°F to 113°F (-5°C to +45°C)
Short-term exception at sealevel with single fan failure	23°F to 113°F (-5°C to +45°)
Storage environment	-40°F to 160°F (-40°C to 70°C)
Operating altitude	Up to 13,000 Feet (Up to 4000 Meters)
Storage altitude	Up to 15,000 Feet (Up to 4573 Meters)
Operating relative humidity	10% to 95% noncondensing
Storage relative humidity	10% to 95% noncondensing
Warranty	1-year hardware warranty, limited technical support for software and initial setup (from date of purchase).

2. 42U Rack Specification

Product Dimensions	32 x 24 x 84 inches (81.3 x 61 x 213.4 cm)
Item Weight	200 pounds (90 kg)
Color	Black
Size	42U (24"w x32"d x84"h) (10729 x 81.3 x 213.4 cm)
Material	Metal
Features	<ul style="list-style-type: none">• Thermostat with Thermosensor• LCD Screen Reports Working Parameters• 4 Cooling Fans• 2 X Dust-Tight Cable Entries• 8-outlet Power-bar• Casters With Stoppers• Heavy Duty Shelf• Mounting Cage Bolt/Nut Hardware• Fully Lockable Doors/Side Panels - 4 Keys• Breaker• PDU• All required full accessories