Cisco 812 CiFi Integrated Services Routers (3G/3.7G Cellular and Wi-Fi)

Enabling

The Cisco 812 CiFi (Cellular with Wi-Fi) Integrated Services Router (ISR) is available in standalone 3.7G or 3G/3.7G with dual 802.11n radio Wi-Fi in AP form factors. It offers the full features of Cisco IOS Software combined with 3G and wireless LAN management capabilities. The 812 CiFi ISR supports latest 3G standards (High-Speed Packet Access Plus [HSPA+] release 7 and Evolution Data Optimized [EVDO] Rev A) combined with Cisco Enterprise-class wireless LAN solutions.

The Wi-Fi capability of the 812 builds on the Cisco heritage of proactive interference protection with support for Cisco CleanAir technology. These innovative access points provide high-performance 802.11n connectivity for mission-critical mobility solutions, including:

- 3.7G HSPA+ release 7 or EVDO Rev A for cellular WAN backup or primary backhaul connection
- External dual 3G antennas for superior signal strength connectivity with receive diversity
- A dual subscriber identity module (SIM) capability that allows two service providers to offer services in one platform (for Global GSM models)
- Dual 802.11n radio support concurrent 2.4 GHz and 5.0 GHz with embedded 2X3 multiple input, multiple output (MIMO)
- 10/100/1000 IOS Gigabit Ethernet router port with an optional external mount Power over Ethernet Plus (POE+) power supply splitter
- Cisco Advanced IP Services IOS with ScanSafe and extensive security features

Figure 1 shows a Cisco 812 CiFi Integrated Services Router.

Figure 1. Cisco 812 CiFi Integrated Services Router



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The Cisco 812 CiFi ISR is available in both standalone 3.7G and 3G/3.7G with dual 802.11n radio Wi-Fi versions. Support for 3G offers cost-effective, rapidly deployable, reliable, and secure primary or backup connectivity. The Cisco 812 CiFi platforms concurrently support both 3G/3.7G for wireless WAN backhaul and Cisco dual 802.11n radio WLAN on the same platform as shown in Figure 2. The 802.11a/b/g/n 2X3 MIMO built-in Cisco 3500 Access Point (AP) in the Cisco 812, comes with Cisco's CleanAir technology, to create a self-healing, self-optimizing WLAN. Moreover, with the advantage of dual radio, the integrated AP can serve both as an access point and as a client to a wireless mesh network. This provides another source for WAN diversity along with Gigabit Ethernet and cellular. The AP ClientLink feature improves reliability and coverage for legacy devices and dynamic frequency selection (DFS allows detecting and avoiding interference with radar signals to comply with regulatory domains. Figure 2 shows the 812 CiFi ISR with integrated 3.7G and 802.11 a/b/g/n AP. More information on the Cisco 3500 Access Point is available at http://www.cisco.com/en/US/prod/collateral/wireless/ps5678/ps10981/data_sheet_c78-594630.html

Figure 2. Cisco 812 CiFi Integrated Services Router with 3.7G and Wi-Fi



A critical component of the Cisco 812 CiFi architecture, the Cisco 812 CiFi ISR serves as the single, horizontal platform which enhances the Cisco implementation of "any device, anywhere, any place" across multiple industries. It also provides the ability to extend Cisco product-based networks to small branch offices with a relatively low incremental investment, as well as to enable managed services offerings based on Cisco architecture.

Product Overview

The Cisco 812 CiFi ISRs supports WWAN cellular 3.7G High-Speed Packet Access Plus [HSPA+] and 3G Evolution Data Optimized [EV-DO Rev A]). They are backward compatible with High-Speed Packet Access (HSPA), Universal Mobile Telecommunications Service (UMTS). Enhanced Data Rates for Global Evolution (EDGE), General Packet Radio Service (GPRS), and EV-DO Rev 0/1xRTT. The Cisco 812 CiFi includes an integrated WLAN access point.

- Global System for Mobile Communications (GSM) and UMTS models are based on the Third-Generation Partnership Project (3GPP), and they support HSPA+ (High-Speed Uplink Packet Access [HSUPA] and High-Speed Downlink Packet Access [HSDPA]), UMTS, EDGE, and GPRS.

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- Code Division Multiple Access (CDMA) models are based on 3GPP2, and they support EV-DO Rev A and Rev 0 and 1xRTT.

The Cisco 812 CiFi ISR family includes a broad range of enterprise-class features including:

- Security services, including firewall, intrusion prevention, VPN and Cisco ISR Web Security with ScanSafe which require no additional hardware or client software, This enables Enterprise branch, remote branch offices, temporary sites, and retails, for example to intelligently redirect web traffic to the cloud to enforce granular security and acceptable use policies over user web traffic. With this solution, you can deploy market-leading web security quickly and easily to protect branch office users from web-based threats, such as viruses, while saving bandwidth, money, and resources.
- Additional WAN options such as Gigabit Ethernet WAN interface, the Cisco 812 CiFi provides quality-of-service (QoS) features for optimizing voice and video applications.
- Cisco Configuration Professional is a web-based configuration tool that simplifies setup and deployment. Centralized management capabilities give network managers visibility and control of the network configurations at remote sites.
- With enhanced data rates and improved latency (below 100 milliseconds), WWAN services are an ideal way to supplement traditional wire line services. Third-generation WWAN data services offered today have average data rates well in excess of ISDN speeds, with theoretical limits in excess of 21.1 Mbps on the downlink and 5.76 Mbps on the uplink. The 3G/3.7G WWAN can be used as a primary link for sites with lower bandwidth requirements. The 3G/3.7G data services can also be used as a cost-effective alternative in areas where broadband services are either not available or very expensive. Cisco is building on these performance milestones and adding support for wireless to our wide variety of WAN interface alternatives.

Business Benefits and Application Examples

Businesses are looking for ways to reduce costs, increase revenue, and improve business continuity. The 3G/3.7G wireless connectivity, allows a small enterprise branch office or remote office to set up comprehensive media services in a matter of hours, without worrying about availability of broadband services and the need for laying down the lines. Wireless carriers offer flexible, usage-based data plans that can be catered to meet the needs and price points of the business customer. As WAN backup alternatives, 3G/3.7G wireless offer greater WAN diversity and resiliency because they are independent of the local terrestrial infrastructure. The Cisco 812 CiFi ISR enables businesses to stay productive during service provider downtime or a network failure. The dual 802.11n radio WLAN on the 812 CiFi ISR can serve as both a client and an access-point.

Retail VPN

Retail stores migrating from dialup connections for point-of-sale transactions can use the 3G or 3.7G wireless WAN option on the Cisco 812 CiFi ISR for low-cost broadband access with the required security to comply with data security requirements. Multiple devices and applications can then be added to the store network to take advantage of the increased bandwidth and to enable secure mobility and enhance productivity.

Managed Services

Service providers and value-added resellers can use the Cisco 812 CiFi ISR as a platform to offer differentiated business-class security and wireless LAN (WLAN) services for small and medium-sized business (SMB) customers. Superior management capabilities such as Simple Network Management Protocol (SNMP) support with 3G MIB and Cisco Configuration Professional make remote management and provisioning easier.

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Primary Features and Benefits

Table 1 lists the features and benefits of the Cisco 812 CiFi Integrated Services Router.

Table 1. Features and Benefits of Cisco 812 CiFi ISR

Feature	Benefit
Single platform for multiple applications	• This single architecture is uniquely designed for deployments in multiple remote applications small branch offices, remote teleworker sites, temporary locations, retail, hotspots and extension to Enterprise location.
Increased performance to run concurrent services	• Performance allows customers to take advantage of broadband network speeds while running secure, concurrent data, voice, video, and wireless services.
Enhanced security	• An integrated stateful and application inspection firewall provides network perimeter security and high-speed IP Security (IPsec); 3DES and AES encryption offer data privacy over the Internet. • Intrusion prevention enforces security policies in a larger enterprise or service provider network. • Content filtering offers category-based URL classification and blocking, thus providing increased productivity and better use of company resources. • ScanSafe web security and filtering solution that requires no additional hardware or client software. Enables remote locations to intelligently redirect web traffic to the cloud to enforce granular security and acceptable use policies over user web traffic.
Integrated WLAN Access Point	• Integrates the Cisco 3500 802.11 a/b/g/n Access Point for mission-critical applications. By intelligently avoiding interference, the WLAN feature offers performance protection for 802.11n networks to help ensure reliable application delivery. The 2X3 MIMO AP comes with Cisco's CleanAir technology, the industry's first to create a self-healing, self-optimizing wireless network. • With dual radios, the Cisco AP can serve both as an access point and as a client to a wireless mesh network concurrently,providing another source for WAN diversity. • The AP ClientLink feature improves reliability and coverage for legacy devices • Dynamic frequency selection (DFS) allows detecting and avoiding interference with radar signals to comply with regulatory domains. More information on the Cisco 3500 AP is available at: http://www.cisco.com/en/US/prod/collateral/wireless/ps5678/ps10981/data_sheet_c78-594630.html
Transparent Roaming Between Wireless Networks	
Dual subscriber-identity-module (SIM) support	• Hardware readiness for Dual SIM provides for high reliability and cellular multi-homing support for HSPA and HSPA+ based networks.
Cisco IOS Mobile IP features	• Mobile IP offers transparent roaming for mobile networks, establishing a transparent Internet connection regardless of location or movement. This enables mission-critical applications to stay connected even when roaming between networks. • Assigned IP addresses to the home network are maintained in private or public networks.
Cisco IOS Mobile network features	• Allows an entire subnet or mobile network to maintain connectivity to the home network while roaming.
Multiple wireless WAN technologies	• Supports the best wireless (3G or 3.7G) technology or network available.
Advanced IP Services in Standards-Based Cisco IOS Software	
Advanced security features	• Authorization and authentication determines which individuals and devices have access to the network. • Firewall protection provides perimeter security when using public networks. • 3DES and AES encryption provides for highly secure VPNs when transmitting and receiving data over public networks. • Intrusion detection monitors potential malicious activity within the network.
QoS features	• Provides traffic precedence to delay-sensitive or prioritized applications. • Facilitates low-latency routing of delay-sensitive applications such as streaming video.
IP Multicast	• Allows efficient broadcast of data or video for increased situational awareness, multiuser communications, or surveillance applications.

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Feature	Benefit
Management and manageability	• Network managers can remotely manage and monitor networks with SNMP, Telnet, or HTTP, and locally through a console port. • Support for extensive 3G based MIBs allows for centralized management of remote devices and gives network managers visibility and control of the network configurations at the remote site. • Network managers can reset to a pre-designated golden image as well as configure an ISR through Cisco IOS Software or through an external reset button. • Network managers can upgrade 3G or 3.7G firmware and router configurations remotely and confirm enhancement verification. • Tight integration with Cisco IOS Software allows you to self-monitor the functions of the 3G or 3.7G modems and auto-recover from a failure. • Cisco Configuration Professional provides a web-based tool that simplifies setup and deployment. • Intuitive network management tools such as Cisco NCS Prime, CiscoWorks and HP OpenView are supported.

Product Specifications

Table 2 provides 3G specifications for the Cisco 812 CiFi Integrated Services Router.

Table 2. 3G Specifications

Item	Specification
3G or 3.7G modem form factor	Embedded (included with the router)
Important 3G features	• Auto-switch failover between primary and backup link • Multichannel-interface-processor (MIP) profile configuration • CDMA Data Retry • 3G SNMPv2 MIBs and traps • Remotely initiated data callback using voice • Remotely initiated data callback using Short Message Service (SMS) • Remote firmware upgrade over 3G • Virtual diagnostic monitoring • Mobile Equipment Personalization (MEP) lock and unlock capabilities • SIM lock and unlock capabilities
Dual SIM support 	• High reliability and cellular multi-homing support for HSPA and HSPA+ based networks • Dual SIM card socket; compliant with ISO-7816-2 (SIM mechanical) • Two Internal SIM Card Slots: ◦ C812G+7-K9, C812G-CIFI+7-E-K9, C812G-CIFI+7-N-K9 • No SIM Card Slot: ◦ C812G-CIFI-V-A-K9, C812G-CIFI-S-A-K9
SMS and Global Positioning System (GPS) 	• Ability to send and receive SMS (maximum of 160 characters) • Standalone GPS
MIBs 	• 3G MIB • ENTITY MIB • IF MIB • 3G WWAN MIB persistence
3G network management and diagnostics	• In-band and out-of-band management using Telnet (Cisco IOS Software command-line interface [CLI]) and SNMP, including MIB II and other extensions • Industry-standard 3G diagnostics and monitoring tools (QUALCOMM CDMA Air Interface Tester [CAIT] and Spirent Universal Diagnostic Monitor [UDM])
Modem information	Modem form factor: Embedded Peripheral Component Interconnect (PCI) minicard • C812G+7, C812G-CIFI+7-E, C812G-CIFI+7-N: Sierra Wireless MC8705 supporting HSPA+ Release 7 • C812G-CIFI-V-A, C812G-CIFI-S-A: Sierra Wireless MC5728V
Programming interfaces	Cisco IOS Software CLI

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Item	Specification	
Wireless technologies supported (performance and throughput) **For more detail such as Wi-Fi domains, please see the Cisco Aeronet 3500 AP Data Sheet:** **http://www.cisco.com/en/US/prod/collateral/wireless/ps5678/ps10981/data_sheet_c78-594630.html**	• Part Number: C812G+7-K9, C812G-CIFI+7-E-K9 and C812G-CIFI+7-N-K9 • HSPA+: 850, 900, 1900, and 2100 MHz (forward link up to 21Mbps; reverse link up to 5.76 Mbps) • Backward compatibility: ◦ HSDPA: 850, 900, 1900, and 2100 MHz (forward link up to 21 Mbps; reverse link up to 384 kbps) ◦ UMTS: 850, 900, 1900, and 2100 MHz (forward link up to 2.0 Mbps; reverse link up to 384 kbps) ◦ EDGE: 850, 900, 1800, and 1900 MHz (forward link up to 236 kbps; reverse link up to 124 kbps) ◦ GPRS: 850, 900, 1800, and 1900 MHz ◦ WiFi Domain: Please see the 3500 AP Data Sheet:	• Part Number: C812G-CIFI-V-A-K9 and C812G-CIFI-S-A-K9 • CDMA 1xEV-DO Rev A (forward link up to 3.1 Mbps; reverse link up to 1.8 Mbps) • Backward compatibility: ◦ CDMA 1xEV-DO Rev 0 (forward link up to 2.4 Mbps; reverse link up to 153.6 kbps) ◦ CDMA 1xRTT (forward link up to 153.6 kbps; reverse link up to 153.6 kbps) • S = Sprint networks; V = Verizon wireless networks • WiFi Domain: Please see the 3500 AP Data Sheet:
Frequency bands supported	Part Number: C812G+7-K9, C812G-CIFI+7-E-K9 and C812G-CIFI+7-N-K9 • 850, 900, 1900, and 2100MHz WCDMA bands (HSUPA, HSDPA, and UMTS) • 850, 900, 1800, and 1900 MHz GSM bands (EDGE and GPRS)	Part Number: C812G-CIFI-V-A-K9 and C812G-CIFI-S-A-K9 • 800 MHz: North American cellular band • 1900 MHz: North American PCS band • S = Sprint networks; V = Verizon wireless networks
Included antenna	Cellular Access: Two multiband swivel-mount dipole antennae (3G-ANTM1919D) are included for all 812 SKUs that have 3G Cellular functionality WLAN: Embedded 2X3 MIMO antennas	
LED indicators for 3G and WiFi	• WLAN (green/blue/red/white) • WWAN (green) For detailed LED Description including WWAN and WLAN please see the 812 Hardware Installation Guide.	
Carrier support	For an updated list of carriers that offer services on the Cisco 812G and 812G CIFI Series, please visit: http://www.cisco.com/go/cifi.	
802.11n Version 2.0 (and Related Capabilities	• 2x3 multiple-input multiple-output (MIMO) with two spatial streams • Maximal ratio combining (MRC) • Legacy beamforming • 20- and 40-MHz channels • PHY data rates up to 300 Mbps • Packet aggregation: A-MPDU (Tx/Rx), A-MSDU (Tx/Rx) • 802.11 dynamic frequency selection (DFS) • Cyclic shift diversity (CSD) support Other WiFi data rates and domain specifications: http://www.cisco.com/en/US/prod/collateral/wireless/ps5678/ps10981/data_sheet_c78-594630.html	
WLAN Certifications		

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Table 3 lists the software features supported on the Cisco 812 CiFi Integrated Services Router.

Table 3. Cisco IOS Software Features on Cisco 812: Advanced IP Features Set (Default)

Feature	Description
Cisco IOS Software requirement	Cisco IOS Software Release 15.2(4)M2 or later Cisco IOS AP 802 Software Release 7.3 (default autonomous mode)
IP and IP services features	• Routing Information Protocol Versions 1 and 2 (RIPv1 and RIPv2) • Generic routing encapsulation (GRE) and multipoint GRE (MGRE) • Cisco Express Forwarding • Standard 802.1d Spanning Tree Protocol • Layer 2 Tunneling Protocol (L2TP) • Layer 2 Tunneling Protocol Version 3 (L2TPv3) • Network Address Translation • Dynamic Host Configuration Protocol (DHCP) server, relay, and client • Dynamic Domain Name System (DNS) • DNS Proxy • DNS Spoofing • Access control lists (ACLs) • IPv4 and IPv6 Multicast • Open Shortest Path First (OSPF) • Border Gateway Protocol (BGP) • Performance Routing (PfR) • Enhanced Interior Gateway Routing Protocol (EIGRP) • Virtual Route Forwarding (VRF) Lite • Next Hop Resolution Protocol (NHRP) • Bidirectional Forwarding Detection (BFD) • Web Cache Communication Protocol (WCCP)
Security features	Secure connectivity: • Secure Sockets Layer (SSL) VPN for secure remote access • Hardware-accelerated DES, 3DES, AES 128, AES 192, and AES 256 • Public-key-infrastructure (PKI) support • 20 IPsec tunnels • Cisco Easy VPN Client and Server • NAT transparency • Dynamic Multipoint VPN (DMVPN) • Tunnel-less Group Encrypted Transport VPN • IPsec stateful failover • VRF-aware IPsec • IPsec over IPv6 • Adaptive control technology • Session Initiation Protocol (SIP) application layer gateway Cisco IOS Firewall: • Zone-Based Policy Firewall • VRF-aware stateful inspection routing firewall • Stateful inspection transparent firewall • Advanced application inspection and control • Secure HTTP (HTTPS), FTP, and Telnet Authentication Proxy • Dynamic and static port security • Firewall stateful failover • VRF-aware firewall Content filtering: • Subscription-based content filtering with Trend Micro • Support for Websense and SmartFilter • Cisco IOS Software blocked and allowed lists Integrated threat control:

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Feature	Description
	• Intrusion prevention system (IPS) • Control Plane Policing • Flexible Packet Matching • Network foundation protection Scansafe: • Web security and web filtering solution that requires no additional hardware or client software . • Cisco ScanSafe enables branch offices to intelligently redirect web traffic to the cloud to enforce granular security and acceptable use policies over user web traffic. With this solution, you can deploy market-leading web security quickly and easily to protect branch office users from web-based threats, such as viruses, while saving bandwidth, money, and resources.
QoS features	• Low Latency Queuing (LLQ) • Weighted Fair Queuing (WFQ) • Class-Based WFQ (CBWFQ) • Class-Based Traffic Shaping (CBTS) • Class-Based Traffic Policing (CBTP) • Policy-Based Routing (PBR) • Class-Based QoS MIB • Class of service (CoS)-to-differentiated services code point (DSCP) mapping • Class-Based Weighted Random Early Detection (CBWRED) • Network-Based Application Recognition (NBAR) • Link fragmentation and interleaving (LFI) • Resource Reservation Protocol (RSVP) • Real-Time Transport Protocol (RTP) header compression (cRTP) • Differentiated Services (DiffServ) • QoS preclassify and prefragmentation • Hierarchical QoS (HQoS)
Management features	• Cisco Configuration Professional • Cisco Configuration Express • Cisco Configuration Engine support • Cisco AutoInstall • IP service-level agreement (IP SLA) • Cisco IOS Embedded Event Manager (EEM) • Cisco NCS Prime and CiscoWorks • Cisco Security Manager • Telnet, SNMPv3, SSH, CLI, and HTTP management • RADIUS and TACACS+ • Out-of-band management with external modem through virtual auxiliary port
High-availability features	• Virtual Router Redundancy Protocol (VRRP) (RFC 2338) • Hot Standby Router Protocol (HSRP) • Multigroup HSRP (MHSRP) • Dial backup with external modem through virtual auxiliary port • Dual SIM support for cellular multihoming
Metro Ethernet features	• Ethernet operations, administration, and maintenance (OAM) • Ethernet Local Management Interface (LMI) • IP SLA for Ethernet
IPv6 features	• IPv6 addressing architecture • IPv6 name resolution • IPv6 statistics • IPv6 translation: Transport packets between IPv6-only and IPv4-only endpoints (NAT-PT) • Internet Control Message Protocol Version 6 (ICMPv6) • IPv6 DHCP
Number of recommended users	20

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Table 4 lists the system specifications, and Table 5 lists antenna specifications for the Cisco 819 Integrated Services Routers.

Table 4. System Specifications

Feature	Specification	
Memory		
Default and maximum DRAM	All C812 models 512 MB	
Default and maximum flash memory	All C812 models: 512 MB	
Interface Support		
Console or auxiliary port	RJ-45: Single dual-purpose port, which provides direct connection to a console or external modem for management or backup access point	
WAN interfaces	• Wireless WAN AP802 with 3G and 3.7G speeds • 10/100/1000 Gigabit Ethernet port • Outside ceiling and wall mounting options (brackets included)	
WLAN Features	• Embedded 2x3 multiple-input multiple-output (MIMO) with two spatial streams • Maximal ratio combining (MRC) • Legacy beamforming • 20- and 40-MHz channels • PHY data rates up to 300 Mbps • Packet aggregation: A-MPDU (Tx/Rx), A-MSDU (Tx/Rx) • 802.11 dynamic frequency selection (DFS) • Cyclic shift diversity (CSD) support	
Physical Characteristics		
Physical dimensions (H x W x D)	All Cisco 812G models: 2.01 x 8.95 x9.49 inches (51 x 227 x 241 mm)	
Weight	All Cisco 812G models: 3.96 lbs (1.8 kg)	
Mean time between failure (MTBF – Ground Benign)	SKUs	MTBF Hours
	C812G+7-K9	340,000
	C812G-CIFI+7-E-K9 and C812G-CIFI+7-N-K9	280,000
	C812G-CIFI-V-A-K9 and C812G-CIFI-S-A-K9	210,000
Maximum platform power consumption	Cisco 8192G 11 watts	Cisco C812G CIFI 18 watts
Environmental operating range	All Cisco 812G models: -13 to 140 F (-25 to 60 C) IP 20 per IEC 60529	
Operating altitude	Derate max 1.5 C per 1,000 ft above 5,000 ft Maximum altitude: 10,000 ft	
Standard safety certifications	• UL 60950-1, 2nd edition • CAN/CSA C22.2 No. 60950-1, 2nd edition • EN 60950-1, 2nd edition • CB to IEC 60950-1, 2nd edition with all group differences and national deviations • AS/NZS 60950-1, Edition 1 (Australia nad New Zealand)	
EMC emissions	EN55022/CISPR22, CFR 47 Part 15, ICES003, VCCI-V-3, AS/NZS CISPR22, CNS13438, EN300-386, EN61000-3-2, EN61000-3-3, and EN61000-6-1	
EMC immunity	EN55024/CISPR24, (EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-11), and EN300-386	
Radio Immunity	EN301 489-1, EN 301 489-7, and EN301 489-24	
Cellular radio	EN 301 908-1, EN 301 908-2, EN 301 511, 47 CFR Part 22, and 47 CFR Part 24	
Humidity	Maximum 85% non-condensing RH	

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Feature	Specification
Power specifications	The default configuration includes an external AC adapter that supplies up to 20 W of power. The AC power connection is a two-pin IEC 320 C8 receptacle. A mating AC power cord is supplied. The AC adapter does not provide chassis grounding to the router. A 1.3 meter long output cable connects to the router. AC Power Adapter • Input Voltage: 85-264 VAC 100-240 VAC nominal • Maximum Power Consumption: 25W • Maximum Output Power Rating: 20 W (5VDC, 4 Amps)

Ordering Information

For Cisco ISR 812 CiFi ordering information, please visit the Cisco Ordering Home Page and refer to Table 5.

Table 5. Cisco 812 CiFi Integrated Services Router Ordering Information

Product	Description
Cisco 819H Hardened Integrated Services Routers 3G only	
C812G+7-K9	3.7G Secure IOS Router with GLOBAL HSPA+ Release 7 based on MC8705
C812G-CIFI+7-E-K9	3.7G and dual 802.11n radio WiFi Secure IOS Router with GLOBAL HSPA+ Release 7 based on MC8705 and –E WLAN domain
C812G-CIFI+7-N-K9	3.7G and dual 802.11n radio WiFi Secure IOS Router with GLOBAL HSPA+ Release 7 based on MC8705 and –N WLAN domain
C812G-CIFI-V-A-K9	3G and dual 802.11n radio WiFi Secure IOS Router with EVDO Rev A based on MC5728V and –A WLAN domain
C812G-CIFI-S-A-K9	3.7G and dual 802.11n radio WiFi Secure IOS Router with EVDO Rev A based on MC5728V and –A WLAN domain
Power Supplies and Mounting Brackets	
PWR2-20W-AC	AC Power Adapter for C812G SKUs
C810-POE-SPL	External POE+ power supply spliter
IOS SW and Licenses	
S812UK9-15204M	Cisco 812 Series IOS Universal Data (Default)
S812DNPK9-15204M	Cisco 812 Series IOS Universal Data with No Payload Encryption
SL-810-AIS	Cisco 812 Advanced IP Services License (Default)
SL-810-ADVSEC	Cisco 812 Advanced Security Software License (Default)
SL-810-AIS-NPE	Cisco 812 Advanced IP Services License with No Payload Encryption (Default with NPE IOS Image)
SL-810-ADVSEC-NPE	Cisco 810 Advanced Security Software License with No Payload Encryption (Default with NPE IOS Image)
S802W7K9-12425JAX	Cisco AP 802 Series IOS WIRELESS LAN LWAPP
S802RK8W8-15202JA	Cisco AP 802 Series IOS WIRELESS LAN LWAPP RECOVERY
FL-C810-WAASX	Cisco 810 WAAS Express (Default for all C812 SKUs).

For More Information

For more information regarding Cisco 800 Series Integrated Services Routers and options, contact your Cisco representative or go to http://www.cisco.com/go/isr.

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Cisco and Partner Services for the Borderless Network Architecture

Enable the Cisco Borderless Network Architecture and the business solutions that run on it with intelligent, personalized services from Cisco and our partners. Backed by deep networking expertise and a broad ecosystem of partners, these services can help you plan, build, and run a network that enables you to expand geographically, embrace new business models, and promote business innovation. Whether you are looking to transition to a Cisco Borderless Network Architecture, solve specific business problems, or improve operational efficiency, we have a service that can help you get the most from your IT environment. For more information, please visit http://www.cisco.com/go/services.

Warranty Coverage and Technical Service Options

The Cisco 812 CiFi Integrated Services Router comes with the Cisco 1-year limited hardware warranty. Adding a contract for a technical service offering such as Cisco SMARTnet® Service provides benefits not available with warranty, including access to OS updates, Cisco.com online resources, and Cisco Technical Assistance Center (TAC) support services. Table 6 shows the available technical services.

For information about Cisco warranties, visit http://www.cisco.com/go/warranty.

For information about Cisco Technical Services, visit http://www.cisco.com/go/ts.

For information about Cisco 812 CiFi, hardware, and software overview, visit http://www.cisco.com/go/cifi

http://www.cisco.com/en/US/docs/routers/access/800/812/hardware/install/guide/overview.html

http://www.cisco.com/en/US/docs/routers/access/800/812/software/configuration/guide/prod_overview.html

http://www.cisco.com/en/US/docs/routers/access/800/812/software/configuration/guide/C812_scg.html

Table 6. Cisco Technical Services for Cisco 819 Integrated Services Routers

Technical Services
Cisco SMARTnet Service • Global access to the Cisco TAC 24 hours a day • Unrestricted access to the extensive Cisco.com resources, communities, and tools • Next-business-day, 8 x 5 x 4, 24 x 7 x 4, and 24 x 7 x 2 advance hardware replacement[1] and onsite parts replacement and installation available • Ongoing operating system software updates within the licensed feature set[2] • Proactive diagnostics and real-time alerts on Smart Call Home-enabled devices
Cisco Smart Foundation Service • Next-business-day advance hardware replacement as available • Business-hours access to SMB Cisco TAC (access levels vary by region) • Access to Cisco.com SMB knowledge base • Online technical resources through Smart Foundation Portal • Operating system software bug fixes and patches

[1]Advance hardware replacement is available in various service-level combinations. For example, 8 x 5 x Next business day (NBD) indicates that shipment will be initiated during the standard 8-hour business day, 5 days a week (the generally accepted business days within the relevant region), with NBD delivery. Where NBD is not available, same-day shipment is provided. Restrictions apply; please review the appropriate service descriptions for details.

[2]Cisco operating system updates include maintenance releases, minor updates, and major updates within the licensed feature set.

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Cisco Systems, Inc.
San Jose, CA

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
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