ISR4431-AX/K9 Datasheet

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Overview

ISR4431-AX/K9 integrated router combines high-performance, scalability, Data Center features and smart router is made to run multiple services. This is the only router in industry separates control data and services planes, so the benefits are numerous. With pay-as-you-grow performance, you can increase forwarding capacity when needed, you only pay for the performance you need. The ISR4431-AX/K9 runs multi-core, multi-threaded advanced secruity IOS-XE operating system to enable both WAN link security and MPLS and OTV services. Full featured WAN optimization with that run native on the motherboard without affecting performance, management and other capabilities. According to the scalability, ISR 4431 designed as a layer 7 router basically, the advanced network services enable the branch to utilize the WAN intelligently is really what ISR 4400 series all about. The Cisco ISR 4431 is the ultimate application delivery platform to mid-size or even large branch offices. This is literally routing redefined.

Quick Specs

Figure 1 shows the appearance of Cisco ISR4431/K9 for reference. ISR4431-AX/K9 is similar with it.



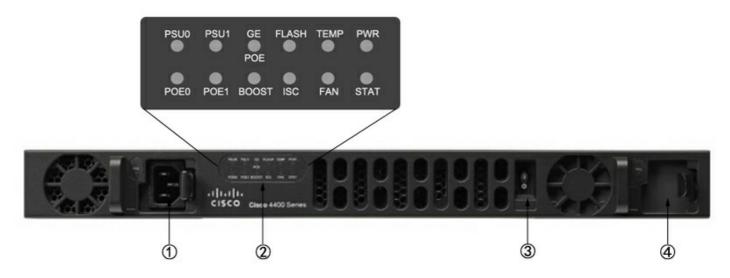
Table 1 shows the Quick Specs.

Product Code	ISR4431-AX/K9	
Aggregate Throughput	500 Mbps to 1 Gbps	
Total onboard WAN or LAN 10/100/1000 ports	4	
RJ-45-based ports	4	
SFP-based ports	4	
Enhanced service-module (SM-X) slot	0	
NIM (Network Interface Modules) slots	3	
Onboard ISC slot	1	
DDRM (data plane)	2 GB (default) / 2 GB (maximum)	
DDRM (control/services plane)	4 GB (default) / 16 GB (maximum)	
Flash Memory	8 GB (default) / 32 GB (maximum)	
Power-supply options	Internal: AC, DC, and PoE	
Rack height	1 RU	

Dimensions (H x W x D)	43.9 x 438.15 x 507.2 mm	
Package Weight	20.88 Kg	

Product Details

Figure 2 shows the front panel of Cisco ISR4431/K9for reference. ISR4431-AX/K9 is similar with it. .



Note:

(1)	Power supply unit	(3)	Router power On/Off switch
(2)	LEDs	(4)	Optional power supply unit

 $[\]cdot$ LEDs include 12 indicators.

Table 2 shows the LED descriptions.

LEDs	Represents	Color Description	
		Green	PSU is on and is providing power.
PSU	Power Supply Unit (P0 and P1) Status	Amber	PSU is on but with errors or in a failure condition.
		Off	Power supply is turned off.
		Green	PSU is installed and providing power
GE POE	Internal PoE Daughter Card Status	Amber	PSU is installed but in a failure condition.
		Off	PSU is off.
FLASH	ASH System Flash Status B		Compact flash/eUSB flash is present and currently being accessed.
		Solid green	All temperature sensors in the system are within acceptable range.
TEMP	Temperature Status	Amber	One or more temperature sensors in the system are outside the acceptable range.
		Off	Temperature is not being monitored.
	System Power	Green	System power is on and functioning correctly.
		Green blinking	System power is in the process of shutting down.
PWR		Amber	System power is up, but low level initialization failed.
		Amber blinking	System power is up, but the system failed to come out of reset.

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		Off	System power is off.
POE BOOST	Power Over Ethernet Boost Mode	Green	Two PoE power supplies are installed and operating in boost mode.
		Off	This can mean one of the following: ·No PoE PSU installed. ·One PoE PSU installed. ·Two PoE PSUs installed and operating in redundant mode.
	ISC Slot Status	Green	PVDM4 is present and enabled.
ISC		Amber	Initialized with error.
		Off	Not present.
	Fan Status	Green	All fans are operating.
		Amber	One fan has stopped working.
FAN		Blinking Amber	Two or more fans have stopped working, or the fan tray has been removed.
		Off	Fans are not being monitored.
	System Status	Solid green	System operating normally.
STAT		Blinking amber	BIOS/Rommon is booting.
		Amber	BIOS/Rommon has completed booting, and system is at Rommon prompt or booting platform software.
		Off	System is not out of reset or BIOS image is not loadable.

Figure 3 shows the back panel of Cisco ISR4431/K9for reference. ISR4431-AX/K9 is similar with it.



Note:

(1)	GE management port	(5)	Console port
(2)	Auxiliary port	(6)	GE Ports
(3)	USB Type A port	(7)	NIM Slots
(4)	USB Type B mini port		

 $[\]cdot$ The NIMs support 2 single-wide or 1 double-wide.

The Modules, Cards, Licenses & Accessories

[·]The GE Ports include 4 RJ45 ports and 4 SFP ports.

Table 3 shows some recommended modules, cards, licenses and several cables.

Items	Models	Descriptions	
	CAB-AUX-RJ45	Cisco CAB-AUX-RJ45 Auxiliary Cable 8ft with RJ45 and DB25M	
	CAB-ETH-S-RJ45	Cisco Router Cable CAB-ETH-S-RJ45	
Console and Auxillary Cables	CAB-CONSOLE- RJ45	Cisco CAB-CONSOLE-RJ45 Console Cable 6ft with RJ45 and DB9F	
	CAB-CONSOLE- USB	Cisco CAB-CONSOLE-USB Console Cable 6 ft with USB Type A and mini-B	
Licenses L-SL-44-APP-K9= Cisco ISR 4431/4451 AppX license L-SL-44-APP-K9= with WAAS/v RTU		Cisco ISR 4431/4451 AppX license L-SL-44-APP-K9= with WAAS/vWAAS 1300/2500 conns RTU	
	NIM-1MFT-T1/E1	Cisco Fourth-Generation Multiflex Trunk Voice and WAN network interface module	
	NIM-2CE1T1-PRI	Cisco Multiflex Trunk Voice and WAN network interface module	
Network Interface Modules	NIM-4E/M	Analog voice network interface card (ear and mouth)	
Network Interface Modules	NIM-2FXS	Cisco Analog voice network interface card NIM-2FXS	
	NIM-2FXS/4FXO	Cisco Analog voice network interface card NIM-2FXS/4FXO	
	NIM-8MFT-T1/E1	Cisco Fourth-Generation Multiflex Trunk Voice and WAN network interface module	
	GLC-SX-MMD	Cisco GLC-SX-MMD 1000BASE-SX SFP transceiver module, MMF, 850nm, DOM	
SFPs for On-Board GE Ports	GLC-LH-SMD	Cisco GLC-LH-SMD 1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM	
	GLC-ZX-SMD	Cisco GLC-ZX-SMD 1000BASE-ZX SFP transceiver module, SMF, 1550nm, DOM	

Compare to Similar Items

Table 4 shows the comparison chart.

Models	ISR4431-AX/K9	ISR4431/K9
Description	Cisco ISR 4431 Advanced services router (2GE,2NIM,1SM,4G FLASH,4G DRAM,MPLS, OTV)	Cisco ISR 4431 (4GE,3NIM,8G FLASH,4G DRAM,IP Base)
Aggregate Throughput	500 Mbps to 1 Gbps	500 Mbps to 1 Gbps
Total onboard WAN or LAN 10/100/1000 ports	4	4
RJ-45-based ports	4	4
SFP-based ports	4	4
Enhanced service- module slots	0	0
NIM slots	3	3
Onboard ISC slot	1	1
Rack height	1	1

Get more information

Do you have any question about the Cisco ISR4431-AX/K9?

Contact us now via **Live Chat** or **sales@router-switch.com**.

Specification

ISR4431-AX/K9 Specification			
Description	Cisco ISR 4431 Advanced services router (2GE,2NIM,1SM,4G FLASH,4G DRAM,MPLS, OTV)		
Aggregate Throughput	500Mbps to 1Gbps		
Total onboard WAN or LAN 10/100/1000 ports	4		
RJ-45-based ports	4		
SFP-based ports	4		
Enhanced service-module slots	0		
Doublewide service-module slots	0		
NIM slots	3		
OIR (all I/O modules)	Yes		
Onboard ISC slot	1		
Default memory double-data-rate 3 (DDR3) error-correction-code (ECC) DRAM (Combined control/services/data planes)	NA		
Maximum memory DDR3 ECC DRAM (Combined control/services/data planes)	NA		
Default memory DDR3 ECC DRAM (data plane)	2 GB		
Maximum memory DDR3 ECC DRAM (data plane)	2 GB		
Default memory DDR3 ECC DRAM (control/services plane)	4 GB		
Maximum memory DDR3 ECC DRAM (control/services plane)	16 GB		
Default flash memory	8 GB		
Maximum flash memory	32 GB		
External USB 2.0 slots (type A)	2		
USB console port -type B mini (up to 115.2 kbps)	1		
Serial console port - RJ45 (up to 115.2 kbps)	1		
Serial auxiliary port - RJ45 (up to 115.2 kbps)	1		
Power-supply options	Internal: AC, DC, and PoE		
Redundant power supply	Internal: AC, DC, and PoE		
AC input voltage	100 to 240 VAC autoranging		
AC input frequency	47 to 63 Hz		
AC input current range, AC power supply (maximum)	3 to 1.3A		
AC input surge current	60 A peak and less than 5 Arms per half cycle		
Typical power (no modules) (watts)	65		
Maximum power with AC power supply (watts)	250 (no PoE)		
Maximum power with PoE power supply (platform only) (watts)	500 with PoE redundant		

Download Resource

Support and Resources

- Cisco ISR 4000 Series Router Datasheet
- Comparison of Cisco ISR 4000 Models
- 🔁 Cisco 4000 Series Integrated Services Routers Frequency Asked Question
- 🔁 Cisco 4000 Series Integrated Services Routers Configuration Guide

Transition Guide

- Guide to Select New Cisco Routers
- Guide to Upgrade Your ISR G1 and ISR G2 Routers to ISR 4000

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