

Cisco ISR4331/K9

ISR 4300 SERIES MODULAR INTEGRATED SERVICES ROUTER

Cisco IOS XE
1RU Modular Architecture

The **Cisco ISR4331/K9** is a versatile 1RU modular enterprise router designed for medium-sized branch offices. Delivering 100 Mbps base throughput (upgradable to 300 Mbps via licensing), integrated multi-core architecture, NIM and SM expansion slots, DSP voice acceleration, and enterprise-grade security, it serves as an ideal edge platform for WAN routing, SD-WAN, and unified communications.

BASE THROUGHPUT

100 Mbps

Upgradable to 300 Mbps

WAN / LAN PORTS

3x GE

1x RJ45, 1x SFP, 1x Combo

EXPANSION SLOTS

2x NIM + 1x SM

1x ISC (PVDM4) Slot

SYSTEM MEMORY

4 GB RAM

Upgradable to 16 GB

KEY PLATFORM ARCHITECTURAL FEATURES

Pay-as-You-Grow Throughput

Delivers 100 Mbps default aggregate forwarding performance out of the box, easily software-upgradable to 300 Mbps performance license without replacing hardware.

Modular Expansion Flexibility

Houses 2 Network Interface Module (NIM) slots and 1 Enhanced Service Module (SM-X) slot for T1/E1, 4G LTE/5G, FXS/FXO voice interfaces, and high-density Ethernet switching.

Integrated Digital Signal Processor (DSP)

Features 1 onboard Internal Services Card (ISC) slot supporting PVDM4 voice modules for IP telephony, conferencing, and analog voice gateway services.

Cisco Catalyst SD-WAN Ready

Full support for Cisco Catalyst SD-WAN architecture with zero-touch provisioning (ZTP), application-aware routing, and central cloud control via vManage.

SYSTEM HARDWARE & INTERFACE SPECIFICATIONS

Component	Specification Details
Onboard WAN/LAN Ports	3x Gigabit Ethernet Ports (1x Dedicated RJ-45 + 1x Dedicated SFP + 1x Combo RJ-45/SFP)
NIM Expansion Slots	2x Network Interface Module (NIM) slots (Supports dual-wide NIM modules)
SM Expansion Slots	1x Enhanced Service Module (SM-X) slot (Single-wide)
Internal Services Card (ISC)	1x ISC slot supporting High-Density PVDM4 Voice DSP Modules
System Memory (RAM)	4 GB default (DDR3 ECC) – Upgradable to 16 GB max
Flash Memory Storage	4 GB default – Upgradable to 16 GB max
Console & Aux Ports	1x USB Micro-B Console + 1x RJ-45 Console + 1x RJ-45 Auxiliary Port
External USB Interfaces	1x USB 2.0 Type-A high-speed host port for configuration and logging

PERFORMANCE & LICENSING METRICS

Performance Tier	Throughput	License / Software Requirement
Base Default Performance	100 Mbps Aggregate	Standard IP Base / SEC License included out-of-the-box
Performance License Tier	200 Mbps Aggregate	Software License Upgrade (FL-4330-PERF-DEF)
Boost License Tier	300+ Mbps / Uncapped	Boost License Upgrade (FL-4330-BOOST-DEF)
IPsec VPN Performance	Up to 250 Mbps	Hardware IPsec crypto engine with Security (SEC) License
Concurrent IPsec Tunnels	Up to 1,000 Tunnels	Maximum scalable active encrypted site-to-site VPN tunnels

NETWORKING, VOICE & SECURITY PROTOCOL MATRIX

Supported Cisco IOS XE Architecture Features						
Cisco IOS XE	BGP4 / MP-BGP	OSPFv3	EIGRP	VRF-Lite	DMVPN	GETVPN
IPsec AES-256	Zone-Based Firewall	Snort IPS	Cisco Umbrella	Cisco CUBE (Unified Border Element)	SRST / Voice Gateway	
HQoS / NBAR2						

PHYSICAL, ENVIRONMENTAL & POWER SPECIFICATIONS

Parameter	Specification Details
Form Factor	1RU Rack-Mountable Metal Chassis (19-inch standard rack mounts included)
Dimensions (H x W x D)	1.75 x 17.25 x 17.2 in. (44.5 x 438 x 437 mm)
Unit Weight	13.7 lbs (6.2 kg)
Power Supply Options	Internal AC Power Supply (100 to 240 VAC, 50 to 60 Hz) / Optional Internal PoE Supply
Power Consumption	Typical: 42W Max non-PoE: 125W Max with PoE: 250W
Operating Temperature	32°F to 104°F (0°C to 40°C) at sea level
Operating Relative Humidity	5% to 85% non-condensing relative humidity
MTBF	587,250 Hours
Compliance Standards	UL 60950-1, CAN/CSA C22.2 No. 60950-1, EN 60950-1, FCC Part 15 Class A, CE Mark

TARGET DEPLOYMENT SCENARIOS & ORDERING INFO

Target Deployment Scenarios Ideal for enterprise branch offices, regional headquarters, financial institutions, and government facilities requiring modular WAN interface flexibility, local IP telephony termination, high-security IPsec VPNs, and SD-WAN cloud routing.	Ordering Information Base Part Number: ISR4331/K9 Performance Upgrade: FL-4330-PERF-DEF= Boost License: FL-4330-BOOST-DEF= Power Module: PWR-4330-AC / PWR-4330-POE-AC
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