

IAS Router FIBER

The IAS Router FIBER is unlike other commercially available enterprise routers in that it has been designed from the ground up as a small form factor TEMPEST Level 1 Compliant IP networking appliance that performs the roles of several stand alone IT networking and computing devices. The IAS Router FIBER is part of IAS's Router EXTREME product family. IAS Router EXTREME units provide users with enterprise class IP networking routing capabilities, a VPN concentrator, a managed Ethernet switch, and a virtual machine server. The IAS Router FIBER does so in a form factor that is small, portable, AND is **TEMPEST Level 1 Compliant** for use in applications that require TEMPEST. The IAS Router FIBER is one quarter the size of other stand alone TEMPEST fiber interface routers, yet the IAS Router FIBER also includes the processing horsepower needed to perform the role of a Virtual Machine Server. The IAS Router FIBER is also able to run Cisco's ESR5921 or ASA v for users to desire to use Cisco's router IOS but wish to leverage the IAS Router FIBER form factor.

The IAS Router FIBER can be ordered in many OS configurations, to include: IAS Router, Cisco's ESR5921, VMware vSphere, and Citrix XEN Sever. The IAS Router FIBER, running IAS Router Firmware, supports most commercial VPN modes of operation, interoperable with various vendors, including both SSL and IPSEC based VPN modes, but also includes the National Security Agency's (NSA) Suite B cryptography based VPN modes known as the High Assurance Internet Protocol Security Internet Protocol Minimum Essential Interoperability Requirement's (HAIP Sec. IPMEIR).

Whereas traditional off the shelf enterprise class routing hardware is big and bulky, and not conducive to being "back-packable" the IAS Router FIBER's small size and weight make portable transport pain free. Should IT rack mounting be desired, two IAS Router FIBER units can be used side by side within 3U of rack space and only take up 9" of depth. The IAS Router FIBER offers hard mounting points for KG-250x units, and mounting points for affixing itself in ridged mount applications. IAS Router FIBER leverages Small Form-factor Pluggable (SFP) interfaces, affording the user the ultimate network interface flexibility. Users can mix and match their fiber interfaces as they need, and do so using SFP transceivers from their vendor of choice. The IAS Router FIBER includes an integral Uninterruptible Power Supply (UPS), that when used with an IAS approved battery provides users piece of mind that their IAS Router FIBER will remain up and running in the most austere operating environments. The IAS Router FIBER consumes less than 65 watts of current in full utilization, and can be powered by 10-30 VDC or with the provided 85-264 VAC 47-63Hz power brick. Contact IAS for additional details or a demonstration.



Key Features:

- TEMPEST Level 1 Compliant
- 16 Gigabit SFP (Routable) interfaces
- RS232 Console Port
- NSA Suite B IPsec (IPMEIR) VPN
- SSL VPN (Cisco compatible)
- Enterprise Class Routing Protocols and Capabilities
- Web browser based GUI with IAS Router OS, VMware vSphere and Citrix XEN
- Cisco ESR5921 / Cisco IOS Capable (optional)
- Integral Uninterruptible Power Supply
- KG-250X Hard Mounting Points

IAS Router FIBER:

- 4.5" Tall
- 8.25" Wide
- 9.0" Deep
- 6.3 Lbs
- 85~264 VAC 47~63Hz Auto Ranging Auto Sensing Power Supply Included

Applications:

- TEMPEST IP Networking Router / VPN Concentrator
- TEMPEST Managed Ethernet Switch
- TEMPEST Virtual Machine Server

The IAS Router FIBER

Government and Military Communicators are often forced to use large, power hungry, enterprise class IP networking appliances that have been “uplifted” to meet TEMPEST requirements. Whereas these appliances may meet the technical requirements of the user, they are often designed as traditional IT rack mount gear and no consideration has been made to keep their size, weight and power consumption to a minimum in support of portable use. The IAS Router FIBER is a first of its kind, built from the ground up, TEMPEST Level 1 Compliant small form factor IP networking router, managed switch, virtual machine server, and general purpose computing appliance/converged device. The IAS Router FIBER has been designed to support Government and Military Communicators with TEMPEST Level 1 requirements in portable or dynamic use scenarios. Weighing less than 7 pounds (approx. 3 Kilograms), measuring less than 316 cubic inches in volume (4.5” tall by 9.0” deep by 8.25” wide) the IAS Router FIBER is truly portable.

The IAS Router FIBER uses the Intel E3-1220LV2 ultra low power (17watt) 22nm technology 2.3 GHz 2 core 4 thread server processor. This processor supports Intel’s VT-d & VT-x virtualization technologies, as well as supports Intel’s AES New Instruction set, Enhanced SpeedStep, vPRO, and Turbo Boost Technologies. IAS Router Fiber comes standard with 16 Gig of RAM, allowing for complex virtualization implementations /environments. The flexibility of the IAS Router FIBER is unprecedented in the TEMPEST device community, and is only limited by the user’s configuration imagination.

The IAS Router FIBER is OS flexible. Customers who desire Cisco IOS support can do so leveraging Cisco’s ESR5921 “software router” firmware, effectively turning the IAS Router FIBER into a Cisco Router. However, other IAS Router FIBER options are running IAS Router firmware natively, running a Type 1 Bare Metal Hypervisor natively and running IAS Router Firmware or Cisco ASA as a virtual machine. Additionally, other virtual machines can be run in support of whatever the users needs are. These might include a WAN accelerator, Radio over IP software server, VoIP server, etc. The IAS Router FIBER OS options are vast, and IAS is ready, willing, and able to support customers’ specific desires and applications on a case by case basis as needed.

Looking for an IAS Router FIBER like device that supports multiple video displays? 10/100/1000 Ethernet? USB 3.0 ports? 802.11 Wi-Fi Radios? Contact IAS for information on the IAS Router EXTREME18, the IAS Router FIBER’s non-TEMPEST variant.

Technology:

Cisco Router IOS

- ESR5921 (Optional, contact IAS for information)

Virtual Machine Hypervisors

- VMware vSphere, Citrix XEN, KVM, Hyper-V

IAS Router OS

- Internet Protocol version 4 (IPv4) and version 6 (IPv6)
- Dynamic Host Configuration Protocol (DHCP) server and client
- NSA Suite B Cryptography
- IPSEC and SSL virtual private networking (VPN) modes
- Internet Key Exchange version 1, 2 (IKEv1, IKEv2) and MOBIKE
- Generic Routing Encapsulation (GRE) tunnels
- Open Shortest Path First (OSPF)
- Network Address Translation (NAT)
- 802.1q standard (VLAN)
- Load Balancing
- QoS / Traffic Shaping
- MAC filtering
- Firewall
- Zone Based Firewalls
- Intrusion Detection Security / Intrusion Protection Security
- Content Filtering
- Remote Configuration and Monitoring
- Simple Network Management Protocol version 3 (SNMPv3)
- Protocol Independent Multicast
- IGMP
- Access Control Lists
- Network Time Protocol (NTP) capable
- Next Hop Resolution Protocol (NHRP)

Interface:

- 16 - Gigabit SFP ports - Individually assignable
- 1 - RS232 Console Port
- 4 - USB 3.0 (not operational in TEMPEST mode)
- 2 - RJ 10/100/1000 Ethernet ports (not operational in TEMPEST mode)

Performance:

- Routing: Wire Speed
- Suite B IPsec Throughput: > 250 Mbps Aggregate

Management:

- Configuration: CLI, Web browser GUI, Backup/Restore
- SNMP
- Syslog

Miscellaneous:

- Power: 10-30 VDC input, 85~264 VAC 47/63Hz Auto Ranging Auto Sensing PSU Included
- Power Consumption: Max. 65 Watts
- Operating Temperature: 0C ~ +70C Operating Humidity: 5% ~ 95% (non-condensing) Storage Temperature: -40 ~ +85C
- Warranty: 1 year