

SDN-A™ HRW X2100

Software Definable Network-Appliance™ Half Rack Width (HRW)

The **Software Definable Network- Appliance (SDN-A)**

Half Rack Width (HRW) X2100 is Sub-U Systems'

highest performing SDN-A, featuring Intel®

Xeon D2100 Series processors with Intel

QuickAssist® Technology (QAT). Intel QAT

significantly increases cryptographic

performance by adding dedicated

cryptographic acceleration hardware

on the Intel Xeon CPU, supporting 20

Gbps and 50 Gbps AES encryption

performance levels. By using the dedicated cryptographic

acceleration logic, the balance of the Intel Xeon processor can be leveraged for

software based Virtualized Networking Functions (VNF) or application servers.



The SDN-A HRW X2100 combines the capabilities of an “all WAN technology consuming” IP networking router, a 12-port switch, and an enterprise-class virtual machine (VM) server into a single HRW appliance. It offers a multitude of commercial networking technologies that include Ethernet (copper and fiber), 802.11ax Wi-Fi 6, 3G/4G/5G upgradable Cellular, and additional Ethernet based commercial WAN technologies support. Because the SDN-A HRW X2100 is software programmable, it yields a flexible, scalable, interoperable solution that is future proof. It has enough processing power to support today's software-based IP networking technologies and performance levels to support impending 5G use cases and beyond.

SDN-A Technology

The SDN-A HRW X2100 leverages SUB-U's Software Definable Network-Appliance (SDN-A) technology, which allows you to create a networking appliance based on your preferred vendor's software-based VNFs. SDN-As support several different VM hypervisors, along with networking function VMs from companies such as Cisco, Aruba, Juniper, Palo Alto, Fortinet, and SUB-U (IAS ROS). When used with SUB-U's IAS ROS hypervisor, users can benefit from the SDN-A's cellular and Wi-Fi transport technologies.

Network Function Virtualization (NFV)

The SDN-A HRW X2100 looks and functions like a rugged tactical IP router. It is also a purpose-built x86 based enterprise-class appliance with enough processing power, memory and storage to support running a dozen or more VMs on a single piece of hardware, significantly reducing the overall size, weight, power consumption and cost of deployable communications solutions. SDN-As support most commercial vendors' software-based IP networking function and application server based VM technologies, including:

- ◀ SUB-U IAS Router Operation System (IAS ROS) (as a bare metal hypervisor* or as a VM)
- ◀ Cisco CSR1000v, ASAv, ISR1000v, Viptela/vEdge (on VMware or IAS ROS*)
- ◀ Aruba Virtual Mobile Controller (VMC) (on VMware or IAS ROS*)
- ◀ Palo Alto Networks VM Firewall (on VMware, Cisco NFVIS, or IAS ROS)
- ◀ Windows Server 2012 and 2016 VMs (on VMware or IAS ROS)
- ◀ Linux VMs (on VMware or IAS ROS)
- ◀ Juniper SRXv (on VMware or IAS ROS)
- ◀ More to come



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Specifications

- ◀ 8.3 x 1.6 x 10.8 inches (WxHxD)
- ◀ Weight: < 4lbs, 1.82kg
- ◀ Operating Temperature: -4°F ~ +158°F
- ◀ Wide Range Dirty DC Input: 9 ~ 36 VDC
- ◀ Power Consumption: 100 ~ 120W
- ◀ (2) 802.11ac, 802.11ax, and/or 3G/4G/5G cellular radios

- ◀ RJ45 console interface
- ◀ Wide range 9~36VDC input, Wide range 83~264 VAC, 50/60Hz PSU included
- ◀ Features Intel Quick Assist Technology

Applications

- ◀ NSA Commercial Solutions for Classified (CSfC)
- ◀ Forward Operating Bases
- ◀ Continuity of Operations use cases

Scalability with Tactical Field Office

The SDN-A HRW X2100 is one of a family of HRW appliances designed for use as standalone desktop appliances, within the Tactical Field Office (TFO) 2U or 3U Chassis System or the TFO-MINI, a carbon fiber VIP roller board case that is small enough to stow in an aircraft overhead storage bin.

Other Half Rack Width Appliances and Related Products

Software Definable Network-Appliances™

- ◀ HRW SDN-A™ BaNks
- ◀ HRW SDN-A™ Xeon® D-2100NT w/Intel® QAT
- ◀ HRW SDN-A™ C3000 w/Intel® QAT
- ◀ HRW SDN-A™ MICRO

Compute Nodes

- ◀ HRW Intel® Xeon® D-1500 (8c/16t, 12c/24t, and 16core/32thread variants)
- ◀ HRW Intel® Xeon® D-2100IT (8c/16t, 12c/24t, and 16core/32thread variants)
- ◀ HRW Intel® Xeon® D-2100IT TEMPEST Level 1

Ethernet Switches

- ◀ HRW Cisco® ESS3300 – (26) RJ45 1G ports, (2) 10G, (10) 802.3at PoE ports
- ◀ HRW Netgear M4300 – 8 10G RJ45 & 8 10G SFP+
- ◀ HRW Netgear M4300 – 12 10G RJ45 & 12 10G SFP+
- ◀ HRW Netgear M4300 – 24 10G RJ4



Miscellaneous

- ◀ HRW Haivision Kraken Video Transcoder
- ◀ HRW AC input – (8) 150watt 24VDC output PSU
- ◀ HRW AJ Power Source AC & DC input – 400 watt PSU with scalabe UPS battery (8 output)
- ◀ HRW JPS Interoperability RoIP appliance (8 input w/radio control)

