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# HardwareWall®

**Tactical Secure Data Transfer System** 

### **HardwareWall®**

#### **Current Environment**

Military, security and law enforcement operations critically depend on the timely sharing of data, while analysts and decision makers demand integrated technologies that employ the latest techniques for data collection, analysis and retrieval. As data often resides across various domains and at different levels of classification, the ability to view and fuse data is critical in providing a greater level of fidelity and visibility during operations.

## Boeing Solution: The HardwareWall® 2U-3L Tactical Appliance: Rapid, Rugged, Automated & Secure

Designed by The Boeing Company, the HardwareWall® 2U3L Tactical Appliance is an off-the-shelf cross domain solution that combines security, speed, ruggedness and reliability, with ease of integration and modularity. It supports high to low, low to high and bidirectional transfer within and between multiple security domains— Top-secret, Secret and Unclassified. HardwareWall® systems enable bi-directional and near-real-time transfer of data among TS/SCI systems and unclassified systems on open networks.

HardwareWall®supports many protocols, including but not limited to: streaming video and position data, logistics data, email, Microsoft formats, web browsing, real-time message traffic and large and small files in various classified and unclassified formats.

### **Security-Speed-Reliability**

HardwareWall® combines physical one-way transfer, mandatory access control, data labeling, content review and multiple proxies to enable secure, rapid cross- domain transfer of data with various formats and in large quantities. With the

ability to use 10Gbps fiber connections end to end, the HardwareWall® is able to achieve some of the highest raw transfer speeds in the industry—winning multiple independent transfer speed comparisons using actual customer use-cases.

### **Versatility: Built for extreme environments**

The Hardware Wall® is deployable across many tactical platforms because it has been independently tested to meet or exceed MIL-STD-810G, MIL-STD-461F, DO-160 and TEMPEST standards for maximum protection against shock, vibration, salt fog, humidity, extreme temperatures and EMI/RFI. This highly compact system features a lightweight aluminum alloy (6061 T6) unibody for a more rugged chassis, removable battery and solidstate drives and numerous mounting options making it ideal for space-limited environments. The new form factor is a 23.5lbs, 16 inch deep, 2U rack mount to support demanding SWaP scenarios such as military aircraft, Humvees, and UUVs. High speed, low power, reduced weight and size all combine to provide industry leading secure transfer of critical mission data.

### **Key Features:**

- Compact form factor: 2U with 16 inch depth
- Operating Temperature: -30C to +50C
- Humidity: 5% to 95% (MIL-STD-810G)
- Operational Shock: 40G (MIL-STD-810G)
- Non-operational Shock: 75G
- Environmental/EMI/TEMPEST: MIL-STD-810G, DO-160, MIL-STD-461F and NSTISSAM TEMPEST/1-92
- Removable CMOS Battery and Hard Drive



Operating System Redhat Enterprise Linux Removable Drives Yes Hard Drive type 1.8 form factor Hard Drive count 6 Internal fiber connections Yes (10 Gbps)		
Electronics COTS  Max AC Power (W) 535  Form Factor 2U rack mount  H x W x D (inches) 3.47 x 19 x 16  Ruggedized/Airborne Ready Yes  Circular Military Connectors Yes  DO-160 Certification Yes  TEMPEST Certification Yes  MIL-STD-461 Yes  MIL-STD-810 Yes  Architecture x86_64  Number of domains 3  Networks per domain 4 (10/100/1000 Mbps)  CPU count Intel® Core™ i7 − 6 (Quad Core)  Operating System Redhat Enterprise Linux  Removable Drives Yes  Hard Drive type 1.8 form factor  Hard Drive count 6  Internal fiber connections Yes (10 Gbps)	Part Number	HWW-2U-3L-4
Max AC Power (W)       535         Form Factor       2U rack mount         H x W x D (inches)       3.47 x 19 x 16         Ruggedized/Airborne Ready       Yes         Circular Military Connectors       Yes         DO-160 Certification       Yes         TEMPEST Certification       Yes         MIL-STD-461       Yes         MIL-STD-810       Yes         Architecture       x86_64         Number of domains       3         Networks per domain       4 (10/100/1000 Mbps)         CPU count       Intel® Core™ i7 − 6 (Quad Core)         Operating System       Redhat Enterprise Linux         Removable Drives       Yes         Hard Drive type       1.8 form factor         Hard Drive count       6         Internal fiber connections       Yes (10 Gbps)	Chassis	Custom
Form Factor 2U rack mount  H x W x D (inches) 3.47 x 19 x 16  Ruggedized/Airborne Ready Yes  Circular Military Connectors Yes  DO-160 Certification Yes  TEMPEST Certification Yes  MIL-STD-461 Yes  MIL-STD-810 Yes  Architecture x86_64  Number of domains 3  Networks per domain 4 (10/100/1000 Mbps)  CPU count Intel® Core™ i7 − 6 (Quad Core)  Operating System Redhat Enterprise Linux  Removable Drives Yes  Hard Drive type 1.8 form factor  Hard Drive count 6  Internal fiber connections Yes (10 Gbps)	Electronics	COTS
H x W x D (inches)  Ruggedized/Airborne Ready Circular Military Connectors  DO-160 Certification Yes  TEMPEST Certification Yes  MIL-STD-461 Yes  MIL-STD-810 Architecture X86_64  Number of domains 3  Networks per domain CPU count Intel® Core™ i7 − 6 (Quad Core) Operating System Redhat Enterprise Linux Removable Drives Hard Drive type 1.8 form factor Hard Drive count Internal fiber connections Yes	Max AC Power (W)	535
Ruggedized/Airborne Ready Circular Military Connectors  DO-160 Certification Yes  TEMPEST Certification Yes  MIL-STD-461 Yes  MIL-STD-810 Architecture X86_64  Number of domains 3 Networks per domain CPU count Intel® Core™ i7 − 6 (Quad Core) Operating System Redhat Enterprise Linux Removable Drives Hard Drive type 1.8 form factor Hard Drive count Internal fiber connections Yes  10 Gbps	Form Factor	2U rack mount
Circular Military Connectors Yes  DO-160 Certification Yes  TEMPEST Certification Yes  MIL-STD-461 Yes  MIL-STD-810 Yes  Architecture x86_64  Number of domains 3  Networks per domain 4 (10/100/1000 Mbps)  CPU count Intel® Core™ i7 − 6 (Quad Core)  Operating System Redhat Enterprise Linux  Removable Drives Yes  Hard Drive type 1.8 form factor  Hard Drive count 6  Internal fiber connections Yes (10 Gbps)	H x W x D (inches)	3.47 x 19 x 16
DO-160 Certification Yes  TEMPEST Certification Yes  MIL-STD-461 Yes  MIL-STD-810 Yes  Architecture x86_64  Number of domains 3  Networks per domain 4 (10/100/1000 Mbps)  CPU count Intel® Core™ i7 − 6 (Quad Core)  Operating System Redhat Enterprise Linux  Removable Drives Yes  Hard Drive type 1.8 form factor  Hard Drive count 6  Internal fiber connections Yes (10 Gbps)	Ruggedized/Airborne Ready	Yes
TEMPEST Certification  MIL-STD-461  Yes  MIL-STD-810  Architecture  X86_64  Number of domains  Networks per domain  CPU count  Operating System  Removable Drives  Hard Drive type  Internal fiber connections  Yes  Yes  Yes  Yes  1.8 form factor  Hard Drive count  Internal fiber connections  Yes  Yes  Yes  1.9 form factor  Yes (10 Gbps)	Circular Military Connectors	Yes
MIL-STD-461  MIL-STD-810  Architecture  Architecture  Number of domains  Networks per domain  CPU count  Operating System  Removable Drives  Hard Drive type  Internal fiber connections  Yes  Yes  Yes  Internal Fiber connections  Yes  Yes  Internal Fiber connections  Yes  Internal Fiber connections  Yes  Yes  Internal Fiber connections	DO-160 Certification	Yes
MIL-STD-810  Architecture  X86_64  Number of domains  3  Networks per domain  CPU count  Operating System  Removable Drives  Hard Drive type  Internal fiber connections  Yes  Yes  Yes  Internal fiber connections  Yes  Yes  Internal fiber connections  Yes  Yes  Internal fiber connections	TEMPEST Certification	Yes
Architecture x86_64  Number of domains 3  Networks per domain 4 (10/100/1000 Mbps)  CPU count Intel® Core™ i7 − 6 (Quad Core)  Operating System Redhat Enterprise Linux  Removable Drives Yes  Hard Drive type 1.8 form factor  Hard Drive count 6  Internal fiber connections Yes (10 Gbps)	MIL-STD-461	Yes
Number of domains       3         Networks per domain       4 (10/100/1000 Mbps)         CPU count       Intel® Core™ i7 − 6 (Quad Core)         Operating System       Redhat Enterprise Linux         Removable Drives       Yes         Hard Drive type       1.8 form factor         Hard Drive count       6         Internal fiber connections       Yes (10 Gbps)	MIL-STD-810	Yes
Networks per domain       4 (10/100/1000 Mbps)         CPU count       Intel® Core™ i7 – 6 (Quad Core)         Operating System       Redhat Enterprise Linux         Removable Drives       Yes         Hard Drive type       1.8 form factor         Hard Drive count       6         Internal fiber connections       Yes (10 Gbps)	Architecture	x86_64
CPU count       Intel® Core™ i7 − 6 (Quad Core)         Operating System       Redhat Enterprise Linux         Removable Drives       Yes         Hard Drive type       1.8 form factor         Hard Drive count       6         Internal fiber connections       Yes (10 Gbps)	Number of domains	3
Operating System Redhat Enterprise Linux  Removable Drives Yes  Hard Drive type 1.8 form factor  Hard Drive count 6  Internal fiber connections Yes (10 Gbps)	Networks per domain	4 (10/100/1000 Mbps)
Removable Drives Yes Hard Drive type 1.8 form factor Hard Drive count 6 Internal fiber connections Yes (10 Gbps)	CPU count	Intel® Core™ i7 – 6 (Quad Core)
Hard Drive type 1.8 form factor Hard Drive count 6 Internal fiber connections Yes (10 Gbps)	Operating System	Redhat Enterprise Linux
Hard Drive count 6 Internal fiber connections Yes (10 Gbps)	Removable Drives	Yes
Internal fiber connections Yes (10 Gbps)	Hard Drive type	1.8 form factor
` ' '	Hard Drive count	6
Management interface Video Graphics Array (VGA),	Internal fiber connections	Yes (10 Gbps)
Serial, Ethernet	Management interface	Video Graphics Array (VGA), Serial, Ethernet
PL-support 3, 4 or 5	PL-support	3, 4 or 5
Protocol Support Same as enterprise. Available upon request	Protocol Support	·
Remote Tasking Yes	Remote Tasking	Yes
SELinux Yes	SELinux	Yes