

# Protectli Appliance

## Protectli Vault 4 Port - Intel® J3160 (FW4B)

January 3, 2023

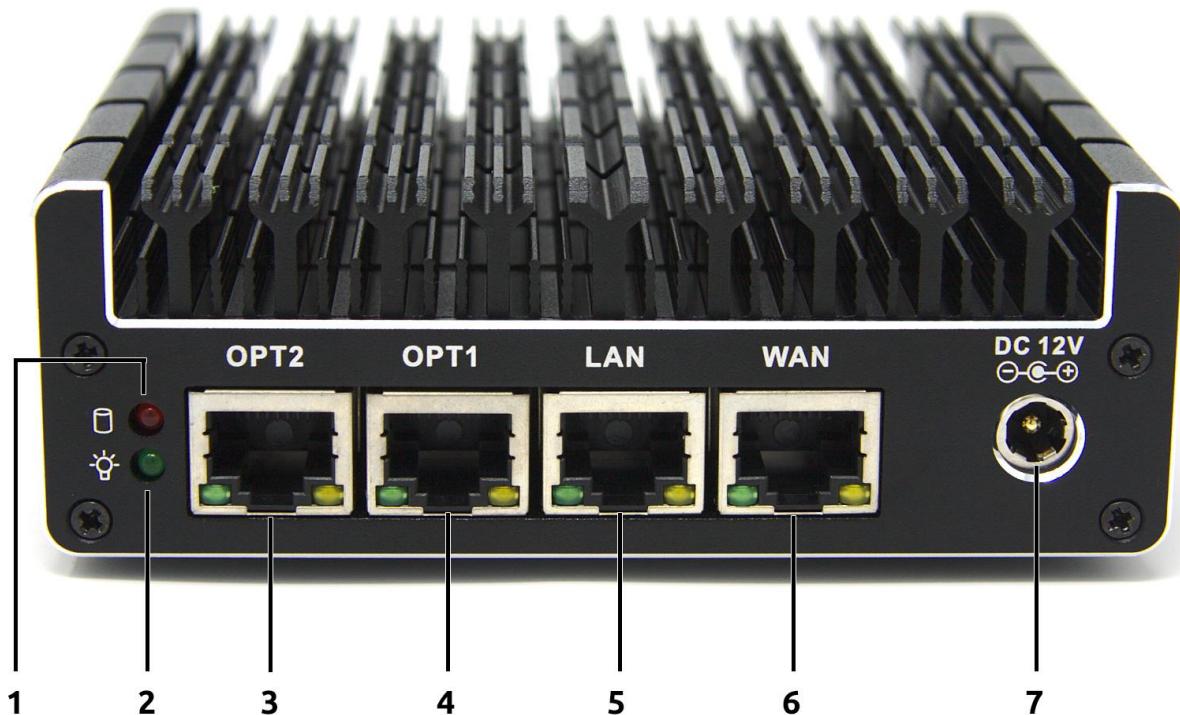
# Specifications

<b>Model</b>	FW4B
<b>Description</b>	4X 1G Network Port Fanless Appliance
<b>Processor</b>	Intel J3160 (64 Bit, 1.6 GHz, Turbo 2.24 GHz, 2MB L2 Cache)
<b>Processor Cores</b>	4
<b>Processor Threads</b>	4
<b>Intel AES-NI</b>	Supported
<b>Virtualization</b>	Intel VT-x
<b>Network</b>	4x Intel 1G Ethernet, RJ-45
<b>Video / Graphics</b>	Intel Clear Video HD, 2x HDMI 1.4
<b>Audio</b>	Audio over HDMI, 1x 3.5mm Audio Jack
<b>Memory</b>	1x SO-DIMM DDR3L-1600, 1.35v, Max 8GB
<b>Storage</b>	1x mSATA
<b>Optional Storage</b>	1x Internal 2.5" SATA 3.0 SSD
<b>External I/O</b>	4x RJ-45 Ethernet 2x USB 3.0 Type A, 2x USB 2.0 Type A 2x HDMI 1x 3.5mm Audio Jack 1x RJ-45 COM 2x WiFi/LTE Antenna Mounting Holes 1x 12V DC Power Jack
<b>Internal I/O</b>	1x Mini PCIe for mSATA 1x SATA, 1x SATA Power 1x Full Height mPCIe (USB) for WiFi or LTE 1x USB 2.0 Header 1x CMOS Reset (2 pin) 1x CPU Fan Header (4 pin) 1x Front Panel Header (9 pin)
<b>BIOS</b>	AMI or coreboot
<b>Indicators</b>	1x LED Power Button (Blue), 1x LED Power Indicator (Green), 1x LED Disk Activity Indicator (Red), 1x LED Disk Activity Indicator (Yellow)
<b>Power</b>	Input 12V DC, 1x DC Power Jack

<b>Power Usage</b>	Max 20W
<b>Chassis</b>	Fanless, Aluminum, Black
<b>Chassis Dimensions</b>	4.5 x 4.3 x 1.5 in, 115 x 107.5 x 39 mm
<b>Mounting Options</b>	Desktop, VESA Bracket, Optional 1RU Rack Mount
<b>Weight</b>	1.1 lbs, .50 Kg
<b>Shipping Weight</b>	2.8 lbs, 1.2 Kg
<b>Operating Temperature</b>	+14° - +122° F, -10° - +50° C
<b>Operating Humidity</b>	0 – 95% relative humidity, non-condensing
<b>Approvals</b>	UL (Power Supply), FCC Part 15 Class B, CE, RCM, RoHS
<b>Country of Origin</b>	Made in China, Assembled in USA
<b>Optional WiFi</b>	1x mPCIe 802.11b/g/n (USB)
<b>Optional LTE Cellular</b>	1x mPCIe 4G LTE (USB)

# System Features

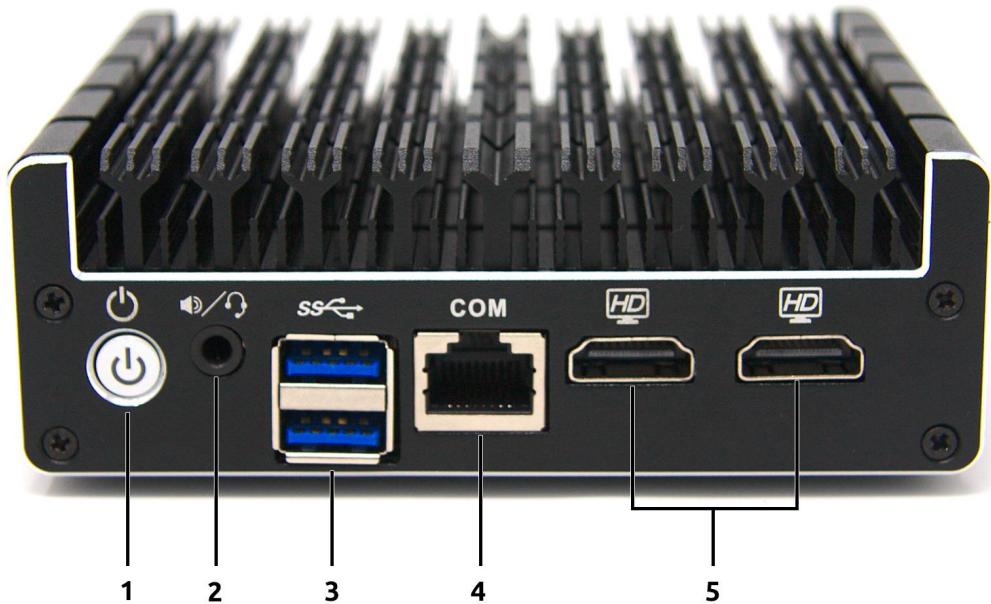
## Front Features



Item #	Object	Description
1	HDD Activity LED	This red LED will light up when data activity is detected on either the mSATA or SATA interfaces.
2	Power Indicator LED	This LED will stay solid green when the device is powered on.
3	Ethernet Port 4	The fourth 10/100/1000 Mbps Intel® i211 ethernet port.
4	Ethernet Port 3	The third 10/100/1000 Mbps Intel® i211 ethernet port.
5	Ethernet Port 2	The second 10/100/1000 Mbps Intel® i211 ethernet port. This port is labeled "LAN" for convenience, but is not limited in its capacity.

6	Ethernet Port 1	The first 10/100/1000 Mbps Intel® i211 ethernet port. This port is labeled "WAN" for convenience, but is not limited in its capacity.
7	Power Supply Connector	12V DC barrel connector for the 40W external power supply. Positive rail is the tip, negative is sleeve.

## Rear Features



Item #	Object	Description
1	Power Button	Pressing the Power Button will power the unit on and illuminate with a blue LED.  <i>In OSes configured to handle ACPI signals, pressing the power button initiates a shutdown.</i>  <i>Pressing and holding the Power Button for 5 seconds will force the unit to power off.</i>
2	Speaker and Microphone Port	A 3.5mm TRRS plug can be used to output stereo sound and input mono microphone.
3	Two USB3 Connectors	USB 3.0 Type-A connectors.

4	Serial Console Port	RS232 serial communications via RJ-45. Default port settings: <ul style="list-style-type: none"><li>• 115200 baud</li><li>• No parity</li><li>• 8 databits</li><li>• 1 stopbit</li></ul>
5	Two HDMI Connectors	Dual video and audio output via HDMI.

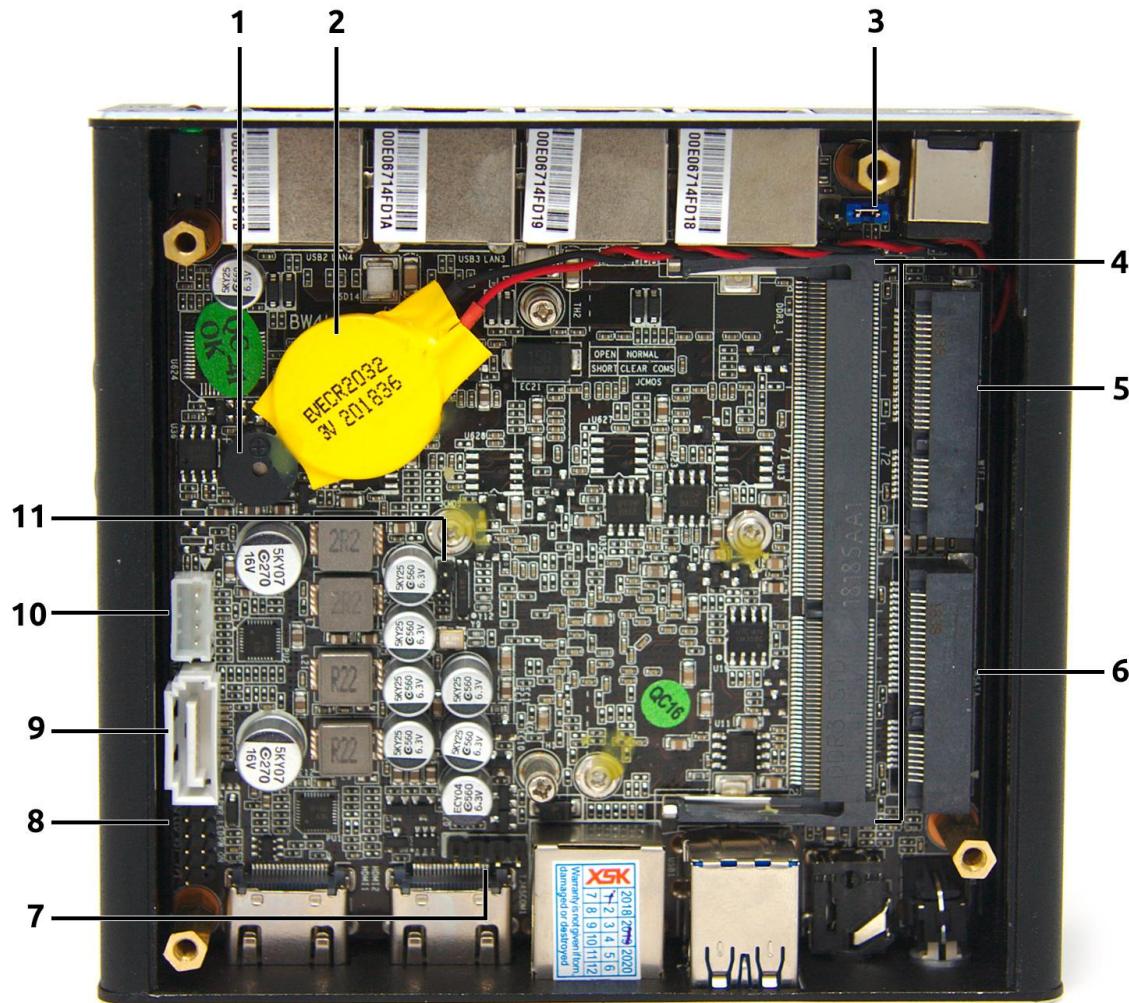
## Left Features

Item #	Object	Description
1	Antenna Ports	Two antenna ports for adding radio antennas (WiFi, LTE, etc.). The ports are covered by plugs while not in use.

## Right Features

Item #	Object	Description
1	Security Slot	A security slot allows for a physical security cable lock or similar devices.

## Motherboard Top View



Item #	Object	Label	Description
1	Buzzer		PC Speaker.
2	CMOS Battery		3V CR2032 connected via 2-pin connector on the opposite side of the motherboard.
3	Power Restore Jumper	JPWR	Jumper setting determines system state after power loss. Closing the jumper will cause the unit to automatically power on when power is restored after an outage.
4	Memory Slot	DDR3_1	DDR3 SODIMM.

5	Wireless Expansion Slot	WIFI	Connector uses USB protocol over an mPCI connector. Designed for Protectli WiFi and LTE modems, but is not limited in its capabilities.
6	mSATA Connector	MSATA	Connector for an mSATA storage device, such as an SSD.
7	USB 2.0 Header	FUSB2	Internal header for additional USB 2.0 connections.
8	Front Panel Header		Internal header for adding external device controls and indicators featured through the front panel, such as power button, reset button, activity LEDs, etc.
9	SATA Data Connector	SATADATA	SATA III data connector. Recommended for additional storage, such as a 2.5" SATA SSD.
10	SATA Power Connector	SATAPWR	SATA power connector for additional storage.
11	NVRAM Reset Jumper	JCMOS	Shorting this jumper while the CMOS battery is connected will reset the BIOS NVRAM.

## Isometric View

