

# Protectli Appliance

## Protectli Vault FW6E 6 Port - Intel® i7-10810U

June 28, 2024

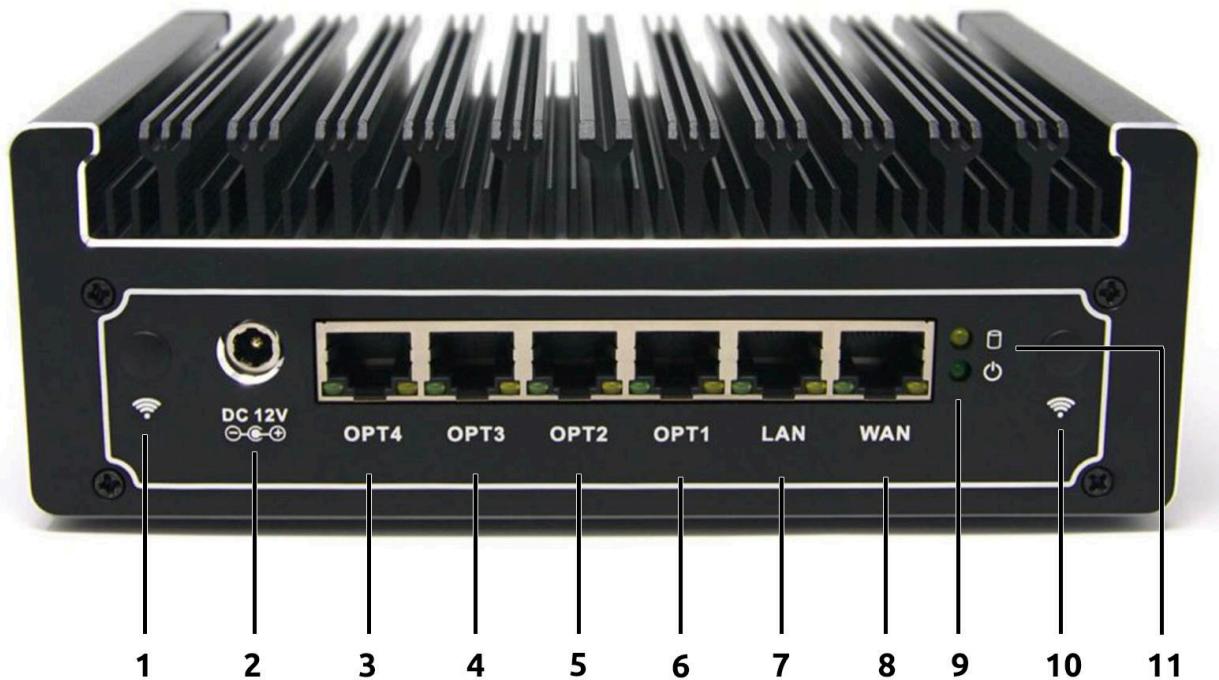
# Specifications

<b>Model</b>	FW6E
<b>Description</b>	6X 1G Network Port Fanless Appliance
<b>Processor</b>	Intel i7-8550U (64 Bit, 1.8GHz base, 4GHz Turbo, 8MB Smart Cache)
<b>Processor Cores</b>	4
<b>Processor Threads</b>	8
<b>Intel AES-NI</b>	Supported
<b>Virtualization</b>	Intel Vt-x, Vt-d
<b>Network</b>	6x Intel 1G Ethernet, RJ-45
<b>Video / Graphics</b>	Intel UHD Graphics 620, 1x HDMI 1.4
<b>Audio</b>	Audio over HDMI
<b>Memory</b>	2x SO-DIMM DDR4-2400 1.2v, Dual Channel , Max 64GB
<b>Storage</b>	1x mSATA
<b>Optional Storage</b>	1x Internal 2.5" SATA 3.0 SSD
<b>External I/O</b>	6x RJ-45 Ethernet 4x USB 3.2 Gen 2 Type A 1x HDMI 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 Header, 1x SATA Power 1x Half Height mPCIe (USB 3.2 Gen 2/PCIe 3.0) for WiFi 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>	Idle: 20W: Max: 80W

<b>Chassis</b>	Fanless, Aluminum, Black
<b>Chassis Dimensions</b>	7.25 x 5 x 2.5 in, 184 x 127 x 63.5 mm
<b>Mounting Options</b>	Desktop, VESA Bracket, Optional 1RU Rack Mount
<b>Weight</b>	3 lbs, 1.36 Kg
<b>Shipping Weight</b>	5 lbs 2 oz, 2.32 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, RoHS
<b>Country of Origin</b>	Made in China, Assembled in USA, Canada, or Germany
<b>Optional WiFi</b>	1x Half Height mPCIe 802.11b/g/n (USB) or 802.11ac/a/b/g/n (PCIe)

# System Features

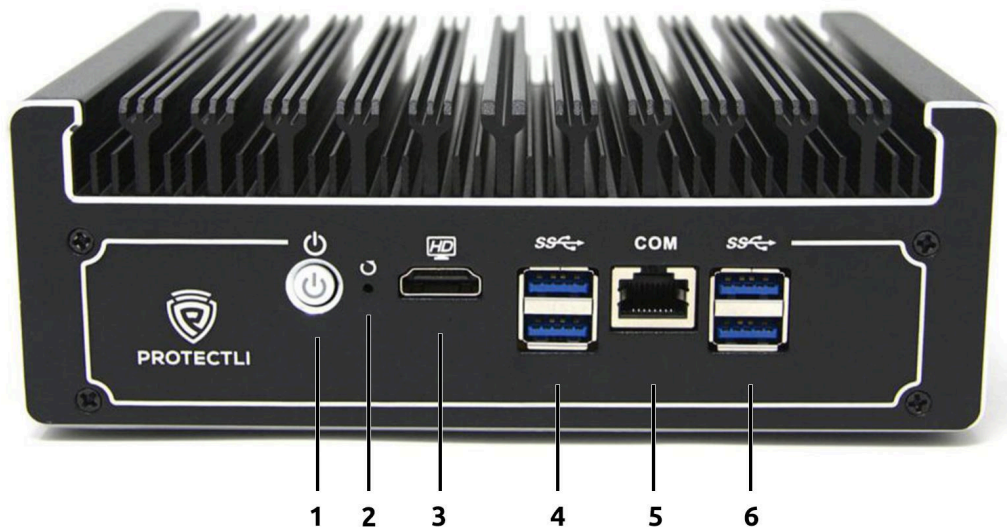
## Front Features



Item #	Object	Description
1, 10	Antenna Ports	Two antenna ports for adding radio antennas (WiFi, LTE, etc.). The ports are covered by plugs while not in use.
2	Power Supply Connector	12V DC barrel connector for the 60W external power supply. Positive rail is the tip, negative is sleeve.
3	Ethernet Port 6	The sixth 10/100/1000 Mbps Intel® i211 ethernet port. This port is labeled "OPT4" for convenience, but is not limited in its capacity.
4	Ethernet Port 5	The fifth 10/100/1000 Mbps Intel® i211 ethernet port. This port is labeled "OPT3" for convenience, but is not limited in its capacity.

5	Ethernet Port 4	The fourth 10/100/1000 Mbps Intel® i211 ethernet port. This port is labeled “OPT2” for convenience, but is not limited in its capacity.
6	Ethernet Port 3	The third 10/100/1000 Mbps Intel® i211 ethernet port. This port is labeled “OPT1” for convenience, but is not limited in its capacity.
7	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.
8	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.
9	Power Indicator LED	This LED will stay solid green when the device is powered on.
10	HDD Activity LED	This amber LED will light up when data activity is detected on either the mSATA or SATA interfaces.

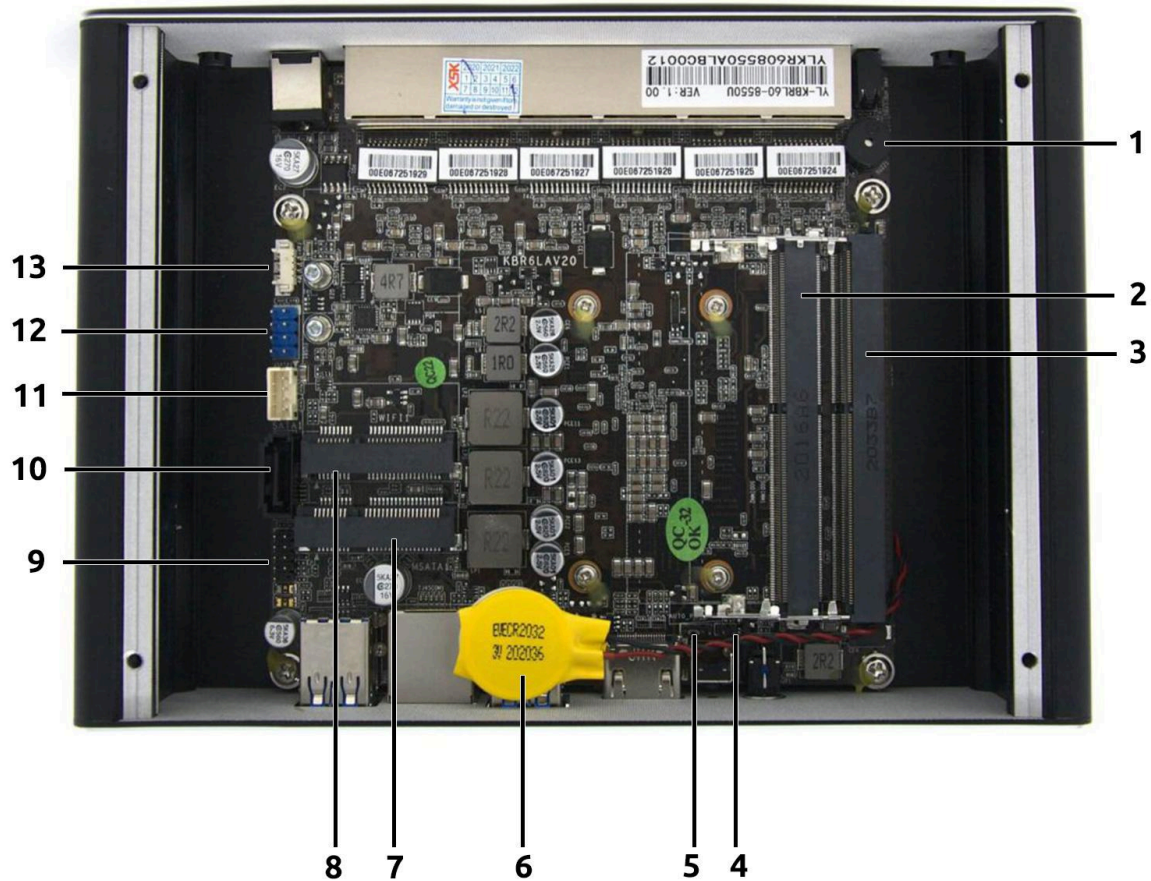
## Rear Features



Item #	Object	Description
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1	Power Button	<p>Pressing the Power Button will power the unit on and illuminate with a blue LED.</p> <p><i>In OSes configured to handle ACPI signals, pressing the power button initiates a shutdown.</i></p> <p><i>Pressing and holding the Power Button for 5 seconds will force the unit to power off.</i></p>
2	Reset Button (Recessed)	<p>A momentary switch exposed via GPIO. <i>This is not an ACPI reset button, but a general purpose button that may be programmed in the guest OS.</i></p>
3	HDMI Connector	Video and audio output via HDMI.
4, 6	USB3 Connectors	USB 3.2 Gen 2 Type-A connectors.
5	Serial Console Port	<p>RS232 serial communications via RJ-45. Default port settings:</p> <ul style="list-style-type: none"> <li>● 115200 baud</li> <li>● No parity</li> <li>● 8 databits</li> <li>● 1 stopbit</li> </ul>

## Motherboard Top View



Item #	Object	Label	Description
1	Buzzer	BUZZ1	PC Speaker
2	Memory Slot	SODIMM1	DDR4LP SODIMM.
3	Memory Slot	SODIMM2	DDR4LP SODIMM.
4	NVRAM Reset Jumper	JCMOS	Shorting this jumper while the CMOS battery is connected will reset the BIOS NVRAM.
5	Power Restore Jumper	AUTO_P	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.
6	CMOS Battery		3V CR2032 connected via 2-pin connector on the opposite side of the motherboard.
7	mSATA Connector	MSATA1	Connector for an mSATA storage device, such as an SSD.
8	WiFi Expansion Slot	WIFI1	Connector uses USB protocol over an mPCI connector. Designed for Protectli WiFi and LTE modems, but is not limited in its capabilities.
9	Front Panel Header	FP1	Internal header for adding external device controls and indicators featured through the front panel, such as power button, reset button, activity LEDs, etc.
10	SATA Data Connector	SATA1	SATA III data connector. Recommended for additional storage, such as a 2.5" SATA SSD.
11	SATA Power Connector	JSATA1	SATA power connector for additional storage.
12	USB 3.2 Header	FUSB1	Internal header for additional USB 3.2 Gen 2 connections.
13	Fan Header	CPU_FAN1	Four-pin PicoBlade-compatible header for optional PWM CPU fan.

## Measurement View





# Document History

2024-06-28

- Clarified PCI and USB specifications such as speed, protocol, etc.

2024-05-09

- Clarified LTE and/or WiFi slot naming schemes

2023-03-21

- Initial document.