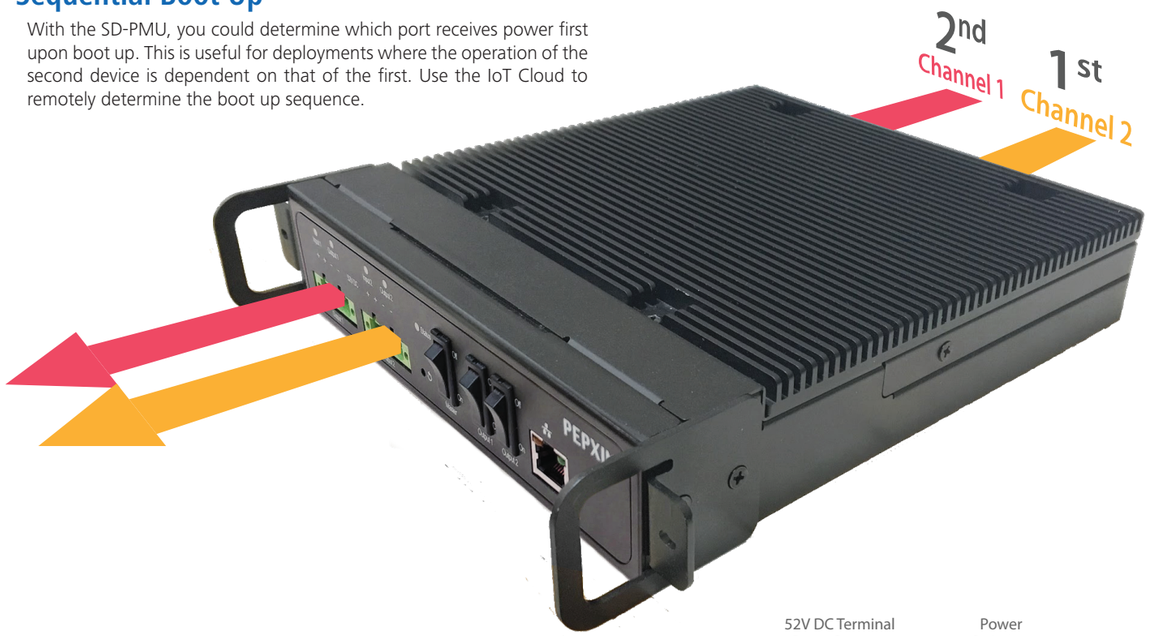
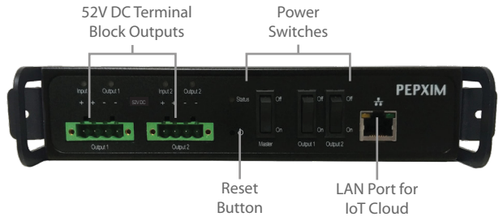
Sequential Boot Up

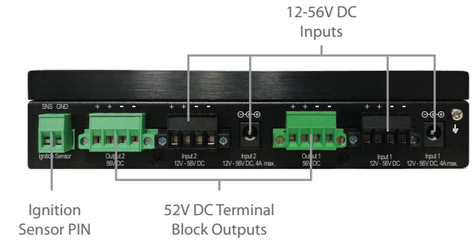
With the SD-PMU, you could determine which port receives power first upon boot up. This is useful for deployments where the operation of the second device is dependent on that of the first. Use the IoT Cloud to remotely determine the boot up sequence.



Specifications

	SD Power Management Unit
Product Code	PMU-DD-52V-400W
Power Input	2x Terminal Blocks, 2x DC Jack 12-56V DC
Power Output	4x Terminal Blocks: 52V DC
Stabilized Power	400W
Ethernet Port	1x port for IoT Cloud access
Enclosure	Indoor Metal
Dimensions	7.4 x 8.1 x 1.6 inches 187 x 205 x 41 mm
Weight	4.4 pounds 2 kg
Operating Temperature	-4° – 131°F -20° – 55°C
Humidity	15% – 95% (non-condensing)
Certifications	FCC, CE, RoHS, Rolling Stock
Warranty	1-Year Limited Warranty





Product Ordering Information

Product Code	Product Name	Description
PMU-DD-52V-400W	Software-Defined Power Management Unit	Software-Defined Power Management Unit, 2x terminal block inputs, 4x terminal block outputs. Cloud Functionality.

Product Code	Description
ACW-741	Mounting rack, mounting ears and screws

www.peplink.com

SD-PMU

Software-Defined Power Management Unit

PEPXIM

Whether enabling free Wi-Fi for buses, or maintaining surveillance on maritime deployments, you need to rely on battery power. Any battery-powered deployments will face the following challenges:

Voltage Fluctuation

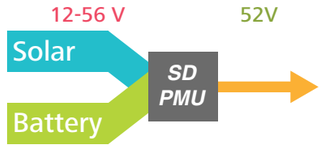
Battery power does not provide stable voltage, this could make devices function unreliably or shut down altogether.

Inability to Troubleshoot

In the event that devices lose power, there is no information on how the battery has been performing up to that point.

Battery Drainage

If batteries are excessively drained, they will be unable to start up the vehicle. Overdraining batteries will also damage them.



Voltage Regulation

The SD-PMU can take power from sources with low or fluctuating voltage and turn them into a reliable streams of 52V power. Each device can support 2 power inputs and 4 power outputs.

Remote Voltage Monitoring

The SD-PMU records battery voltage information and sends it over the IoT Cloud for remote monitoring. In case the SD-PMU cannot reach the IoT Cloud, it will locally store voltage records until it can upload the data.

Voltage Sensing Capabilities

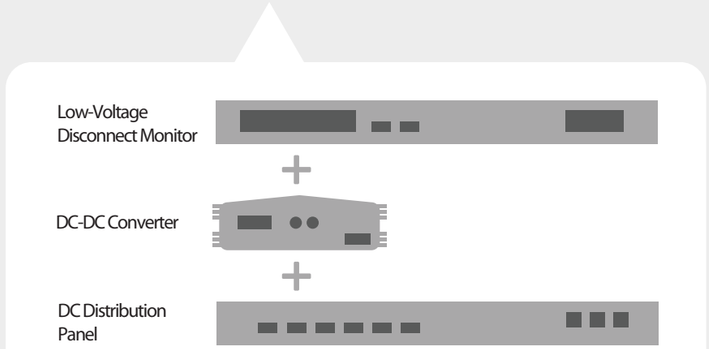
The Low Voltage Disconnect function shuts off access to the battery if the voltage level falls below a defined threshold. The Ignition Sense function shuts off power to connected devices when the vehicle ignition is turned off.

3 Devices in 1

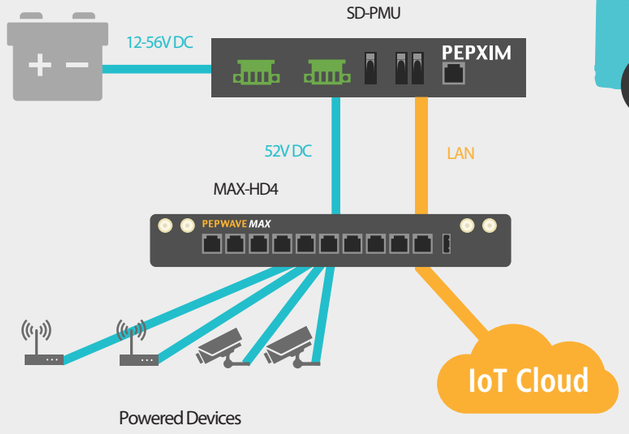
The SD-PMU can reduce setup costs, operational complexity, and maintenance expenses by performing the functions of three devices: a low-voltage disconnect monitor, a DC-DC converter, and a DC distribution panel.

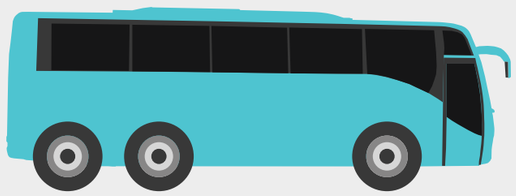
Rather than installing three enclosures and connecting them through cables, installation now simply involves connecting the batteries and an Ethernet connecion to the SD-PMU.

This results in significantly reduced network complexity, smaller footprint, and greater network resilience.



Vehicle Deployment





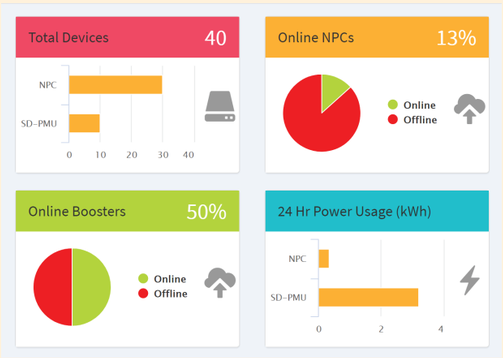
Connect the SD-PMU to your car battery to deliver reliable 52V power. Connect the LAN port to your router in order to remotely monitor battery output via the IoT Cloud. With 52V power delivery, the SD-PMU can support switches with 802.3at PoE output.

PEPXIM IoT Cloud

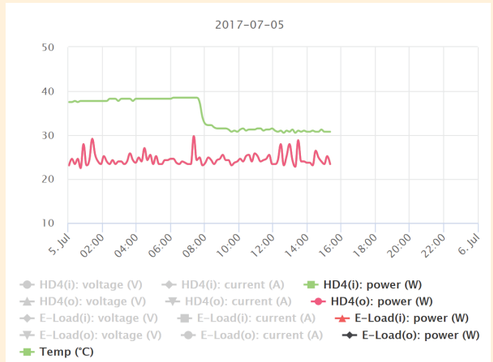
Remote Troubleshooting

The Pepxim IoT cloud provides a number of tools for remote troubleshooting. On the network level, the dashboard displays the connectivity status and power usage of all your devices on a single screen. On the individual device level, the Pepxim IoT cloud stores comprehensive information on the voltage, wattage, and current of each port, as well as device temperature. This view contains historical data from months ago, making troubleshooting significantly easier. The real-time monitor updates every 5 seconds, enabling instant feedback on any network changes.

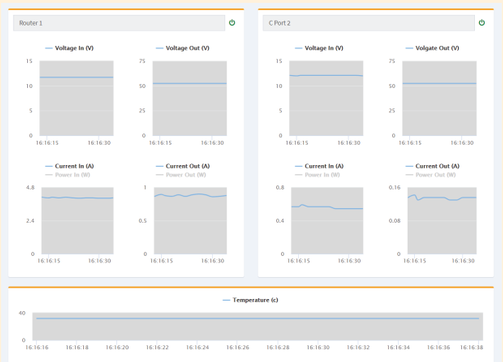
Network Dashboard View



Voltage, Wattage, Current, and Temperature History



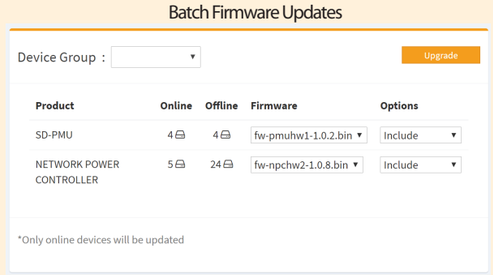
Realtime Monitor - Updates every 5 Seconds



Batch Management

The Pepxim IoT Cloud enables you to perform configuration that would otherwise require a trip onsite. From any web browser, you can set voltage, current, and temperature thresholds. If a threshold is reached, the port or device will shutdown. In addition, the IoT cloud also enables you to configure and schedule firmware updates for your Pepxim devices. You can make these configurations upon multiple devices simultaneously, saving significant time.

Batch Firmware Updates



Shutdown on Voltage, Current, or Temperature Threshold