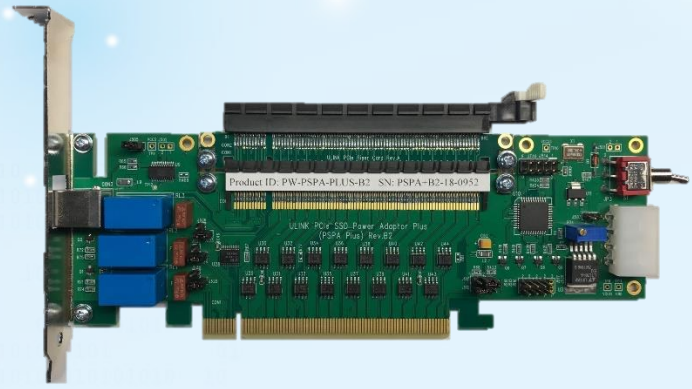
ULINK PCIe-SSD Power Adapter Series

■ PCIe-SSD Power Adapter Plus (PSPA Plus) Series



PSPA Plus PCIe, PSPA Plus M.2 and PSPA Plus M.3 are PCIe adapters which allow users to control the power supply to the DUT and hot plug without turning off the system power. These adapters support the following features:

1. Hardware switch and USB controller to turn device on and off
2. All data signals (PETp0, PETn0, PERp0, PERn0 … PETp3, PETn3, PERp3, PERn3) and auxiliary signals (SMCLK, SMDAT…) are isolated from PCIe system bus
3. Pluggable fuses to protect PCIe power supply
4. LED display to show the board status
5. PSPA Plus board has power current/voltage measurement and power voltage adjustment features
6. Support internal power mode and external power mode
7. **PCIe PERST#**

■ PSPA Plus M.2

PSPA Plus M.2 adapter support direct M.2 connection to the DUT. It can be used to test NVMe Emergency Power Fail handling. It supports the following additional features:

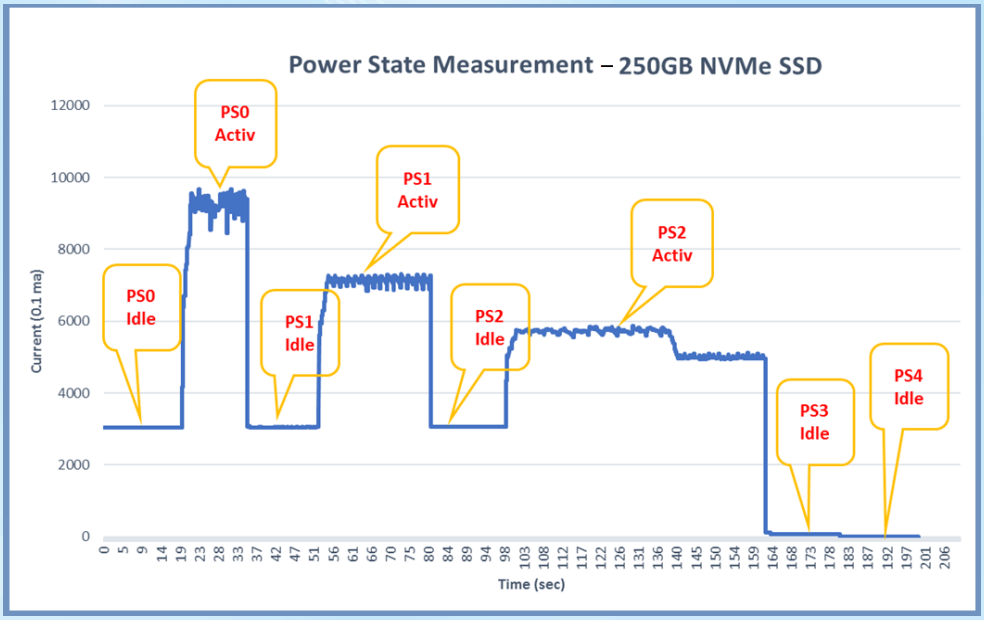
1. Standard PCIe M.2 NVMe SSD interface
2. 3.3V as main power source and AUX power
3. PCIe CLKREQ# signal for L1.2 low power test
4. **PLN# (Power Loss Notification)**
5. **PLA# (Power Loss Acknowledge)**
6. 2230, 2242, 2260, 2280 and 22110

■ PSPA Plus M.3

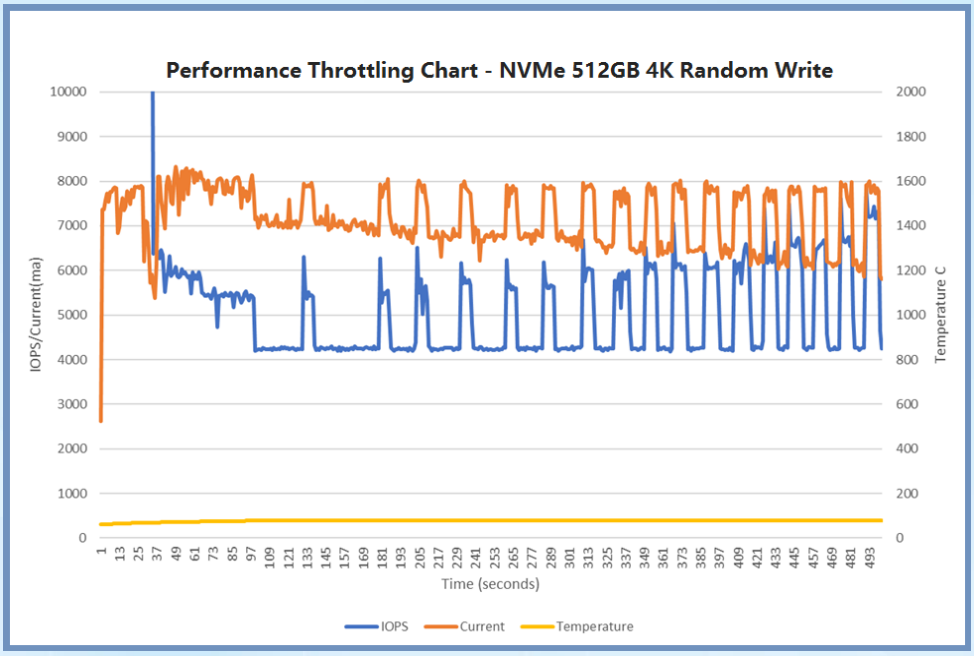
PSPA Plus M.3 adapter supports the enterprise NGSFF PCIe SSD form factor. It supports the following additional features:

1. Standard PCIe M.3 NVMe SSD interface
2. 12V as the main power source, 3.3V AUX power
3. **PLN# (Power Loss Notification)**
4. **PWDIS# (Power Disable)**
5. **DualPortEn# (Dual Port Enable)**
6. M.3 dimension: 30.5 mm x 110 mm x 4.38 mm

PSPA Plus Applications



This chart plots the power consumption for the power states supported by an NMVe device. The measurement is based on the NVMe specification. With the same workload, Power State 0 consumes the highest power and takes the shortest time to complete.



This chart displays the influence of performance on the device temperature. In about 100 seconds, the temperature reaches the threshold (77 degree C) and the current/IOPS starts to throttle to keep the temperature from rising higher.