CHEETAH V5 RACK MOUNT EXTENDER FRAME

PESA's optional rack mount extender frames allow you to easily mount and power up to four Cheetah V5 modules in a 1 RU chassis frame. Power for all V5 modules is derived from a removable power distribution/fan module. Pigtail type power cables are used to supply power to each unit from the distribution module.

As shown in Figures 1 and 2, V5 modules are installed from the rear of the chassis and secured using the captive thumbscrews on the front of the chassis. It is easier, though certainly not a requirement, to install modules into the extender frame chassis before mounting the frame in the equipment rack. Install modules as follows:

- Slide each V5 module into the desired mounting slot of the extender frame as shown in Figure 1.
- Install the power distribution module into the center slot of the frame.
- Secure all modules by tightening the captive thumb screw on the front of the frame as shown in Figure 2.
- Install a power pigtail cable between any of the four power output connectors and the input power connector on each V5 module as shown in Figures 1 and 3.
- Mount the extender frame in an equipment rack at this time, if you chose to install the modules with the extender frame out of the rack.
- Ensure at least 50% of the open air space on either side of the extender frame is free of cables or any other obstructions that may restrict air flow.
- Connect the power output lead from the external 12VDC power supply to either of the main power input connectors on the distribution module as shown in Figure 3.
- If using a second, redundant, external power supply connect the lead from the redundant supply to the unused power input connector.
- Do not connect the external power supply(s) to a source of primary power until connections to the V5 modules are completed.

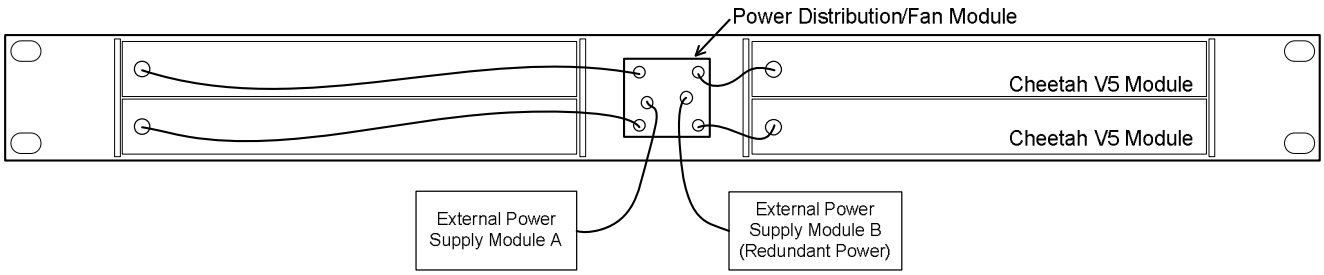

Figure 1. Extender Frame Rear View

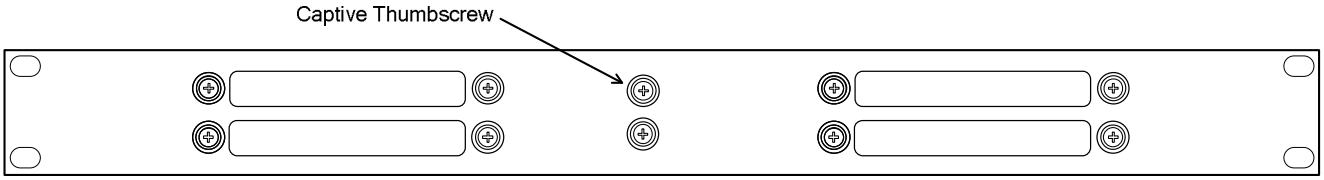

Figure 2. Extender Frame Front View

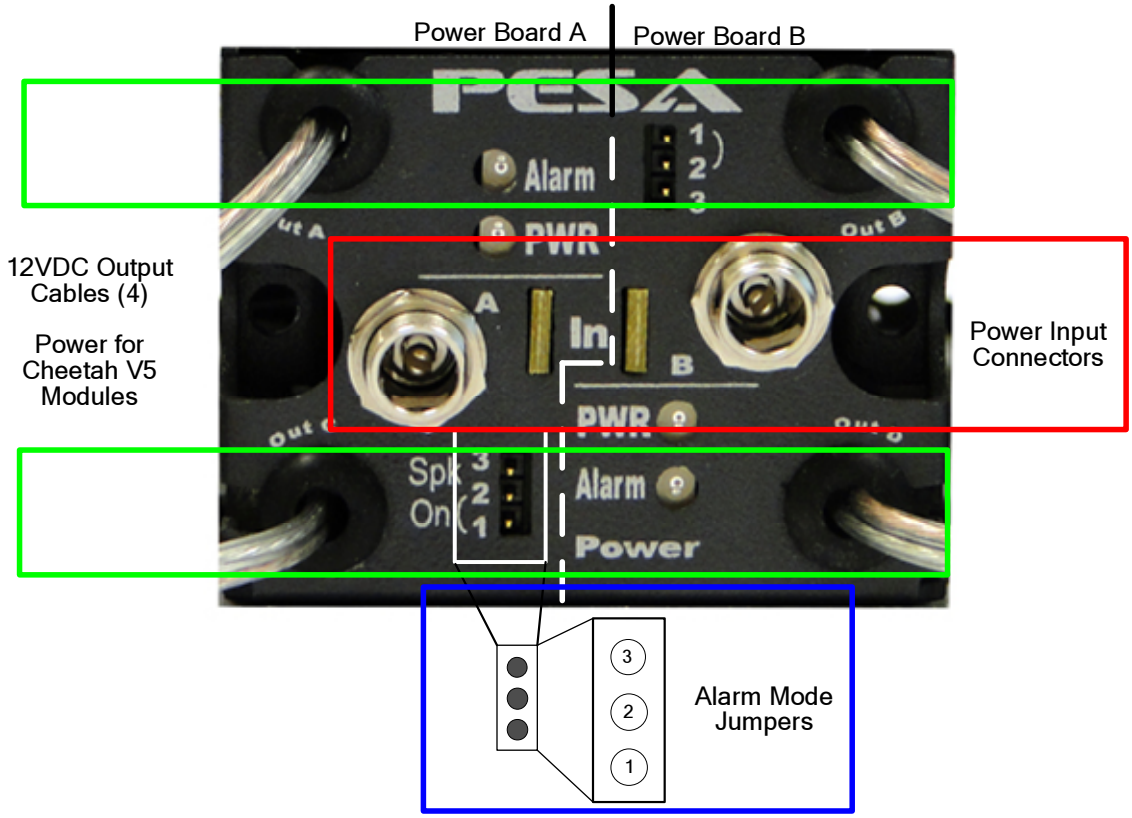

Figure 3. Power Distribution Module

1.1 POWER DISTRIBUTION/FAN MODULE REDUNDANT POWER, ALARMS AND LEDS

As shown by Figure 3, there are two power input connectors – one for connection to the main external power supply, and the second for connection to a second external power "brick" for automatic power redundancy. One external power supply connected to either of the power input connectors can supply power for up to four V5 modules. While some load sharing may occur when a redundant power supply is used, the second supply, if connected, serves as a self-switching back-up power supply in the event the main supply should ever fail.

The power distribution module contains two circuit boards each with one input power connector, two output power connectors, status monitor LEDs and alarm mode select pins. In Figure 3, these are identified as Power Board A and Power Board B. Even though the input power connector, status LEDs and alarm jumpers are specific to board 1 or 2, all four output connectors are always powered and monitored for loss of output.

There are two status LEDs on each board identified as Alarm and Power (PWR). When power from an external supply is attached to either of the input connectors the PWR LED associated with the board lights as an indication that power is present. The ALARM LED indicates one of two possible error conditions is occurring with the distribution module:

- There is a failure with one or both of the cooling fans
- There is a failure of at least one of the power output connections

In addition to the visual alarm LED, there is an audible alarm in the module that can be activated or deactivated for either or both power boards through the jumper pins on the rear panel. Power distribution modules are shipped from the factory with the jumper removed, and the audible alarm disabled. Connect the jumper as shown in Figure 4 for the desired audible alarm function:

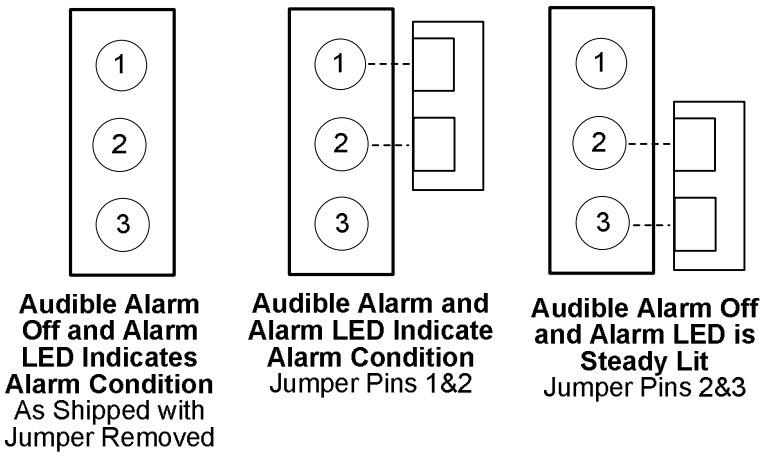

Figure 4. Audible Alarm Jumper Settings