

VPX Signal Functions

ENABLE*	Turns off all of the output voltages when it is high. This includes the 3.3V_AUX output. The ENABLE* is pulled low by using a mechanical switch, which connects it to SIGNAL_RE-TURN. A logic output can also be used to drive the ENABLE*. Opening the switch turns off all the outputs, closing the switch or applying the logic output would enable the outputs to come on depending on the state of INHIBIT*. An input of <0.8Vdc is regarded as a low and an input of >2.0Vdc is regarded as high. Regards a no-connect as a high. This signal along with the INHIBIT* signal determines the output power status of the power supply. Reference table shown below.
INHIBIT*	Turns off all of the output voltages, except in most cases were it is expected to leave the 3.3V_AUX output on. Pulling INHIBIT* low turns off the VS1, VS2, VS3 & ±12V_Aux outputs. An input of <0.8Vdc is regarded as a low and an input of >2.0Vdc is regarded as a high. Regards a no-connect as a high. This signal along with the ENABLE* signal determines the output power status of the power supply. Reference table shown below.
SYSRESET*	System Reset (SYSRESET*) is an active low open-collector line which is driven by the power monitor module. SYSRESET* ensures a clean, stabilized startup, based on monitoring the output voltage levels in accordance of VITA 62.
FAIL*	Indicates failure when any of the outputs are not within specification. This signal complies with VITA 65 for active low. Fail signal is open drain. It is expected that there will be a pull-up resistor on the backplane.
NED	Indicates to other modules that a nuclear event has been detected. The power supply accepts an input from an external NED device and crowbars all outputs upon detection.
VBAT	VBAT provides a low power +3.3Vdc @ 1A output to other plug-in modules. The intent is to supply power to low current devices such as real time clocks when the other outputs are shutoff. While it is connected internally to the +3.3Vdc_Aux output, it provides a separate line, dedicated to low power needs and it has its own separate overcurrent protection. It is controlled along with the +3.3Vdc_Aux output through the power status. Reference table shown below.
Geographical Addressing	As defined in the VITA 62 Standard.
Protocol (I²C)	As per VITA 62 System Management Bus.

Power Status

Control Input States		Power Output States	
ENABLE	INHIBIT	+3.3V_AUX	VS1, VS2, VS3, +12V_AUX & -12V_AUX
High	High	Off	Off
High	Low	Off	Off
Low	High	On	On
Low	Low	On	Off



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