

Application Note

Connecting the power sources

SMB-Series

Optical Phase-Locked Loop Modules

Overview

The SMB-Series modules are designed to operate from several DC power supplies. Each module has two 50-pin stack-through headers acting as a power bus when several boards are stacked. While the SMB00 module is recommended to connect the supply sources to the bus, the alternative way to power the stack is described.

Powering SMB-Series modules without the SMB00 board

The SMB-Series modules – single board or stacked – should be powered as illustrated in Fig.1. The return paths must be tied together in a single point and connected to the chassis-earth wire through an AC-grounding capacitor. To avoid large voltages between the chassis and the system grounds, a varistor rated at 48 V is required. Mechanics and the return path of the +5 V source referenced to chassis must be wired to the earth. The Table 1 gives the pin assignments of the 50-pin headers that have to be powered. Depending of the module in use, some power supplies can be omitted, refer to the respective datasheet for more information about the required power sources.

Power input	Connector.pin number
+5 V source	DIO.47 & DIO.48
+5 V return	DIO.49 & DIO.50
+5 V chassis source	DIO.2
+5 V chassis return	DIO.1
+24 V source	AIO.41
+24 V return	AIO.43
+15 V source	AIO.47
-15 V source	AIO.45
15 V return	AIO.49
Chassis	AIO.2

Table 1: Power pin assignment of SMB-Series modules.

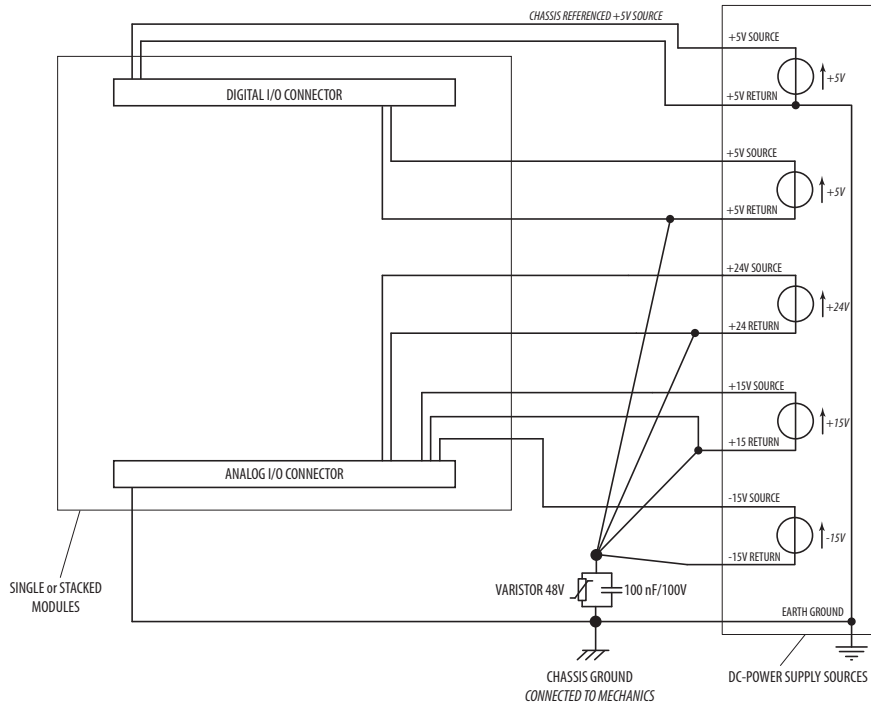


Figure 1: Connecting power without SMB00 module.

Document Revision History

Release	Comments
SMB-SN01-R15A	first release

Notice

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