



BIAS-2-14/70 is a portable, adjustable and precise voltage supply for silicon photomultipliers (SiPMs) and other semiconductor detectors. It contains two independent voltage output ports with voltage ranging from 14 V to 70 V, which matches most SiPMs on the market.

Features and Applications

- ◆ Wide output voltage range from 14 V to 70 V
- ◆ High precision of approximately 100 mV
- ◆ Driving SiPMs and other semiconductor detectors
- ◆ Output controlled via UART
- ◆ Two independent voltage output ports
- ◆ Input voltage through mini-USB

Specifications

Parameter	Value	Test Condition
Supply Voltage (V_s)	+5 V	USB supply
Current consumption (I_{cc})	53 mA	$V_o = 35$ V, no load
Output voltage (V_o)	A : 14 ~ 62 V ; B : 26 ~ 70 V	No load
Max. output current ^{*1} ($I_{o\ max}$)	0.5 mA	—
Output voltage resolution	100 mV	No load
Ripple noise (V_n)	5.2 mVp-p	$V_o = 35$ V, no load

Above parameters are measured at 20 °C.

*1: Output automatically turn off if exceed the maximum output current.

Control command^{*2}

Command	Function	Command	Function
TA / TB	Turn on voltage output port A/B	WA / WB	Set output voltage of port A/B
SA / SB	Turn off voltage output port A/B	RA	Read output voltage value of port A /B

*2: Set serial port baud rate to 9600 bps, 8 data bits and 1 stop bit. Every command should end with return and linefeed character (CRLF, 0x0D0A). BIAS-2-14/70 will save the parameter you set last time and load these parameters when supply voltage on automatically. The serial port driver can be downloaded from:

<https://www.silabs.com/products/development-tools/software/usb-to-uart-bridge-vcp-drivers>

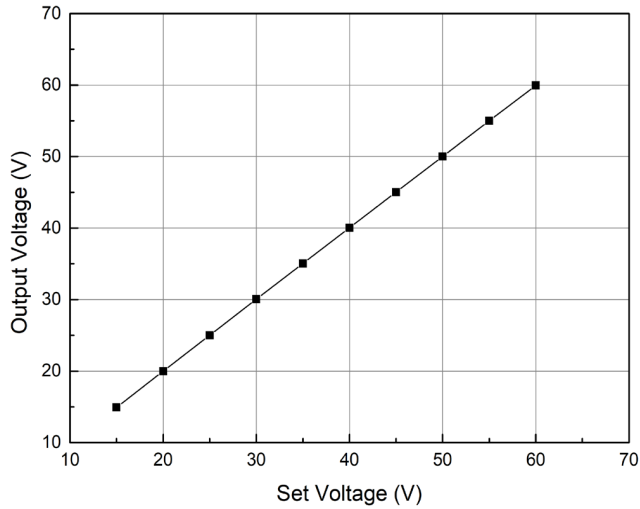
BIAS-2-14/70

Specifications subject to change without notice

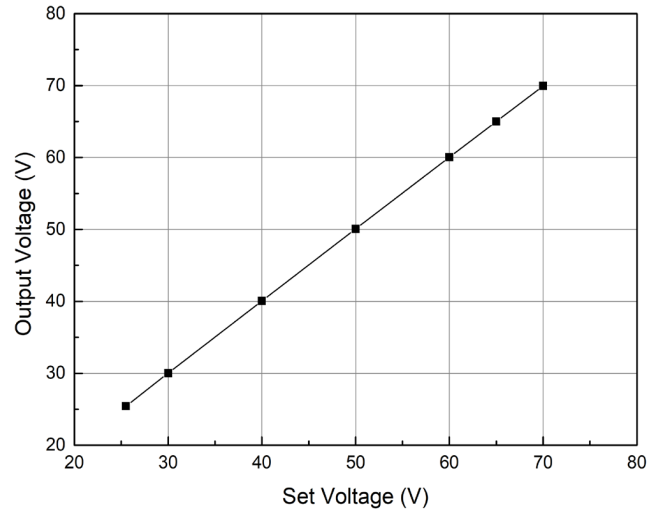


Characteristics

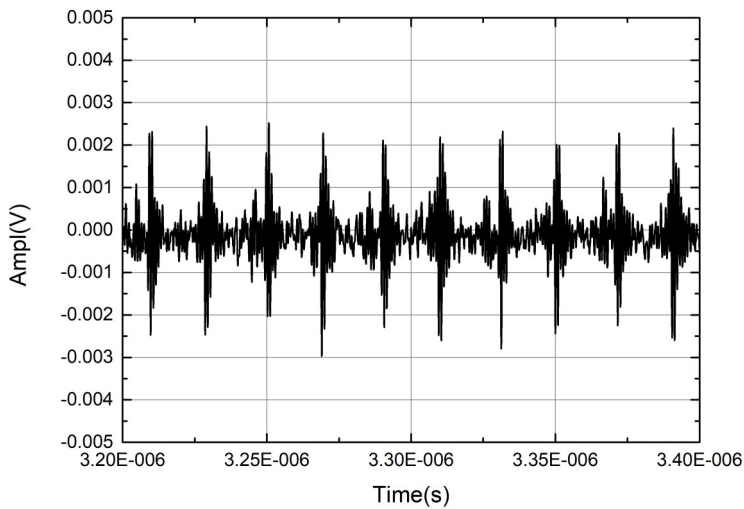
Output voltage vs. set voltage (port B)



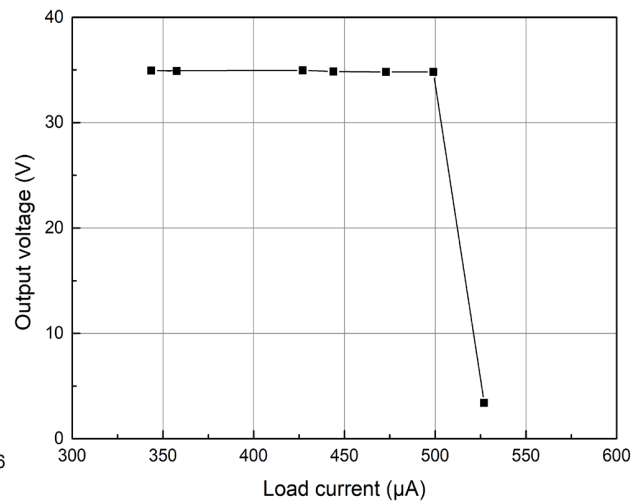
Output voltage vs. set voltage (port B)



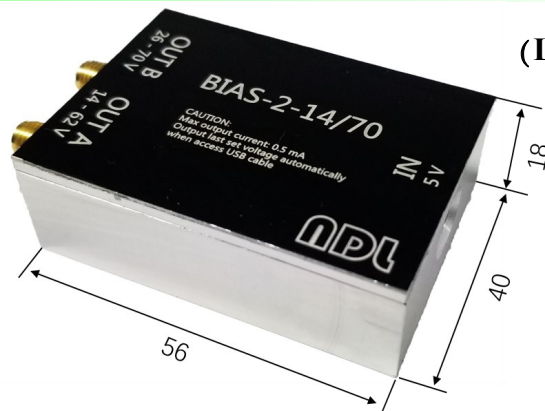
Ripple noise vs. time
(USB-powered port B 35 V no load)



Output voltage vs. load current



Dimensional outlines (unit: mm)



(L×W×H): 56 × 40 × 18