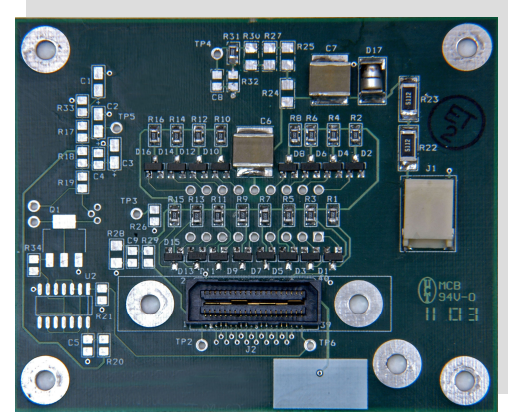
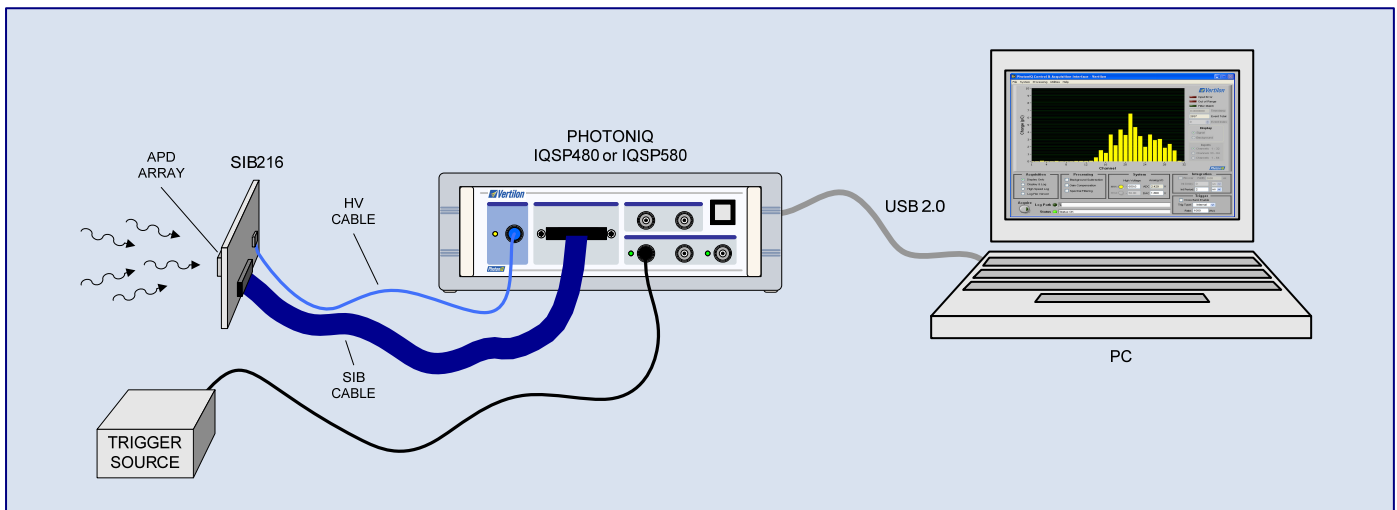


Description

The SIB216 Sensor Interface Board (SIB) provides the electrical and mechanical connectivity between a Pacific Silicon Sensor AD-LA-16-9-DIL18 avalanche photodiode (APD) array and a Vertilon PhotoniQ multi-channel PMT data acquisition system. The APD array mounts directly to the bottom of the SIB216 through 18 socket pins and electrical connections to the 16 avalanche photodiode elements are made to the SIB connector located on the top of the board. The SIB connector conforms to Vertilon's standard, low-noise, multi-channel, cable interconnection system. It mates to a micro-coaxial cable assembly that connects the 16 APD elements to the PhotoniQ. The high voltage connection to the APD array is made through a separate dedicated connector where a high voltage cable connects between it and the high voltage output on the PhotoniQ. A passive circuit on the SIB216 divides the raw high voltage output from the PhotoniQ by a factor of three for input to the common anode of the APD array.

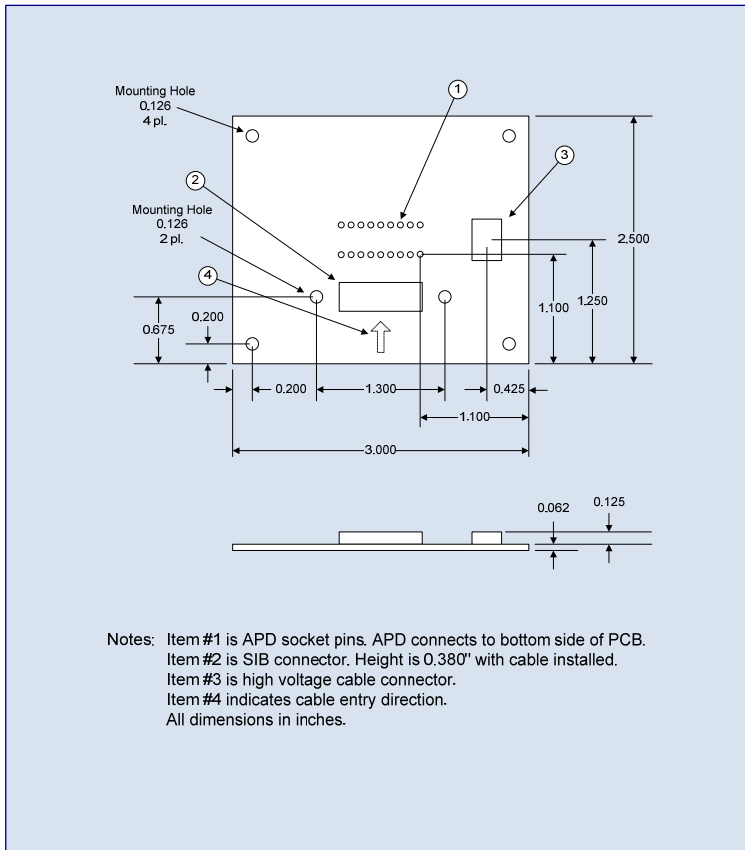


Typical Setup

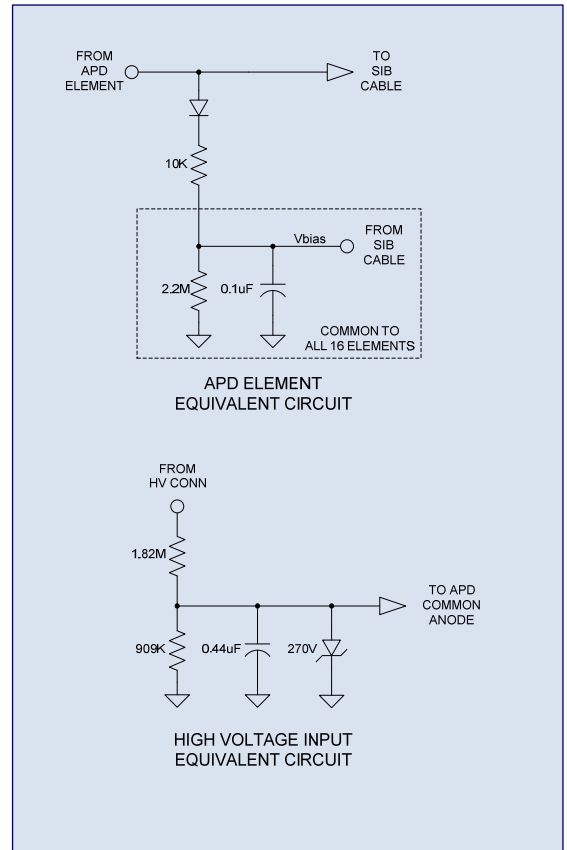


In a typical setup the Pacific Silicon Sensor APD array is plugged into the SIB216 Sensor Interface Board which in turn connects to a Vertilon PhotoniQ IQSP480 or IQSP580 multichannel data acquisition system using a SIB cable. When triggered from an external source, the PhotoniQ integrates and digitizes the 16 charge signals from the array and outputs a data packet to the PC over a USB connection. The PhotoniQ also supplies the high voltage bias to the common anode of the APD array through a specialized high voltage cable.

Mechanical Data



Electrical Data



General Safety Precautions

Warning: HIGH VOLTAGES – Voltages can exceed 1000V

Operate device within specified range

Electrostatic discharge sensitive

Do not operate in wet, damp or explosive atmosphere

See AD-LA-16-9-DIL18 data sheet for specific handling information



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