➔ Specification

- Input Voltage 12 V (approx. 1 A)
- 18 channels, 16 Bit resolution
- Output voltage ±11 V
- Max. output current 250 mA
- Output resistance 50 Ω
- Rise time of approx. 2 µs for a voltage jump of 10 V
- Waveforms Sine, Triangle, Sawtooth, Rectangle, Arbitrary
- Frequencies up to 1.5 kHz with 20 samples in one period
- Up to 1024 Samples per period for all 18 Channels are possible
- Free master/slave configuration
- 10 MHz Clock In & Clock Out
- Trigger In, Trigger Out (Period) & Trigger Out (each Sample) freely configurable
- Applications are typical calibrations with the AC Quantum Voltmeter, especially precision measurements in Planck balance and electron pump experiments

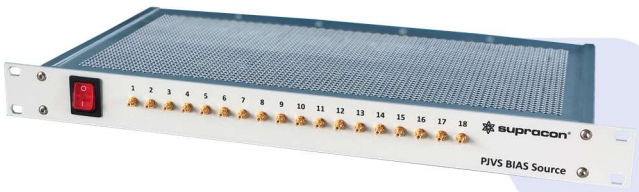


Figure 1. PJVS Bias Source mounted in a 19-inch-wide and case one height unit case.

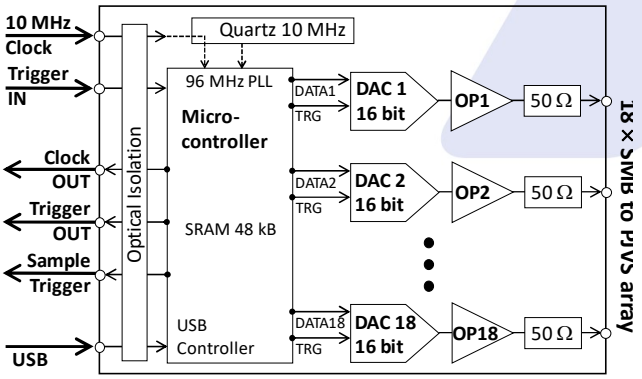
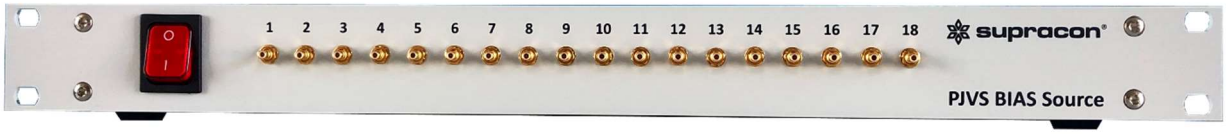


Figure 2. Schematic of PJVS Bias Source

➔ Connections of the Bias Source



➔ Timing Example

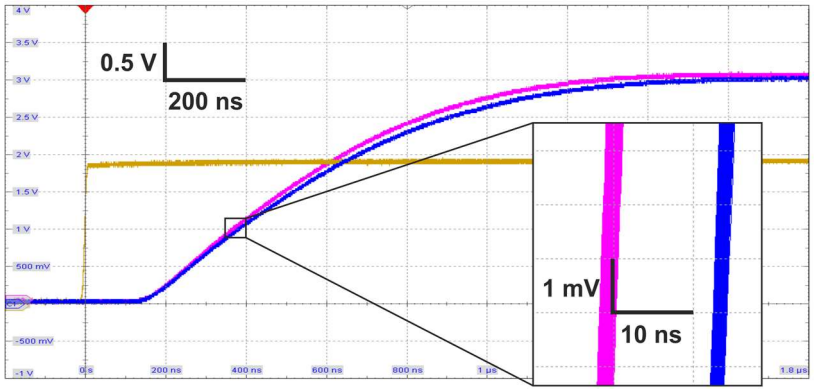


Figure 3. Timing of two output channels (pink and blue) triggered to the external Trigger-IN signal (yellow).

Supracon AG Jena
An der Lehmgrube 11
D-07751 Jena
Germany

Tel. +49 3641-2328100
Fax. +49 3641-2328109
www.supracon.com
info@supracon.com

Support
Michael Starkloff
michael.starkloff@supracon.com
Tel. +49 3641-2328169

➔ SYSTEM Integration

The PJVS bias source can easily be integrated in existing software projects with our provided Dynamic Link Library (DLL).
For many dynamic AC applications, it is useful to have besides the clock two different trigger signals available. One trigger (Trigger OUT) is according to the base frequency of the AC voltage and a second trigger (Sample Trigger) corresponds to the time of each voltage jump of the stepwise PJVS waveform. The Trigger-IN signal can be either related to the base AC frequency or the sample frequency, configurable by software.

➔ Program Example

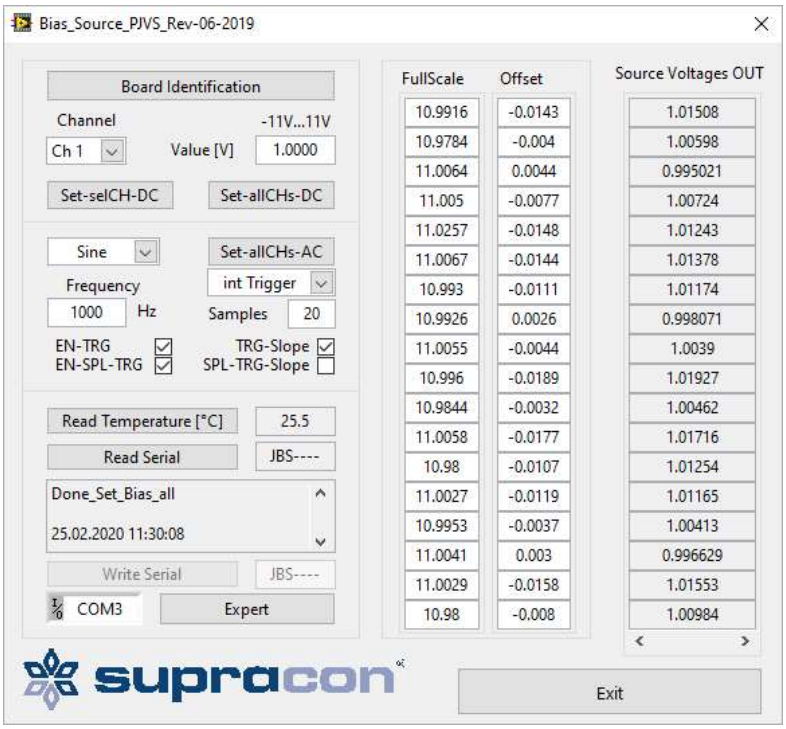


Figure 4. Example Program to set DC and AC voltages for all 18 channels with Trigger options. Further options like board temperature, serial number or message box can be seen.

Supracon AG Jena
An der Lehmgrube 11
D-07751 Jena
Germany

Tel. +49 3641-2328100
Fax. +49 3641-2328109
www.supracon.com
info@supracon.com

Support
Michael Starkloff
michael.starkloff@supracon.com
Tel. +49 3641-2328169