

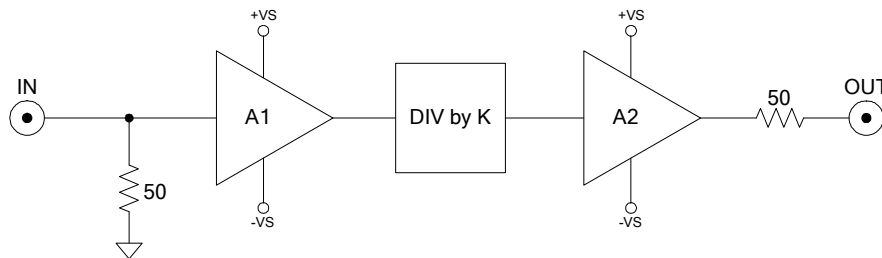
Description

- Ten Channel PMT / SiPM Preamp
- High Gain / Bandwidth
- Large Input and Output Dynamic Range
- BNC Inputs and Outputs
- Two User-Selectable Gain Settings
- Small Compact PCB Form Factor
- Jumper Configurable Input Gain and Polarity

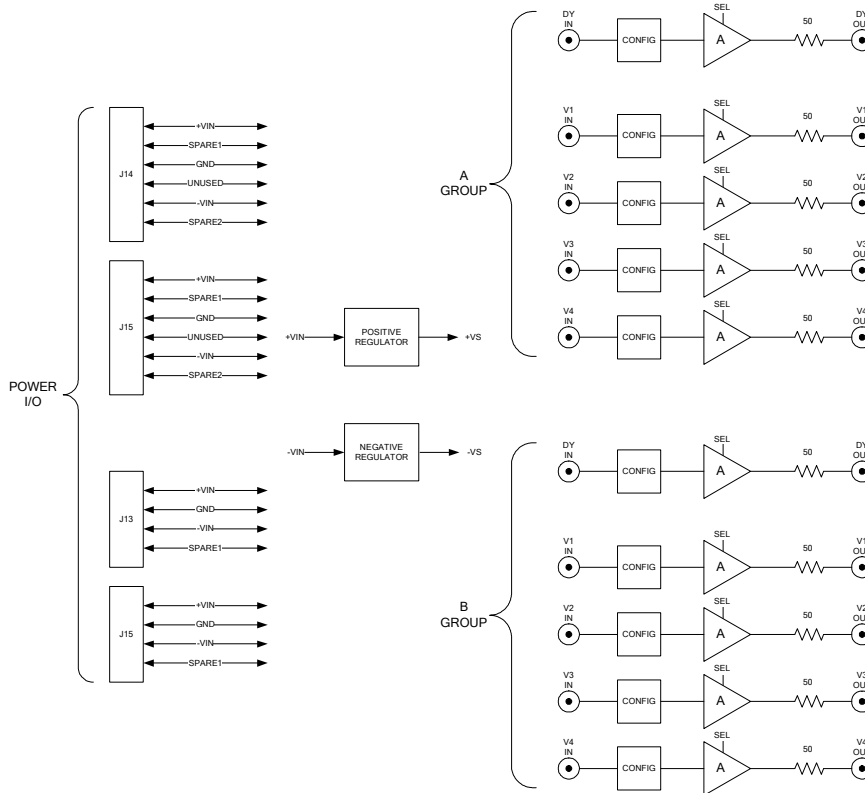


The PRP110 is a ten channel high bandwidth preamp module specifically designed for direct connection to anger logic circuitry for multianode photomultiplier tubes (MAPMT) and silicon photomultiplier (SiPM) arrays. The module is arranged as two groups of five channels with each group consisting of four anger logic channels and one channel for connection to a timing output such as a PMT’s last dynode signal. The polarity of the preamplifiers is such that the four anger logic and last dynode outputs all produce negative-going signals. Two versions of the PRP110 are available. The PRP110A is a 10X gain version of the product while the PRP110B is a 5X gain version with increased input dynamic range. Both product versions have a miniature rotary switch on each channel so that the overall gain can be reduced by a factor of four in high signal level applications. Dual stacked BNCs are utilized for the signal inputs and outputs. Two types of power input connectors are available on the PCB — a discrete four wire header and a six pin 2mm flat cable connector. Each connector type appears twice on the PRP110 so that multiple power connection schemes including daisy chaining can easily be accommodated.

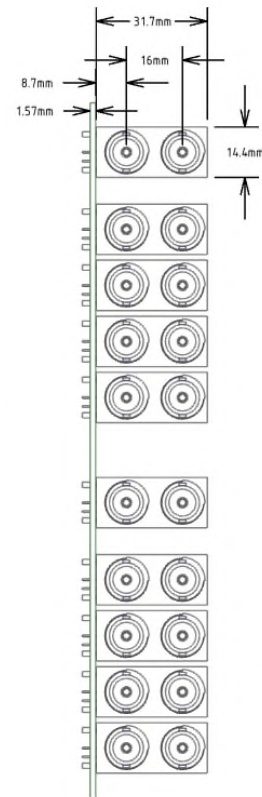
Preamp Channel



Functional Block Diagram



Dimensions



Specifications

Ordering Information

Order PRP110A for 10X gain version and PRP110B for 5X gain version. See User Manual for performance specifications.

Each unit includes:

- PRP110 ten channel preamplifier board
- Input power connector plus contacts
- Flat cable daisy-chaining kit
- Trimmer tool
- User Manual

ANGER LOGIC PREAMPLIFIERS	PRP110A	PRP110B
Input Dynamic Range	0 to -4 V	0 to -8 V
Gain into 50 ohms (High Setting)	+10	+5
Gain into 50 ohms (Low Setting)	+2.5	+1.25
Maximum Output Pulse	-4 V	-4 V
LAST DYNODE PREAMPLIFIER		
Input Dynamic Range	0 to +4 V	0 to +8 V
Gain into 50 ohms (High Setting)	-10	-5
Gain into 50 ohms (Low Setting)	-2.5	-1.25
Maximum Output Pulse	-4 V	-4 V
DYNAMIC		
Small Signal Bandwidth	236 MHz	236 MHz
Large Signal Bandwidth	146 MHz	146 MHz
Output Slew Rate	470 V/us	470 V/us



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