

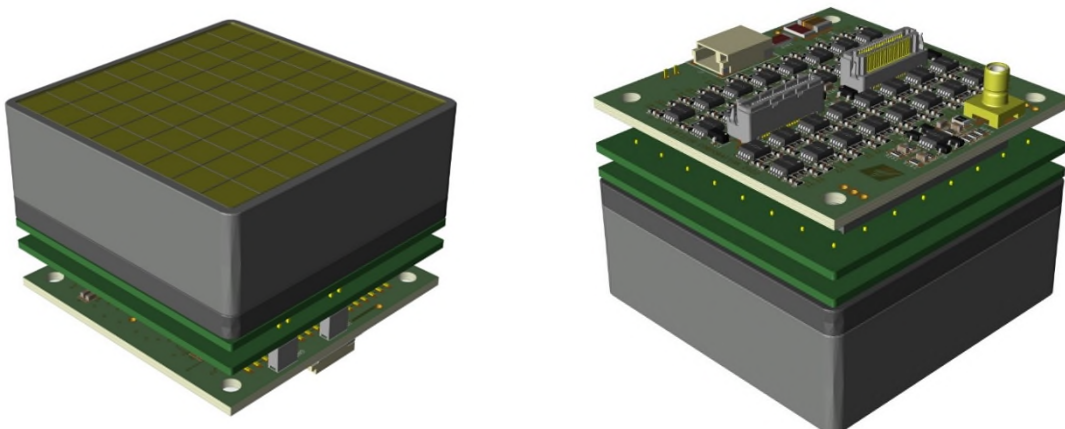
Description

- Mounting PCB / 64 Channel Transimpedance Preamplifier for Hamamatsu H14220A MAPMT
- Two 32 Channel Amplifier Boxes
- 32 Outputs available on SMB Connectors on each Amplifier Box
- Separate Timing Amplifier Chain for MAPMT Last Dynode Output
- Simple Power Supply and Connectivity

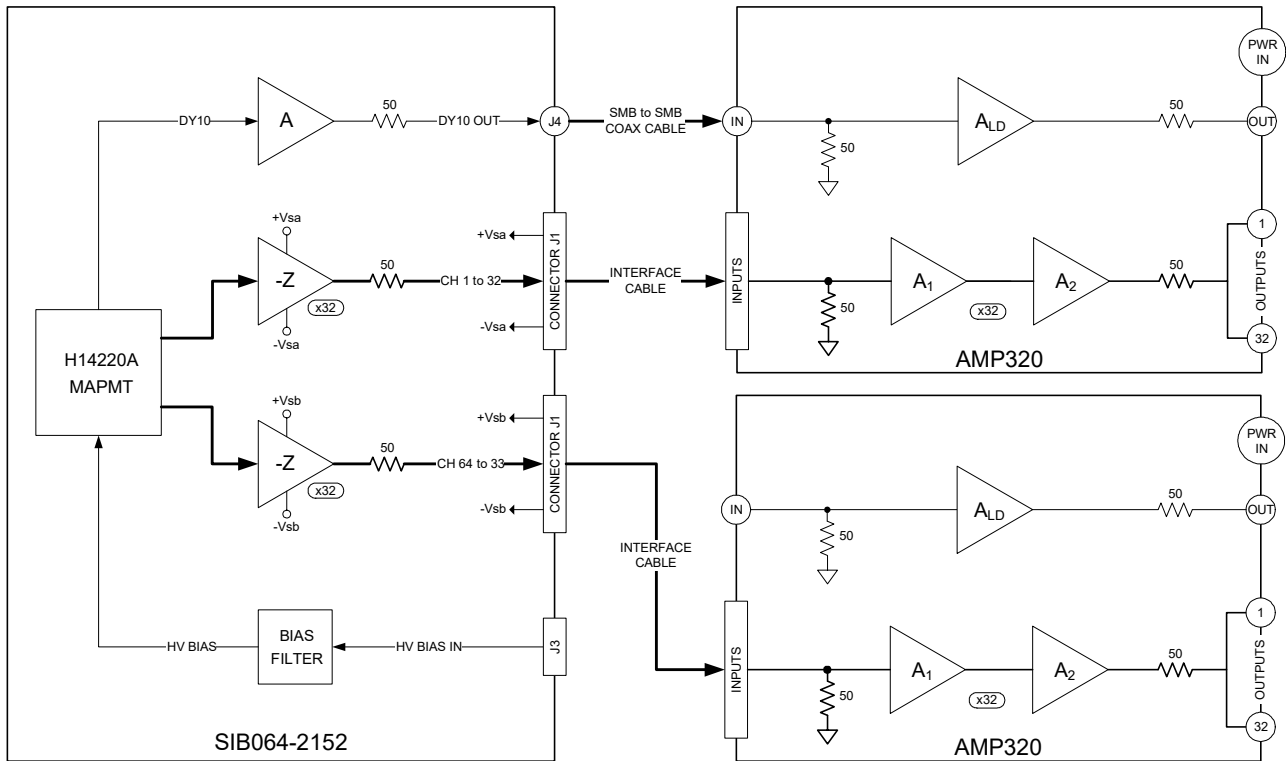


The SIB064-2152 preamplifier board provides the mechanical and electrical connectivity between the Hamamatsu H14220A 64 channel MAPMT and external data acquisition electronics. The MAPMT is inserted into four connectors on the bottom side of the SIB064-2152 MAPMT PCB. The board provides transimpedance gain to each of the 64 MAPMT anode signals while a timing amplifier provides gain to the last dynode output. Two top-side mounted high density flat cable connectors are used to connect the MAPMT PCB to the rear panels of two AMP320 shielded enclosures that each include 32 amplifiers. The outputs from the 64 individual amplifier chains are available on two 32 channel sets of SMB connectors located on the front panels of the AMP320s. Each AMP320 also has a timing amplifier chain for the MAPMT last dynode signal. A separate power cable to the circular DIN connector on the AMP320 rear panels provides power to the entire system. The system supports other large area MAPMTs including Hamamatsu H12700, H10966, and H8500

MAPMT / Preamplifier PCB Assembly



System Block Diagram



Specifications

Ordering Information

For 64 channel system for Hamamatsu H14220A MAPMT, order SIB064-2152 and two AMP320. See User Manual for performance specifications.

Each system includes:

- SIB064-2152 Mounting / Preamp PCB for Hamamatsu H14220A
- Two AMP320 32 Channel Amplifier Boxes
- Two MAPMT PCB to AMP320 Interface Cable
- Two Power Supplies
- User Manual

| PMT ANODE SIGNAL PATH | TYPICAL |
|-----------------------|-----------------|
| Total Transimpedance | 53.5 |
| Linear Input Range | -25 to +5 uA |
| Maximum Input | -250 to +250 uA |
| Output Range | -0.3 to +1.5V |
| Output Slew Rate | 800 V/us |
| TIMING SIGNAL PATH | |
| Total Gain | 123 |
| Linear Input Range | -2.4 to +12 mV |
| Maximum Input | -100 to +100 mV |
| DC Input Impedance | 100 KΩ |
| Output Range | -0.3 to +1.5V |
| Output Slew Rate | 800 V/us |



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