



Acceptance TEST

20220826

# AH-501B 4-CHANNEL FAST PICOAMMETER

## ACCEPTANCE TEST

**Customer:** ALIBAVA SYSTEMS SL  
**Order:** 2022\_004 dd. 03/03/2022

**Date:** 26/08/2022

**Location:** Elettra – Sincrotrone Trieste

**Prepared by:**

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Iscritta al Registro delle Imprese di Trieste  
Società di Interesse nazionale  
ai sensi dell'art. 10, comma 4,  
L. 19 ottobre 1999 n. 370

Organizzazione con sistema  
di gestione ISO 9001 e  
OHSAS 18001 certificato da  
Bureau Veritas Italia S.p.A.



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**AH501B Acceptance Test Results**

This is to certify that the following instrument/s:

<b>Instrument</b>	<b>Serial Number</b>
AH501B	000070

Has/have passed laboratory acceptance tests and has/have been found to comply with the manufacturer specification as follows:

- Noise @ RNG0: < 25 nA<sub>RMS</sub>
- Noise @ RNG1: < 25 pA<sub>RMS</sub>
- Noise @ RNG2: < 250 fA<sub>RMS</sub>
- Installed Firmware version: 3.1.0
- Installed Communication Module: Ethernet TCP/IP
- Instrument Functionality: OK
- Analog Voltage Outputs ( $\pm 5V$ ):
  - Vo1: OK
  - Vo2: OK
  - Vo3: OK
  - Vo4: OK
- Bias Voltage: OK (up to 30 V)

The acceptance test consists in the evaluation of the input current noise and the channel offset values. All four inputs must be kept closed and shielded with BNC caps during the noise measurements.

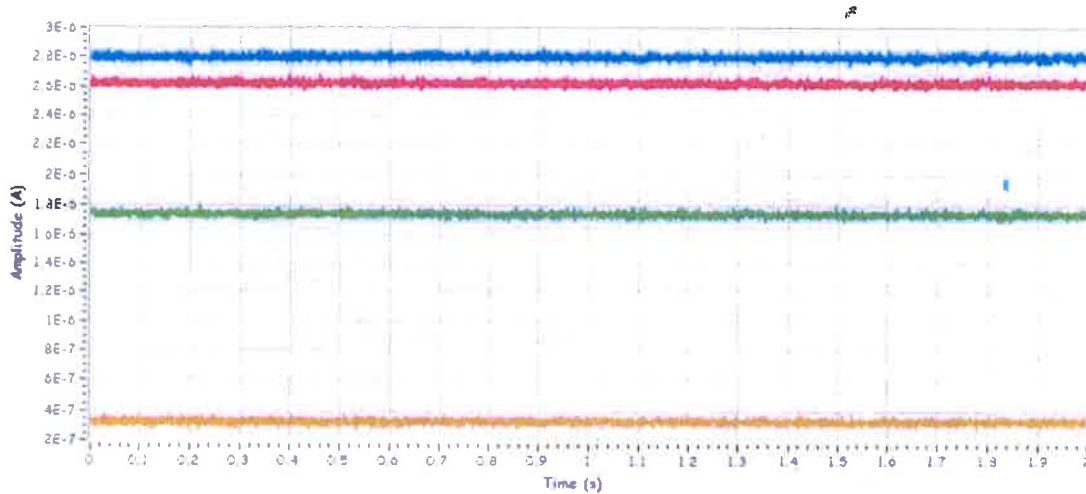
Set-Up details:

- LabView "AH501B Oscilloscope" software
- AH501B Resolution: 24-bit
- Read data type: *Raw Data (BIN ON)*
- Acquisition Time: 2000 ms (= 6510 samples/channel)
- Warm-up time: > 30 min



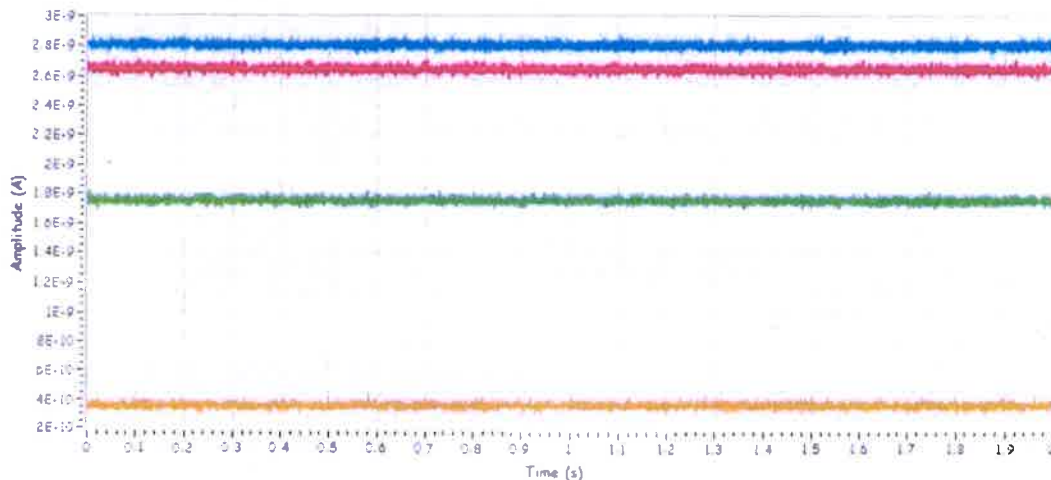
### RNG0 (up to $\pm 2.5$ mA)

Channel	Offset Current	RMS Noise
CH1	2.63 $\mu$ A	14.8 nA
CH2	0.36 $\mu$ A	16.3 nA
CH3	1.75 $\mu$ A	15.9 nA
CH4	2.81 $\mu$ A	16.2 nA



### RNG1 (up to $\pm 2.5$ $\mu$ A)

Channel	Offset Current	RMS Noise
CH1	2.65 nA	16.7 pA
CH2	0.36 nA	18.3 pA
CH3	1.76 nA	16.8 pA
CH4	2.82 nA	18.3 pA





RNG2 (up to  $\pm 2.5$  nA)

Channel	Offset Current	RMS Noise
CH1	4.10 pA	215 fA
CH2	1.82 pA	209 fA
CH3	3.24 pA	205 fA
CH4	4.42 pA	189 fA

