

CALIBRATION REPORT ORDER NO. AUGUST 9, 2016 PAGE 1 OF 1

MANUFACTURER:

**OHM-LABS** 

DESCRIPTION:

**CURRENT SHUNT** 

MODEL: SERIAL: CS-1000

PROCEDURE:

CS CAL

LAB ENVIRONMENT:

23.5 °C / 45 %RH

CALIBRATION DATE:

09/Aug/2016

CALIBRATION DUE

Measurement Data – As Found / As Left				
APPLIED CURRENT	MEASURED VALUE	UNCERTAINTY		
200 A	99.988 3 μΩ	36 μΩ/Ω		
400	99.989 8	43		
600	99.994 6	34		
800	99.998 5	33		
1000	100.000 2	35		

## NOTES:

SHUNT WAS ALLOWED TO FULLY STABILIZE AT EACH APPLIED CURRENT.

THE REPORTED UNCERTAINTY INCLUDES AN ESTIMATED TEMPERATURE COEFFICIENT OF RESISTANCE (TCR) VARIABILITY of 20  $\mu\Omega/\Omega$  for Manganin type shunts, corresponding to a +/-1 °C ambient temperature uncertainty.

## STANDARDS USED

ID	DESCRIPTION	MAKE & MODEL	CAL DUE
AS3001	RESISTANCE STANDARD	OHM-LABS 202	30/SEP/2016
AS3404	CURRENT COMPARATOR BRIDGE	GUILDLINE 3000 A	30/Mar/2017

## COMMENTS:

OHM-LABS, INC. CERTIFIES THAT THIS CALIBRATION IS TRACEABLE TO THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST), OR ANOTHER RECOGNIZED NATIONAL MEASUREMENT INSTITUTE, OR DERIVED BY A RATIO TYPE SELF-CALIBRATION TECHNIQUE, AND IS ACCREDITED TO ISO/IEC 17025. OHM-LABS' QUALITY CONTROL SYSTEM MEETS THE REQUIREMENTS OF ANSI/NCSL Z540-1-1994. THE REPORTED UNCERTAINTIES REPRESENT EXPANDED UNCERTAINTIES EXPRESSED AT A CONFIDENCE LEVEL OF APPROXIMATELY 95 %, USING A COVERAGE FACTOR OF K=2. THIS UNCERTAINTY IS AT THE TIME OF TEST ONLY AND DOES NOT TAKE INTO ACCOUNT TRANSIT, USAGE, DRIFT OVER TIME, OR OTHER FACTORS AFFECTING STABILITY. THIS DOCUMENT CERTIFIES THAT THE ITEMS IDENTIFIED HEREIN COMPLY WITH ALL REQUIREMENTS OF THE ABOVE PURCHASE ORDER, AND THAT THE CALIBRATION PERFORMED WAS IN ACCORDANCE WITH THE CURRENT REVISION LEVEL OF OHM-LABS' QUALITY CONTROL SYSTEM. TRAINED AND QUALIFIED PERSONNEL PERFORMED THE CALIBRATIONS IN ACCORDANCE WITH THE REQUIREMENTS OF ISO/IEC 17025. THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT WRITTEN PERMISSION BY OHM-LABS, INC.

PERFORMED BY:

REVIEWED BY:

alibration ACCREDITED