



# Certificate of Calibration

714 mΩ Resistor  
Serial Number 111181F14

*This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.*

FOR	Transmille Limited Unit 4 Select Business Centre Lodge Road Staplehurst Kent TN12 0QW
MANUFACTURER	Not Marked
DATE OF CALIBRATION	15-23 July 2014
MEASUREMENT NUMBER	ED.11/14/004/EtA 535.298

The resistor was tested on direct and alternating current.

Measurements were obtained at an air temperature of  $20 \pm 1^\circ\text{C}$ .

The reported uncertainties are based on a standard uncertainty multiplied by a coverage factor  $k = 2$ , providing a coverage probability of approximately 95%. The uncertainty evaluations have been carried out in accordance with UKAS requirements. These values are given in Table 1. They relate only to the measured value and carry no implication regarding the stability of the resistor.

Table 2 gives the differences between the alternating and direct currents required to give the same output when successively applied to the input connector. The direct current was taken as the mean of values obtained with forward and reverse polarities. A negative sign indicates a lower value of alternating current was required to produce the same output.

Reference: 2014060087-2

Date of Issue: 25 July 2014

Checked by: AJW, TJS

Signed: *AJWheaton* (Authorised Signatory)

Name: A J Wheaton

on behalf of NPLML

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*This certificate is consistent with the capabilities that are included in Appendix C of the MRA drawn up by the CIPM. Under the MRA, all participating institutes recognize the validity of each other's calibration and measurement certificates for the quantities, ranges and measurement uncertainties specified in Appendix C (for details see <http://www.bipm.org>).*

# NATIONAL PHYSICAL LABORATORY

Continuation Sheet

Table 1 Uncertainty to at least 95% confidence level, ppm							
Applied Current (A)	Frequency / Hz						
	23	56	106	1 000	2 000	5 000	10 000
1	± 33	± 22	± 22	± 23	± 20	± 21	± 20

Table 2 AC/DC Difference, ppm							
Applied Current (A)	Frequency / Hz						
	23	56	106	1 000	2 000	5 000	10 000
1	- 8	5	- 8	- 4	1	- 6	4

**END OF MEASUREMENTS**