



Certificate 4044.01

**Certificate of Calibration  
no. 20160802**



**Client:** Customer name and location.

**Calibration location:** CNS Inc. calibration lab, 12625 Danielson Court # 112, Poway CA 92064 - USA

**Calibration date:** July 28, 2016

**Calibrated by:** Mathieu van den Bergh

**Environmental temp:** 24 ° C

**Humidity:** 40 % RH

**Equipment type(s):** Programmable power source and harmonics/Flicker power analyzer

**Manufacturer(s):** Ametek / Teseq

**Model no(s):** NSG1007-135, CCN1000-3, H/F test system, Impedances & 411 switch

**Serial no(s):** 1627A00529/00530/00531, 1626A00232, 1626A00966, 1626A00338, A36184

**Software version(s):** WIN2100 V4, WIN2110 V3, WIN2120 V6 **Firmware version(s):** 5.28 (power source)

**Calibration standard(s):** IEC 61000-3-2, IEC 61000-3-3, IEC 61000-4-7, IEC 61000-4-11, IEC 61000-4-15, IEC61000-4-11, IEC 61000-4-13

*Note; Unless otherwise indicated, all standards referenced are the latest versions in effect at the date of calibration.*

**Calibration procedure(s):** C-005, C-007

<b>Equipment status:</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>
<b>Received in tolerance</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Returned in tolerance</b>	<input checked="" type="checkbox"/>
			<b>Returned with limited calibration</b>	<input type="checkbox"/>

**Calibration due date:** Customer discretion

**Approved by**

Mathieu van den Bergh, Quality Manager  
August 12, 2016



**Computer & Networking Services Inc.**

Crystal View Lane – Poway CA 92064 Tel: 858-486-4707  
Calibration Lab. 12625 # 112 Danielson Ct. - Poway CA 9206  
[www.cnspoway.com](http://www.cnspoway.com)

**Calibration data file as part of this certificate: Data for certificate 20160802-NAST**

CNS Inc. provides supporting calibration data reports with standard data formats for each procedure, in accordance with the calibration procedures listed on page 1 of this certificate.

**Calibration uncertainty:**

The above calibration data file lists the uncertainties for each of the measured/reported parameters. Uncertainties per each procedure are determined based on instrumentation specifications and actual instrumentation calibration data, using standard methodology, and applying a coverage factor  $K=2$ , for a 95 % confidence interval. The instrumentation used for calibrations is listed below, and the instrumentation is calibrated in regular intervals in accordance with ISO/IEC-17025 (2005) requirements.

**Calibration equipment used:**

Model #	Serial #	Equipment type	ISO Trace #	Cal due date
Fluke Model 8845A	1998007	Multimeter,	222200812420335	7/13/2018
Agilent 34410A	MY45002306	Multimeter,	222008122410706	2/16/2017
Extech 570A	103381623	Multimeter hand held	222008122408730	2/15/2017
TDS2014B	C034121	Dig. Storage scope	222008122409399	2/15/2017
DS6062V	DS606221301058	Dig. Storage scope	222008122410716	2/15/2017
7003-257	0724	Shunt 100 m $\Omega$	222008122414135	2/19/2017
100 AMP	None	Shunt 10 m $\Omega$	222008122414211	2/19/2017
HFC-III Calibration load	1401	Programmable Load		
HFC-II Calibration load	None	Programmable Load		

**Calibration traceability:**

CNS Inc. is accredited to ISO/IEC 17025 (2005). The above equipment is traceable to ISO/IEC 17025. Supporting documentation and/or instrumentation calibration certificates as they relate to traceability are available upon request.

**Limited calibration and out of tolerance equipment status explanation:**

In the event that equipment is returned out of tolerance, or with a limited calibration, the above listed calibration data file will provide specific detail as to the reasons why the out of tolerance or limited calibration condition(s) apply.

**Computer & Networking Services Inc.**

Crystal View Lane – Poway CA 92064 Tel: 858-486-4707  
 Calibration Lab. 12625 # 112 Danielson Ct. - Poway CA 9206

[www.cnspoway.com](http://www.cnspoway.com)