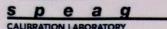
## **DAE Calibration Certificate**









Client :

CATR(Chongqing)

Certificate No: Z14-97031

# CALIBRATION CERTIFICATE

E-mail: Info@emcite.com

Object

DAE4 - SN: 1329

Calibration Procedure(s)

TMC-OS-E-01-198

Calibration Procedure for the Data Acquisition Electronics

Calibration date:

April 17, 2014

This calibration Certificate documents the traceability to national standards, which realize the physical units of measurements(SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature(22±3)°C and humidity<70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards ID# Cal Date(Calibrated by, Certificate No.) **Scheduled Calibration** 

Documenting

Process Calibrator 753 1971018 01-July-13 (TMC, No:JW13-049)

Name

July-14

Calibrated by:

Function

Signature

Reviewed by:

Qi Dianyuan

Yu Zongying

Lu Bingsong

SAR Test Engineer SAR Project Leader

Approved by:

Deputy Director of the laboratory

Issued: April 18, 2014

This calibration certificate shall not be reproduced except in full without written approval of the laboratory

Add: No.52 Huayuanbei Road, Haidian District, Beijing, 100191, China Tel: +86-10-62304633-2079 Fax: +86-10-62304633-2504 Http://www.emcite.com

Glossary:

DAE data acquisition electronics

Connector angle information used in DASY system to align probe sensor X

to the robot coordinate system.

### Methods Applied and Interpretation of Parameters:

- DC Voltage Measurement: Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- Connector angle: The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The report provide only calibration results for DAE, it does not contain other performance test results.



Add: No.52 Huayuanbei Road, Haidian District, Beijing, 100191, China Tel: +86-10-62304633-2079 Fax: +86-10-62304633-2504 Http://www.emcite.com

DC Voltage Measurement

A/D - Converter Resolution nominal

High Range: 1LSB = 6.1μV, full range = -100...+300 mV

Low Range: 1LSB = 61nV, full range = -1.....+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	403.552 ± 0.15% (k=2)	402.988 ± 0.15% (k=2)	403.147 ± 0.15% (k=2)
Low Range	3.99667 ± 0.7% (k=2)	3.98269 ± 0.7% (k=2)	3.97690 ± 0.7% (k=2)

#### Connector Angle

Connector Angle to be used in DASY system	20° ± 1 °
Connector Angle to be used in DAST system	20 1