

**CONFIDENTIAL**

**SINGAPORE ACCREDITATION COUNCIL  
SINGAPORE LABORATORY ACCREDITATION SCHEME (SAC-SINGLAS)**

**TECHNICAL ASSESSOR/EXPERT CHECKLIST**

**INTRODUCTION**

Thank you for assisting SAC-SINGLAS as a technical assessor/expert.

Evaluation of the technical competence of the laboratory is the integral component of a SAC-SINGLAS assessment. As a technical assessor/expert, you play a key role in the assessment and are requested to:

- a) examine and evaluate the technical competence of a laboratory
- b) determine the suitability of the methods employed in various test/calibration
- c) examine whether the scope of application is within the capability of the laboratory
- d) recommend and verify ranges and uncertainties for specific test/calibration, where applicable
- e) provide constructive advice to laboratories on improving their operation

To aid you in this task, the Technical Assessor/Expert Checklist LAFM05 is provided. This report is divided into three parts:

- a) Introduction
- b) Part A: Roles of assessors/experts  
This section outlines the roles of both the SAC-SINGLAS team leader and the technical assessor/expert, which are complementary in nature. There are also areas where both assessors need to examine together
- c) Part B: Signatory approval  
This section is on the nominees or existing approved signatories
- d) Part C: Types of test/calibration witnessed and/or assessed through document review by the technical assessor/expert and comments  
This section is where technical assessor/expert is required to list down the following:
  - i) types of test/calibration assessed or witnessed
  - ii) comments on the performance of the laboratory
  - iii) non-conformities against SAC 01, SAC-02, SAC-SINGLAS 001& 006, ISO/IEC 17025, technical notes, PROF 001 and/or any test/calibration requirements  
(Additional sheets to be provided where necessary)

At the end of the assessment, please sign on the cover page and return the Technical Assessor/Expert Checklist (LAFM05) to the team leader for his/her collation of the findings for presentation to the laboratory during the closing meeting.

Thank you for conducting the assessment for SAC.

Name of Organisation Assessed: \_\_\_\_\_

Date(s) of Assessment : \_\_\_\_\_

Name of Team Leader : \_\_\_\_\_

Technical Assessor : \_\_\_\_\_

Name

**PART A: ROLES OF ASSESSORS**

Team Leader (TL)	Technical Assessor / Expert (TA / TE)
<ul style="list-style-type: none"> <li>• Introduces the team</li> <li>• Briefs on the Assessment plan</li> <li>• Confirms on changes(s) to scope and signatories</li> <li>• Evaluates the laboratory's quality system and its implementation</li> <li>• Discusses with the laboratory staff</li> <li>• Assesses nominee's understanding of SAC requirements and responsibilities as approved signatory</li> <li>• Collates the findings</li> <li>• Discusses with TA/TE on the severity of the findings</li> <li>• Discusses with TA/TE on the recommendations on the accreditation status</li> <li>• Presents findings</li> <li>• Informs laboratory the timeline for submission of corrective actions according to the category of the non-conformities</li> </ul>	<ul style="list-style-type: none"> <li>• Notes the change(s) to scope and signatory approval(s)</li> <li>• Understands laboratory's operations</li> <li>• Evaluates laboratory's technical capability</li> <li>• Discusses with key technical staff and technicians (hands-on personnel)</li> <li>• Witnesses test/calibration</li> <li>• Assesses nominee's qualifications, technical competence and ability to evaluate results</li> <li>• Comments on the competence laboratory, makes suggestions where appropriate</li> <li>• Discusses with TL on the severity of the findings</li> </ul>
Team Leader (TL)	Technical Assessor / Expert (TA / TE)
<ul style="list-style-type: none"> <li>• Confirm Assessment plan</li> <li>• Arranges pre-meeting with TA/TE, where necessary</li> <li>• Arranges with Laboratory for test/calibration to be demonstrated</li> </ul>	<ul style="list-style-type: none"> <li>• Prepares for assessment</li> <li>• Informs TL of test/calibration to be demonstrated</li> <li>• Requests for test/calibration methods where appropriate</li> </ul>
Team Leader (TL)	Technical Assessor / Expert (TA / TE)
<ul style="list-style-type: none"> <li>• Reviews corrective actions and where necessary, collates the team's comments for laboratory's further clarification</li> <li>• Conducts a verification visit, where necessary</li> <li>• Writes the assessment report with team's findings and recommendations</li> </ul>	<ul style="list-style-type: none"> <li>• Review corrective actions raised and offers comments, where appropriate</li> <li>• Visits the laboratory for a follow-up verification with TL, where necessary</li> <li>• Provides clarification on findings, where necessary</li> </ul>

## PART B: SIGNATORY APPROVAL

### 1. New Nominees for Signatory Approval

Name(s) of nominated signatory(ies) assessed:

- 1.
- 2.

Please assess the following:

- a) Does/Do the nominee(s) possess the appropriate technical qualifications and experience?
  
- b) Does/Do the nominee(s) occupy appropriate positions in the organisation staff structure to be responsible for the adequacy of test/calibration results?
  
- c) Does/Do the nominee(s) possess technical knowledge of the test/calibration under the scope of accreditation?
  
- d) Is/Are the nominee(s) competent to make a critical evaluation of test/calibration results?
  
- e) Does/Do the nominee(s) spend sufficient time in the laboratory in order to exercise adequate supervision?
  
- f) Has the nominee(s) been working in the laboratory for at least a year?

## 2. Existing Approved Signatories (as shown in the latest Schedule of Accreditation)

Please refer to existing Schedule.

Name(s) of existing signatory(ies) assessed:

- 1.
- 2.

- a) Do the signatories still occupy appropriate positions in the organisation staff structure to be responsible for the adequacy of test/calibration results?
- b) Do the signatories still retain sufficient contact time with test/calibration procedures to maintain the ability for critical evaluation of results?

**PART C:  
TYPES OF TEST/CALIBRATION WITNESSED /  
ASSESSED THROUGH DOCUMENT REVIEW\***

<b>ISO/IEC 17025:2017 Requirements to be assessed by TA/TE when witnessing test/calibration and/or conducting document review</b>	<b>Title of Test/ Calibration witnessed/reviewed* :</b>	
<b>Laboratory Staff observed who demonstrated the test (Names/Designation)</b> <ul style="list-style-type: none"> <li>• Clause 6.2</li> </ul>	<input type="checkbox"/> Standard method <input type="checkbox"/> Modified standard method <input type="checkbox"/> In-house / non-standard method  <b><i>[Please indicate Test Standard (Version / clause no. if applicable)]</i></b> <input type="checkbox"/> Training Records <input type="checkbox"/> Competency Records	
<b>Facilities and Environmental Conditions</b> in accordance with Test Standard/ methods or procedure <ul style="list-style-type: none"> <li>• Clause 6.3</li> </ul>	<input type="checkbox"/> Documented Procedures <input type="checkbox"/> Records	
<b>Equipment &amp; Calibration</b> (E.g. calibration cert no., serial no., equipment ID) <ul style="list-style-type: none"> <li>• Clause 6.4</li> </ul>	Equipment Status : Working / Faulty / Not Available <input type="checkbox"/> Calibrated within working range <input type="checkbox"/> Equipment safeguarded from adjustments <input type="checkbox"/> Maintenance Schedule / Records	
<b>Traceability/ Reference Materials and Standards</b> <ul style="list-style-type: none"> <li>• Clause 6.5</li> </ul>	<input type="checkbox"/> Valid certificate <input type="checkbox"/> Proper Storage / Identification	
<b>Validity of Results/ Proficiency Testing (PT)/IQC/ Inter-Laboratory Comparison</b> <ul style="list-style-type: none"> <li>• Clause 7.7</li> </ul>	<input type="checkbox"/> In-house monitoring of results <input type="checkbox"/> Participate in PT / Inter-laboratory Comparison (Only if PT is unavailable) <input type="checkbox"/> Outlier reviewed (if applicable) <input type="checkbox"/> Effectiveness of corrective actions <input type="checkbox"/> Records of performance checks for infrequent laboratory activities	
<b>Handling of samples and sampling</b> <ul style="list-style-type: none"> <li>• Clause 7.4</li> </ul>	<input type="checkbox"/> Storage Requirements <input type="checkbox"/> Identification of sample	

<b>Validation of method (in-house / non-standard and modified standard method)</b>  <ul style="list-style-type: none"> <li>• Clause 7.2</li> </ul>	<input type="checkbox"/> Documented Procedures <input type="checkbox"/> Validation Report
<b>Modified standard method (if applicable)</b>	Does the modified standard method (i.e. test methods modified from a standard method) has equal performance as the standard method?  <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Measurement Uncertainty</b>  <ul style="list-style-type: none"> <li>• Clause 7.6</li> </ul>	<input type="checkbox"/> Are the sources of uncertainty identified? <input type="checkbox"/> For quantitative test/calibration, is the measurement uncertainty evaluated?
<b>Sampling</b>  <ul style="list-style-type: none"> <li>• Clause 7.3</li> </ul>	
<b>Control of data/ Validation of in-house developed software (if applicable)</b>  <ul style="list-style-type: none"> <li>• Clause 7.11</li> </ul>	
<b>Test/Calibration Reports and Raw data sheet</b> (Indicate report no.)  <ul style="list-style-type: none"> <li>• Clause 7.8</li> </ul>	

**\*NOTE : Please delete accordingly**