

**SKILLS FRAMEWORK FOR ELECTRONICS  
TECHNICAL SKILLS & COMPETENCIES (TSC) REFERENCE DOCUMENT**

<b>TSC Category</b>	Quality Management					
<b>TSC</b>	Failure Analysis					
<b>TSC Description</b>	Examine the electrical and physical defects evidence to verify the causes of failure as well as identify the failure modes					
<b>TSC Proficiency Description</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>	<b>Level 6</b>
			<b>ELE-QUA-3002-1.1</b>	<b>ELE-QUA-4002-1.1</b>	<b>ELE-QUA-5002-1.1</b>	
			Implement failure analysis to determine if defect is caused by electrical or physical failure	Review failure analysis results and implement changes that limit and/or eliminate the causes of failure	Initiate failure analysis projects to improve organisation's objectives	
<b>Knowledge</b>			<ul style="list-style-type: none"> <li>Types of failure analysis techniques</li> <li>Failure analysis tools</li> </ul>	<ul style="list-style-type: none"> <li>Types of failure analysis techniques</li> <li>Procedures for failure analysis techniques</li> </ul>	<ul style="list-style-type: none"> <li>Failure analysis techniques</li> <li>Problem solving techniques</li> </ul>	
<b>Abilities</b>			<ul style="list-style-type: none"> <li>Identify types of failure analysis techniques</li> <li>Select appropriate failure analysis techniques to perform analysis</li> <li>Review failure analysis results</li> <li>Determine follow-up action required</li> </ul>	<ul style="list-style-type: none"> <li>Identify appropriate failure analysis techniques</li> <li>Perform failure analysis techniques</li> <li>Interpret failure analysis results</li> <li>Recommend follow-up actions required</li> </ul>	<ul style="list-style-type: none"> <li>Select appropriate project that can help improve company's objective in the context of failure analysis</li> <li>Define project scope of work and the number of hours based on business requirements</li> <li>Execute project in accordance with project plan</li> <li>Evaluate project effectiveness in accordance with project objectives</li> <li>Recommend follow up actions in accordance with organisational requirements</li> </ul>	