

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

<b>TSC Category</b>	Product Development and Testing					
<b>TSC</b>	Product Testing					
<b>TSC Description</b>	Formulate test programme structure based on product specifications as well as develop a systematic approach in resolving test issues					
<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-NPD-3003-1.1</b>	<b>ELE-NPD-4003-1.1</b>	<b>ELE-NPD-5003-1.1</b>	
			Implement test programmes used to test the functionalities of different types of electronics devices	Develop a systematic approach in resolving test issues by applying different methodologies and fundamentals used in functionalities testing	Evaluate test data extraction results and recommend corrective actions to resolve test issues	
<b>Knowledge</b>			<ul style="list-style-type: none"> <li>• Test programme release procedure</li> <li>• Test programme structure, Automated Test Equipment (ATE) programming language and engineering tools</li> <li>• Basic data extraction tools</li> <li>• Process in implementing the changes</li> </ul>	<ul style="list-style-type: none"> <li>• Basic definition of the systems of an Automated Test Equipment (ATE)</li> <li>• Basic functions of the different test hardware instruments of an ATE tester</li> <li>• Different test methodologies used in ATE testing</li> <li>• Standard test flow and procedures according to organisation's standard testing practices</li> </ul>	<ul style="list-style-type: none"> <li>• Different record types used to identify each test data stored</li> <li>• Parts and information in the test summary</li> <li>• Software tools used to extract and analyse test data</li> </ul>	
<b>Abilities</b>			<ul style="list-style-type: none"> <li>• Prepare the test programme changes</li> <li>• Create or modify a test algorithm from existing test programme</li> <li>• Validate the changes to ensure it meets the project requirements</li> <li>• Release and monitor the changes</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the different test methodologies</li> <li>• Develop test algorithms according to the product specifications</li> <li>• Validate specific test algorithms based on actual requirements of existing products</li> <li>• Update test algorithms based on simulated results</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the test data</li> <li>• Perform test data extraction</li> <li>• Evaluate results from extracted test data</li> <li>• Recommend corrective actions for product, process, programme and equipment</li> </ul>	