

SKILLS FRAMEWORK FOR ELECTRONICS SKILLS MAP - QUALITY ENGINEER				
Sector	Electronics			
Sub-sector	Semiconductor and Data Storage			
Track	Technical and Engineering			
Occupation	Engineer			
Job Role	Quality Engineer			
Job Role Description	The Quality Engineer applies engineering principles and techniques to meet the quality targets and organisational objectives in a manufacturing environment. His/Her work also includes troubleshooting and making recommendations on quality. He needs to analyse manufacturing issues and implement network solutions for quality targets tracking.			
	In addition, the Quality Engineer leads quality improvement projects, and is expected to establish good quality control parameters in accordance with organisational objectives. He would also be required to ensure compliance with Workplace Safety and Health, and other regulatory requirements in his line.			
	The Quality Engineer is required to have strong communication skills to lead a team to meet organisational outcomes. He is expected to guide and mentor the other Engineers under his charge.			
Critical Work Functions and Key Tasks	Critical Work Functions	Key Tasks		
	Administer quality engineering	Manage calibration and measurement systems for all operations		
		Troubleshoot and make recommendations on quality issues		
		Drive calibration cost reduction activities		
		Implement network solutions for product quality improvements		
		Adopt new technologies to improve quality control		
		Develop effective corrective plans for customers on problem prevention and/or resolution		
	Conform to management system requirements	Enforce compliance of safety and good manufacturing practices and processes in production areas		
		Maintain quality assurance systems		
		Monitor quality performance data to establish good control parameters		
		Conduct internal or external audits		
		Execute benchmarked reliability test plans		
		Conduct technical presentations		
Contribute to continuous improvement	Investigate root causes of product and process failures			
	Lead continuous improvement projects			
Influence organisational development	Lead working level community to explore opportunities for improvement projects			
	Provide guidance to other engineers			
	Develop training programmes for staff			
Skills & Competencies	Technical Skills and Competencies		Generic Skills and Competencies (Top 5)	
	Audit Management	Level 4	Communication	Intermediate
	Continuous Process Improvement	Level 4	Decision Making	Intermediate
	Data Analytics Systems Design	Level 4	Leadership	Intermediate
	Data Synthesis	Level 4	Lifelong Learning	Intermediate
	Effectiveness Management	Level 4	Teamwork	Intermediate
	Electrostatic Discharge Control	Level 4		
	Embedded Systems Integration	Level 5		
	Emergency Management	Level 4		
	Enterprise Risk Management	Level 3		
	Factory Systems Management	Level 4		
	Failure Analysis	Level 4		
	Good Manufacturing Practices Implementation	Level 3		
	Hazards and Risk Control, and Policy Management	Level 4		
	Innovation Management	Level 3		
	Internet of Things (IoT) Management	Level 4		
	Learning and Development	Level 3		
	Materials Qualification	Level 5		
	Metrology Management	Level 4		
	Operations Management	Level 4		
	Product Testing	Level 4		
	Quality Control and Assurance	Level 4		
	Quality Process Control	Level 4		
	Quality Systems Management	Level 4		
Report Writing	Level 4			

	Solutioning	Level 5	
	Technical Presentations	Level 5	
	Workplace Safety and Health (WSH) Practices Implementation	Level 4	
	Yield Analysis	Level 4	
Programme Listing	For a list of Training Programmes available for the Electronics sector, please visit: www.skillsfuture.sg/skills-framework/electronics		

The information contained in this document serves as a guide.