



Australian Government

Assessment Requirements for UEEEC0054 Provide gate array solutions for complex electronics systems

Release: 1

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Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least two separate occasions and include:

- constructing, inspecting and testing circuit gate array device and circuits in accordance with design brief and regulatory requirements
- dealing with unplanned situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- designing gate array system in accordance with workplace procedures
- developing outlines of alternative designs and comparing advantages and disadvantages on each
- developing the gate array design within the safety and functional requirements and budget limitations
- documenting and presenting design effectively
- implementing relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including the use of risk control measures
- negotiating design alteration requests and obtaining approval for final gate array design system
- verifying compliance of the design against the final brief.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- gate array fundamentals
- hardware design language
- programmable logic device (PLD), including:
 - types of PLDs
 - features of complex programmable logic device (CPLD) devices
 - features of field programmable gate array (FPGA) devices
 - input/output (I/O) logic family assignment for FPGA

- relevant job safety assessments or risk mitigation processes
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace policies and procedures.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in suitable workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated suitable workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment (PPE) currently used in industry
- resources that reflect current industry practices in relation to designing and developing gate array systems
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>