



Australian Government

UEEEEC0054 Provide gate array solutions for complex electronics systems

Release: 1

UEEEEC0054 Provide gate array solutions for complex electronics systems

Modification History

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

Application

This unit involves the skills and knowledge required to design and develop electronic systems using gate array technology.

It includes working safely, following gate array design brief and interpreting device specifications, using appropriate development software, testing operation and verifying compliance of the of the design against the final brief, and documenting design and development work.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

Competency Field

Electronics and Communications

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1 Prepare to design gate array system	1.1 Work health and safety (WHS)/occupational health and safety (OHS) requirements and workplace procedures for a given work area are identified and applied

- 1.2 Operational safety procedures for a given work area are obtained and understood
 - 1.3 Extent of the proposed gate array system design and circuit development is determined from design brief or in consultation with appropriate person/s
 - 1.4 Design and circuit development work is planned to meet scheduled timelines in consultation with others involved
 - 1.5 Materials and devices/components required for the design work are selected on compatibility of their specifications with system requirements and project budget constraints
 - 1.6 Tools, equipment, software and testing devices needed to carry out the work are obtained and checked for correct operation and safety
- 2 Design and develop circuit gate array system**
 - 2.1 WHS/OHS risk control measures and workplace procedures for carrying out the design work are followed
 - 2.2 Gate array system and industry compliance standards are applied to the design
 - 2.3 Alternative arrangements for the design and circuit development are considered in accordance with the requirements outlined in the design brief
 - 2.4 Safety, functional and budget considerations are incorporated in the design
 - 2.5 Circuit device and circuits are constructed and tested for compliance with the design brief and regulatory requirements
 - 2.6 Circuit malfunctions are rectified and retested to ensure effective operation with the design
 - 2.7 Gate array system design and development is documented for submission to appropriate person/s for approval
 - 2.8 Solutions to unplanned situations are provided in accordance with workplace policies
- 3 Obtain approval for design and circuit**
 - 3.1 Gate array system design is presented and explained to client representative and/or relevant person/s

development of gate array system and documentation

- 3.2** Requests for design modifications are negotiated with relevant person/s within the constraints of workplace policies
- 3.3** Final design and circuit development are documented and approval obtained from appropriate person/s
- 3.4** Quality of work is monitored against design brief, performance agreement and/or workplace procedures or industry standards

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UEE Electrotechnology Training Package Companion Volume Implementation Guide.

Designing and developing a gate array system must include at least the following:

- three input/output (I/O) devices or functions

Unit Mapping Information

This unit replaces and is equivalent to UEENEEH189A Provide Gate Array solutions for complex electronics systems.

Links

Companion Volume implementation guides are found in VETNet - -

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