



**Australian Government**

# **MEA50718 Diploma of Avionic Engineering**

**Release: 1**

# MEA50718 Diploma of Avionic Engineering

## Modification History

Release 1. Supersedes and equivalent to MEA50715 Diploma of Avionic Engineering. Unit codes updated.

## Qualification Description

This qualification applies to individuals employed in engineering departments of manufacturers and aviation maintenance organisations in both the Civil Aviation Safety Authority (CASA) and Australian Defence Force (ADF) regulatory environments. Individuals could also be employed in Continuing Airworthiness Management Organisations (CAMOs) and in ADF Approved Engineering Organisations (AEOs). Typical jobs could be supporting professional engineers in design teams, members of airworthiness review teams, maintenance planners, spares assessors, repairable item managers and technical authors. While a direct entry training pathway is provided it must be emphasised that many of the maintenance management positions applicable to the qualification have additional experience requirements specified in airworthiness regulations and only a limited range of employment opportunities may be available to those who do not have extensive prior aviation maintenance experience.

The qualification consists of twenty-nine (29) units, of which twenty (20) are core units and the remaining nine (9) units are electives from which either three (3) or five (5) units must be selected using the unit selection guidance in the Group A table.

Credit is provided towards the MEA60518 Advanced Diploma of Avionic Engineering.

This qualification applies to workplaces that operate under the airworthiness regulatory systems of the ADF and CASA. Any regulatory/licensing requirements associated with any MEA units of competency must be met.

## Entry Requirements

Not applicable

## Packaging Rules

To be awarded the MEA50718 Diploma of Avionic Engineering, competency must be demonstrated in a total of **twenty-three (23)** or **twenty-five (25)** units of competency, consisting of:

**twenty (20)** core units

**three (3)** elective units chosen from Group A plus a further **two (2)** units if Certificate IV in Aeroskills (Avionics) is not held.

### Core units of competency

Unit code	Unit title	Prerequisites
MEA107	Interpret and use aviation maintenance industry manuals and specifications	
MEA135	Use computers in aviation maintenance-related integrated logistic support activities	
MEA142	Manage self in the aviation maintenance environment	
MEA153	Communicate aviation technical and maintenance management knowledge	
MEA154	Apply work health and safety practices in aviation maintenance	
MEA155	Plan and organise aviation maintenance work activities	MEA154
MEA156	Apply quality standards during aviation maintenance activities	MEA154, MEA107
MEA157	Complete aviation maintenance industry documentation	
MEA158	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance	
MEA201	Remove and install miscellaneous aircraft electrical hardware/components	MEA154, MEA155 MEA156, MEA107 MEA157, MEA158
MEA246	Fabricate and/or repair aircraft electrical hardware or parts	MEA201, MEA296
MEA261	Use electronic test equipment	MEA154, MEA155 MEA156, MEA107 MEA157, MEA158
MEA262	Modify/repair aircraft component single layer printed circuit boards	MEA296, MEA261

Unit code	Unit title	Prerequisites
MEA296	Use electrical test equipment in aviation maintenance activities	MEA154, MEA155 MEA156, MEA107 MEA157, MEA158
MEA706	Apply basic scientific principles and techniques in avionic engineering situations	MEM23004A
MEA708	Select and test avionic engineering materials	
MEM23004A	Apply technical mathematics	
MEM30007A	Select common engineering materials	
MEM30012A	Apply mathematical techniques in a manufacturing engineering or related environment	
MSMENV472	Implement and monitor environmentally sustainable work practices	

### Elective units of competency

#### Group A

Take **three (3)** of the following elective units selected in accordance with the guidance in column 4. If certificate IV in Aeroskills (Avionics) is not held take an additional **two (2)** units in accordance with the unit selection guidelines.

Unit code	Unit title	Prerequisites	Unit selection guidance
MEA159	Manage aircraft and aeronautical product configuration		For employment within CAMOs and AEOs
MEA162	Write aviation technical publications		For employment within CAMOs and AEOs
MEA164	Perform airworthiness management and maintenance program tasks	MEA162	For employment within CAMOs and AEOs
MEA270	Lay out avionic systems	MEA154, MEA107 MEA158	Must be taken if Certificate IV in Aeroskills (Avionics) is not

Unit code	Unit title	Prerequisites	Unit selection guidance
			held
MEA271	Lay out avionic flight management systems	MEA154, MEA107 MEA158, MEA270	Must be taken if Certificate IV in Aeroskills (Avionics) is not held
MEA702	Produce avionics engineering related graphics	MEA162, MEM30007A MEM30012A	For employment within engineering departments
MEA714	Integrate avionic fundamentals into an engineering task	MEA706 MEM23004A MEM23007A OR MEA727	For employment within engineering departments
MEA727	Apply calculus to engineering situations	MEM23004A	
MEM23007A	Apply calculus to engineering tasks	MEM23004A	For employment within engineering departments

## Qualification Mapping Information

Release 1. Supersedes and equivalent to MEA50715 Diploma of Avionic Engineering.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?docId=ce216c9c-04d5-4b3b-9bcf-4e81d0950371&n=Aeroskills%20Training%20Package>