



Australian Government

Assessment Requirements for ICTRFN801 Produce a radio link budget

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- analyse signal degradation characteristics of radio paths and calculate power budgets for various distances and antenna heights versus transmitted power
- research constraints imposed by mobile phone frequency allocations and simulate carrier to interference radiation patterns around a cell site
- create evaluation report on radio system performance
- document processes used to determine power link budget.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- explain high frequency (HF), very high frequency (VHF), ultra high frequency (UHF) and microwave receiving techniques
- summarise modulation methods:
 - AM
 - FM
 - digital
- outline multiplexing systems
- summarise operation of transmitters and receivers
- explain organisational policies and procedures
- summarise personal safety issues
- explain propagation methods
- summarise radio communications systems
- weigh factors affecting radio frequency (RF) path loss
- summarise RF technologies.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances should be typical of those experienced in the Telecommunications – Radio Frequency Networks industry and include access to:

- a telecommunications operations site
- mobile telephony devices and equipment
- networked computers and relevant software.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>