

Domain**BROADCASTING****Title:****Demonstrate an understanding of operational principles and circuit theory of satellite and digital television decoders****Level: 4****Credits: 6****Purpose**

This unit standard is intended for those who demonstrate an understanding of operational principles and circuit theory of satellite and digital television decoders. People credited with this unit standard are able to demonstrate an understanding of the principles of television signal transmission and reception, and demonstrate an understanding of signal processing in satellite and digital television decoders.

This unit standard is intended for those who work in the broadcasting working environment.

Special Notes

1. Entry information:

Prerequisites:

- None

2. This unit standard is to be delivered and assessed in the context of information and communication technology.

3. Assessment evidence may be collected from a real or a simulated workplace in which broadcasting operations are carried out.

4. Tools and equipment may include but are not limited to computer, external devices, storage devices and other and basic computer applications.

5. Performance of all elements in this unit standard must comply with industry standards.

6. Regulations and legislation relevant to this unit standard include the following:

- Labour Act 2007(Act No 11, 2007)
- Regulations relating to the health and safety of employees at work under schedule 1 (2) of the Labour Act No.11 of 2007 and all subsequent amendments

Quality Assurance Requirements

This unit standard and others within this subfield may be awarded by institutions which meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with the national assessment and moderation requirements. Details of specific accreditation requirements and the

national assessment arrangements are available from the Namibia Qualifications Authority and the Namibia Training Authority on www.nta.com.na

Elements and Performance Criteria

Element 1: Demonstrate an understanding of the principles of television signal transmission and reception

Performance Criteria

- 1.1 Transmission principles and reception of analog television sound and vision signals are identified and explained.
- 1.2 Frequency bands and channel bandwidths of satellites and terrestrial digital television are described.
- 1.3 Principles of transmission of digital television sound and vision signals are identified and explained.

Element 2: Demonstrate an understanding of signal processing in satellite and digital television decoders

Performance Criteria

- 2.1 Signal processing in satellite and digital television decoders is explained.
- 2.2 Functions of signal processing stages in a satellite and analogue decoder are identified and explained from a given block diagram on board level.
- 2.3 Functions of signal processing stages in a satellite decoder are identified and explained from a given circuit diagram on component level.
- 2.4 Functions of the signal processing stages in a digital decoder are identified and explained from a given block diagram on board level.
- 2.5 Functions of the signal processing stages in a digital decoder are identified and explained from a given circuit diagram on component level.

Registration Data

Subfield:	Information and Communication Technology
Date first registered:	30 July 2020
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Body responsible for review:	Namibia Training Authority