

Domain TELECOMMUNICATION AND WIRELESS TECHNOLOGY**Title: Demonstrate an understanding of Voltage Standing Wave Ratio (VSWR), radio measurements and frequency bands****Level: 5****Credits: 11****Purpose**

This unit standard is intended for those who demonstrate an understanding of Voltage Standing Wave Ratio (VSWR) , radio measurements and frequency bands .people credited with this unit standard are able to explain and perform Voltage Standing Wave Ratio (VSWR), demonstrate an understanding of radio frequency measurement, demonstrate an understanding of types of frequency band.

This unit standard is intended for those who work in the telecommunication and wireless technology 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 telecommunication and wireless technology 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 & 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 sub-field 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 on www.namqa.org and the Namibia Training Authority on www.nta.com.na

Elements and Performance Criteria

Element 1: Explain and perform Voltage Standing Wave Ratio (VSWR)

Performance Criteria

- 1.1 Measurement of VSWR are explained and performed.
- 1.2 Impedance of transmission line is illustrated.
- 1.3 VSWR and System efficiency is demonstrated.

Element 2: Demonstrate an understanding of Radio Frequency Measurement (RFM)

Performance Criteria

- 2.1 Radio carrier signal output power is performed.
- 2.2. Radio carrier signal sweep is illustrated.

Element 3: Demonstrate an understanding of frequency bands

Performance Criteria

- 3.1 Cellular frequency bands are illustrated.
- 3.2 Broadcasting frequency bands are explained.
- 3.3 Radio spectrum bands are illustrated.
- 3.4 Optical frequency is explained.

Registration Data

Subfield:	Information and Communication Technology
Date first registered:	30 July 2020
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Anticipated review:	2025
Body responsible for review:	Namibia Training Authority