



TECHNICAL SPECIFICATION

FOR

EQUIPMENT CONNECTING TO THE ANALOGUE PSTN

ISSUED BY

**BOTSWANA COMMUNICATIONS REGULATORY
AUTHORITY**

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Technical Specification for Equipment Connecting to the Analogue PSTN

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Scope

This specification applies to any equipment which offers an interface that may be directly connected to an Analogue Public Switched Telephone Network (PSTN) interface of any public network in Botswana.

Where terminal equipment supports more than one interface type, each interface must meet the requirements applicable to it. It may therefore be necessary to make reference to additional specifications.

Entry into Force

This specification shall enter into force on 15/01/2016.

Document History

Description	Status	Date
Equipment Connecting to the Analogue PSTN	Original V1.1	11/12/2015

Health, Safety, and Generic Emissions

The following universal specifications shall be applied.

TS0001: Health, Safety and Generic Emissions of Radio and Telecommunications Terminal Equipment.

Technical, Spectrum and EMC Requirements

The following specifications shall be applied.

ETSI TBR 021 ed.1

Terminal Equipment (TE); Attachment requirements for pan-European approval for connection to the analogue Public Switched Telephone Networks (PSTNs) of TE (excluding TE supporting the voice telephony service) in which network addressing, if provided, is by means of Dual Tone Multi Frequency (DTMF) signalling

Or

ETSI ES 203 021 –1 V.2.1.1

Access and Terminals (AT); Harmonized basic attachment requirements for Terminals for connection to analogue interfaces of the Telephone Networks; Update of the technical contents of TBR 021, EN 301 437, TBR 015, TBR 017; Part 1: General aspects

ETSI ES 203 021 –2 V2.1.2

Access and Terminals (AT); Harmonized basic attachment requirements for Terminals for connection to analogue interfaces of the Telephone Networks; Update of the technical contents of TBR 021, EN 301 437, TBR 015, TBR 017; Part 2: Basic transmission and protection of the network from harm

ETSI ES 203 021 –3 V2.1.2

Access and Terminals (AT); Harmonized basic attachment requirements for Terminals for connection to analogue interfaces of the Telephone Networks; Update of the technical contents of TBR 021, EN 301 437, TBR 015, TBR 017; Part 3: Basic Interworking with the Public Telephone Networks

Additional requirements

Pulse Dialling

For products that offer Pulse or Loop Disconnect dialling, the performance shall be in conformance with **ETSI ES201 187**.

ETSI ES 201 187 V1.1.1

2-wire analogue voice band interfaces; Loop Disconnect (LD) dialling specific requirements

Analogue Voice

Analogue telephones and other equipment which offer analogue handset telephony such as modems or fax machines shall comply with:

ETSI EN 300 659-2 V1.3.1

Access and Terminals (AT); Analogue access to the Public Switched Telephone Network (PSTN); Subscriber line protocol over the local loop for display (and related) services; Part 2: Off-hook data transmission

ETSI ES 200 778-2 V1.2.2

Access and Terminals (AT); Analogue access to the Public Switched Telephone Network (PSTN); Protocol over the local loop for display and related services; Terminal equipment requirements; Part 2: Off-hook data transmission

ETSI ES 201 235-3 V1.3.1

Access and Terminals (AT); Specification of Dual-Tone Multi-Frequency (DTMF) Transmitters and Receivers; Part 3: Receivers

ETSI ES 201 912 V1.2.1

Access and Terminals (AT); Short Message Service (SMS) for PSTN/ISDN; Short Message Communication between a fixed network Short Message Terminal Equipment and a Short Message Service Centre

ETSI TBR 038 ed.1

Public Switched Telephone Network (PSTN); Attachment requirements for a terminal equipment incorporating an analogue handset function capable of supporting the justified case service when connected to the analogue interface of the PSTN in Europe

Caller Line Identification (CLI)

Products which offer CLI, should recognize DTMF signalling in accordance with the following standard:

ETSI ES 201 235-1-V1.1.1

Specification of Dual Tone Multi-Frequency (DTMF) Transmitters and Receivers; Part 1: General

ETSI ES 203 021 –1 V.2.1.1

Access and Terminals (AT); Harmonized basic attachment requirements for Terminals for connection to analogue interfaces of the Telephone Networks; Update of the technical contents of TBR 021, EN 301 437, TBR 015, TBR 017; Part 1: General aspects

ETSI ES 203 021 –2 V2.1.2

Access and Terminals (AT); Harmonized basic attachment requirements for Terminals for connection to analogue interfaces of the Telephone Networks; Update of the technical contents of TBR 021, EN 301 437, TBR 015, TBR 017; Part 2: Basic transmission and protection of the network from harm

ETSI ES 203 021 –3 V2.1.2

Access and Terminals (AT); Harmonized basic attachment requirements for Terminals for connection to analogue interfaces of the Telephone Networks; Update of the technical contents of TBR 021, EN 301 437, TBR 015, TBR 017; Part 3: Basic Interworking with the Public Telephone Networks

Important Note: The revision numbers of the documents given in the approval standard are the minimum standards that apply. Should updated versions of these documents be published, the latest version will always apply. This also applies to documents where no revision number is currently quoted.

Obtaining Technical Standards

ETSI technical standards may be obtained free of charge for individual use from the ETSI web site. www.etsi.org

CENELEC, IEC and CISPR standards may be obtained at cost from, or through www.cenelec.org and from www.iec.ch respectively.