



# **TECHNICAL SPECIFICATION**

**FOR**

**ANALOGUE PMR HANDSETS AND ANCILLARY  
EQUIPMENT**

**ISSUED BY**

**BOTSWANA TELECOMMUNICATIONS AUTHORITY**

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# Technical Specification for Analogue PMR Handsets and ancillary equipment

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## Scope

This specification applies to all Analogue PMR handsets and ancillary equipment to be used 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 01/12/12.

## Document History

Description	Status	Date
First issue of type approval guidelines	Draft	2005
Second issues of type approval guidelines	Current	2007
Third issue of type approval	Revision 1	2012

## Spectrum Allocation

The frequency bands 446-446.1 have been allocated for use by analogue PMR handsets and ancillary equipment in Botswana

## Safety and EMC requirements

The following specifications shall be applied:

TS0001: Safety and EMC requirements of radio and telecommunications terminal equipment.

## Technical requirements

The following specifications shall be applied.

**ETSI EN 300 086-1 (2010-06)**

Electromagnetic compatibility and Radio spectrum Matters (ERM);  
Land Mobile Service; Radio equipment with an internal or external RF  
connector intended primarily for analogue speech; Part 1: Technical  
characteristics and methods of measurement

**ETSI EN 300 113**

Electromagnetic compatibility and Radio spectrum Matters (ERM);  
Land mobile Service; Radio equipment intended for transmission of  
data (and speech) and having an antenna connector; Part 1: Technical  
characteristics and methods of measurement

**ETS 300 296-1 (2010-07)**

Electromagnetic compatibility and Radio spectrum Matters (ERM);  
Land Mobile Service; Radio equipment using integral antennas  
intended primarily for analogue speech; Part 1: Technical  
characteristics and methods of *measurement*

**ETS 300 339**

Electromagnetic compatibility and Radio spectrum Matters (ERM);  
General Electromagnetic Compatibility (EMC) for radio  
communications equipment

**ETSI EN 300 390**

Electromagnetic compatibility and Radio spectrum Matters (ERM);  
Land mobile service; technical characteristics and test conditions for  
radio equipment intended for the transmission of data (and speech)  
and using an integral antenna

**ETSI EN 300 471**

Electromagnetic compatibility and Radio spectrum Matters (ERM);  
Land Mobile Service; Rules for access and the sharing of common  
used channels by equipment complying with EN 300 113; Part 1:  
Technical characteristics and methods of measurement

**ETSI EN 301 489-1**

Electromagnetic compatibility and Radio spectrum Matters (ERM);  
Electromagnetic Compatibility (EMC) standard for radio equipment and  
services; Part 1: Common technical requirements

**ETSI EN 301 489-5**

Electromagnetic compatibility and Radio spectrum Matters (ERM);  
Electromagnetic Compatibility (EMC) standard for radio equipment and  
services; Part 5: Specific conditions for Private land Mobile Radio  
(PMR) and ancillary equipment (speech and non-speech)

**ETSI EN 300 793**

Electromagnetic compatibility and Radio spectrum Matters (ERM);  
Land mobile service; Presentation of equipment for type testing

**ANSI/TIA/EIA 603 (specific to US originated equipment only)**

Land mobile FM or PM communication equipment, measurement and performance standard

**MPT 1327**

A signalling standard for Trunked Private Land Mobile Radio Systems

Where no issue or revision number is quoted along with the title of a technical specification, the latest published version should be used.

## **Additional requirements**

All necessary auxiliary test equipment, setting up instructions and other product information shall accompany the equipment to be type approved. The provisions of the present document apply to radio and associated ancillary equipment intended for use in the land mobile service that means to Private Mobile Radio (PMR) equipment.

## **Obtaining Technical standards**

ETSI technical standards may be obtained free of charge for individual use from the ETSI web site. [www.etsi.org](http://www.etsi.org)