

CST Technical Specification

Specification for TETRA Handsets and Ancillary Equipment

Document Number: RI011
Revision: Issue 04
Date: October 2023

This technical specification is issued by The Communications, Space and Technology Commission in the Kingdom of Saudi Arabia in accordance with the provisions of the Communications and Information Technology Act issued by Royal Decree No. (M/106) dated 02/11/1443 AH and its bylaw, and the Commission's regulation.

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Document History Table

Version	Issue Date	Description
Issue 1	March 2006	
Issue 2	January 2010	
Issue 3	July 2021	
Issue 4	October 2023	

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1- Scope

- 1-1 This specification applies to Terrestrial Trunked Radio TETRA Handsets and ancillary equipment.

2- Enforcement

- 2-1 This specification shall enter into force from issue date.
- 2-2 Any previous version of this technical specification is withdrawn.

3- General Requirements

- 3-1 All equipment must comply with the requirement of CST specification GEN001, be safe and must not adversely affect other electrical equipment.
- 3-2 All telecommunications and radio terminal equipment must comply with the relevant technical specifications established by CST. In addition, such equipment may be subject to regulations for Declaration of Conformity or registration. Please visit CST website for details.
- 3-3 If more than one interface type is offered by a piece of equipment, each interface must meet the applicable technical specifications.
- 3-4 Further information on the characteristics and presentation of network interfaces can be obtained by coordinating with the mobile network operators.
- 3-5 It is mandatory that test reports are obtained from a laboratory that has been accredited by a body that is a member of the ILAC Mutual Recognition Arrangement.

4- Limits and conditions

Testing should be carried out to ensure compliance with the listed specifications.

Frequency band	Max Output Power or Magnetic Field	Usage	Standard	Comments
350 - 370 MHz	Subject to licensing	TETRA	EN 300 086 EN 302 561 EN 303 035-1 EN 303 035-2 EN 300 394-1 EN 301 489-1 EN 301 489-5 EN301 489-18	Up- and downlink
380 - 390 MHz	Subject to licensing	TETRA	EN 300 086 EN 302 561 EN 303 035-1 EN 303 035-2 EN 300 394-1 EN 301 489-1 EN 301 489-5 EN 301 489-18	Up- and downlink
410 - 420 MHz	Subject to licensing	TETRA	EN 300 086 EN 302 561 EN 303 035-1 EN 303 035-2 EN 300 394-1 EN 301 489-1 EN 301 489-5 EN 301 489-18	Up- and downlink
450 - 460 MHz	Subject to licensing	TETRA	EN 300 086 EN 302 561 EN 303 035-1 EN 303 035-2 EN 300 394-1	Up- and downlink

			EN 301 489-1 EN 301 489-5 EN 301 489-18	
870 - 876 MHz	Subject to licensing	TETRA	EN 300 086 EN 302 561 EN 303 035-1 EN 303 035-2 EN 300 394-1 EN 301 489-1 EN 301 489-5 EN 301 489-18	Up- and downlink

5-Licensing Requirements

A spectrum license is required.

6-Additional Requirements

There is no additional requirements for this technical specification.

7-References

The following referenced documents are indispensable for the application of this document. If no issue or revision number is quoted along with the title of a technical specification or standard, the latest published version should be used.

EN 300 086

Land Mobile Service; Radio equipment with an internal or external RF connector intended primarily for analogue speech; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU

EN 302 561

Land Mobile Service; Radio equipment using constant or non-constant envelope modulation operating in a channel bandwidth of 25 kHz, 50 kHz, 100 kHz or 150 kHz.

ETSI EN 303 035-1

Terrestrial Trunked Radio (TETRA); Part 1: Voice plus Data (V+D)

ETSI EN 303 035-2

Terrestrial Trunked Radio (TETRA); Part 2: Direct Mode Operation (DMO)

ETSI EN 300 394-1

Terrestrial Trunked Radio (TETRA); Conformance testing specification: Part 1: Radio

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.

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).

EN 301 489-18

Electromagnetic compatibility and Radio spectrum Matters (ERM);
Electromagnetic Compatibility (EMC) standard for radio equipment and
services; Part 18: Specific conditions for Terrestrial Trunked Radio (TETRA)
equipment