هيئة الاتصالات والفضاء والتقنية
Communications, Space & Technology Commission

CST Technical Specification

Specification for Mobile Satellite Service (MSS) and Ancillary Equipment

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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	Feb 2024	

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1- Scope

1-1 This specification applies to Mobile Satellite Service (MSS) terminals operating at frequencies below or above 1 GHz and ancillary equipment.

1-2 The MSS is a radio communication service between mobile stations located on the earth and one or more space stations.

2- Enforcement

1-1 This specification shall enter into force from issue date.

1-2 Any previous version of this technical specification is withdrawn.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 www.CST.gov.sa 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 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 (MHz)	Max Output Power or Magnetic Field	Usage	Standard	Comments
Below 1 GHz	Subject to licensing	MSS	EN 301 721 EN 301 489-1 EN 301 489-20	
Above 1 GHz	Subject to licensing	MSS	EN 301 426 EN 301 427 EN 301 444 EN 302 574 EN 301 489-1 EN 301 489-20	

5- Licensing Requirements

5-1 Obtaining one of the following permits is required for the general category license:

5-2-1 Provisioning of Telecommunication Services Over Non-terrestrial Networks (NTN)

5-2-2 Provisioning of Operation Services of Non-terrestrial Networks (NTN)

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 301 721

Satellite earth stations and systems (SES); Harmonised EN for mobile earth stations (MES) providing low bit rate data communications (LBRDC) using low earth orbiting (LEO) satellites operating below 1GHz covering essential requirements under Article 3(2) of the R&TTE directive.

EN 301 426

Satellite earth stations and Systems (SES); Harmonised EN for low data rate land mobile satellite earth stations (LMES) operating in the 1.5/1.6 GHz frequency bands covering essential requirements under Article 3(2) of the R&TTE directive.

EN 301 427

Satellite Earth stations and Systems (SES); Harmonised EN for low data rate land mobile satellite earth stations (LMES) operating in the 11/12/14 GHz frequency bands covering essential requirements under Article 3(2) of the R&TTE directive.

EN 301 473

Satellite Earth Stations and Systems (SES); Harmonised Standard for Aircraft Earth Stations (AES) providing Aeronautical Mobile Satellite Service (AMSS)/Mobile Satellite Service (MSS) and/or the Aeronautical Mobile Satellite on Route Service (AMS(R)S)/Mobile Satellite Service

(MSS), operating in the frequency band below 3 GHz covering the essential requirements of article 3.2 of the Directive 2014/53/EU

EN 301 444

Satellite Earth stations and Systems (SES); Harmonised EN for Land Mobile Earth Stations (LMES) operating in the 1.5 GHz and 1.6 GHz bands providing voice and /or data communications covering essential requirements under article 3.2 of the R&TTE directive.

EN 302 574-1

Satellite Earth Stations and Systems (SES); Harmonised Standard for Mobile Earth Stations (MES) operating in the 1 980 MHz to 2 010 MHz (earth-to-space) and 2 170 MHz to 2 200 MHz (space-to-earth) frequency bands covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 1: Complementary Ground Component (CGC) for wideband systems

EN 302 574-2

Satellite Earth Stations and Systems (SES); Harmonised Standard for Mobile Earth Stations (MES) operating in the 1 980 MHz to 2 010 MHz (earth-to-space) and 2 170 MHz to 2 200 MHz (space-to-earth) frequency bands covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 2: User Equipment (UE) for wideband systems

EN 302 574-3

Satellite Earth Stations and Systems (SES); Harmonised Standard for Mobile Earth Stations (MES) operating in the 1 980 MHz to 2 010 MHz (earth-to-space) and 2 170 MHz to 2 200 MHz (space-to-earth) frequency bands covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 3: User Equipment (UE) for narrowband systems

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 301 489-20

Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 20: Specific condition for Mobile Earth Stations (MES) used in the Mobile Satellite Services (MSS).