

अनिवार्य आवश्यकताएँ

संख्या : TEC40162111

Essential Requirements

ER No. : TEC40162111

SIM

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MTCTE के तहत जारी:

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दूरसंचार अभियांत्रिकी केंद्र

भारत सरकार

खुर्शीद लाल भवन, जनपथ, नई दिल्ली - 110001, भारत

Telecommunication Engineering Centre

Government of India

Khurshid Lal Bhawan, Janpath, New Delhi-110001, INDIA

Essential Requirements for:

SIM

Certification Scheme: **GCS**

Product Fee Group: **C**

This document lays down the ER under MTCTE notified by GoI vide Gazette Notification No. G.S.R. 113 (E) dated 5-09-2017 for SIM to be used in Indian Telecom Network.

The document defines mandatory testing requirements for certification under

Note: Annexures referred to in this ER are Annexures as mentioned in "Annexures to ERs" No. TEC/SD/DD/TCP-222/02/June19 as updated from time to time and available on MTCTE portal.

This product has the following variants:

1. CSIM
2. eSIM
3. eUICC
4. RUIM
5. SIM
6. UICC based ISIM
7. USIM

1. Variant 1 : CSIM

1.1 Parameters Linked with Product Variant

S.No.	Parameter Name	Standard Name
1.1.1	Administrative commands for telecommunications applications in Integrated Circuit Cards (ICC) CSIM	Clause 6 of ETSI TS 102 222 Release 7 and above
1.1.2	Card size and contact locations CSIM	Clause 4 of ETSI TS 102 221 V11.1.0.

1.1.3	EVDO Procedure CSIM	Clause 3.4.1 3.5.3 of 3GPP2 C. S. 0023Dv 1.0
1.1.4	Interface protocols CSIM	Clause 7A 3GPP TS 31.101 (Rel.12 and above)
1.1.5	Minimum application clock frequency CSIM	Clause 6 of 3GPP TS 31.101 (Rel.12 and above)
1.1.6	OTASP PA MS Key Exchange CSIM	Clause 4.3.2.2 of 3GPP2 C. S. 0023Dv 1.0 and clause 5.1 of 3GPP2 C.S. 0016Dv1.0
1.1.7	OTASP PA NAM Parameter CSIM	Clause 3.5.2 of 3GPP2 C.S. 0016Dv1.0
1.1.8	OTASP PA SPC CSIM	Clause 4.5.4 of 3GPP2 C.S. 0016Dv1.0
1.1.9	OTASP PA SSPR OTAPA request CSIM	Clause 3.3.7 of 3GPP2 C.S. 0016Dv1.0
1.1.10	OTASP PA SSPR Parameter CSIM	Clause 3.5.3 of 3GPP2 C.S. 0016Dv1.0
1.1.11	Over the air Service Provisioning and parameter administration (OTASP PA) CSIM	Clause 9.4.1 3GPP2 C. S. 0065Bv 1.0
1.1.12	Physical and Logical Characteristics CSIM	Clause 4 of ETSI TS 102 221 Rel 12
1.1.13	Security mechanisms for the (U)SIM application toolkit Stage 2 CSIM	Clause 5 6 7 8 9 of 3GPP TS 23.048 (Release v5.9.0 and above)
1.1.14	Security mechanisms for the SIM Application Toolkit Stage 1 CSIM	Clause 5 6 7 of ETSI TS 101 180 (GSM 02.48 version 8.0.0) (Release 1999)
1.1.15	Security mechanisms for the SIM application toolkit Stage 2 CSIM	Clause 4 of 3GPP2. C. S0016-Dv1.0
1.1.16	SIM Application CSIM	Clause 6 Clause 10 of 3GPP TS 51.014 (Release 4 and above)
1.1.17	SIM shall support special SSD (Supplementary Secure Domain) for SIM based apps.	Clause 7.2 of Global Platform Specifications of SIM Alliance Forum Version 2.1.1 or higher
1.1.18	Subscriber Identity Module Application Programming Interface (SIM API) for Java Card™ Stage 2 CSIM	Clause 6 7 of 3GPP TS 43.019 (Release V5.6.0 and above)
1.1.19	Subscriber Identity Module Application Programming Interface (SIM API) Stage 1 CSIM	Clause 5 6 7 8 9 10 of 3GPP TS 02.19 (Release 1999)
1.1.20	Transmission Speed CSIM	Clause 5.1 of 3GPP TS 31.101 (Rel.12 and above)

1.1.21	Voltage classes (Class A Class B Class C at least two consecutive classes e.g. AB or BC) CSIM	Clause 5A of 3GPP TS 31.101 (Rel.12 and above)
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1.2 Interface 1 : CSIM ME

S.No.	Parameter Name	Standard Name
1.2.1	Specification of the CDMA Subscriber Identity Module to Mobile Equipment (CSIM ME) interface	Clause 5 of 3GPP2 C. S0065Bv1.0
1.2.2	Specification of the Removable user Identity Module to Mobile Equipment (RUIM ME) interface	3GPP2 C. S0023Dv1.0

2. Variant 2 : eSIM

2.1 Parameters Linked with Product Variant

S.No.	Parameter Name	Standard Name
2.1.1	Answer to reset Content eSIM	Clause 6.3 Of 3GPP TS 102 671 (Rel.9 and above)
2.1.2	Physical and Logical Characteristics eSIM	Clause 6 of ETSI TS 102 671 Rel 9
2.1.3	Voltage classes eSIM	Clause 7.1 Of 3GPP TS 102 671 and clause 6.2 of ETSI TS 102 221 Rel 9 and above

2.2 Interface 1 : Pre-personalised Profiles CSIM

S.No.	Parameter Name	Standard Name
2.2.1	Pre-personalised Profiles CSIM	clause 5 of 3GPP2 C. S 0065-B and above

2.3 Interface 2 : Pre-personalised Profiles eSIM

S.No.	Parameter Name	Standard Name
2.3.1	Pre-personalised Profiles eSIM	Clause 4 5 of TS 131 102 Rel 6 and above

2.4 Interface 3 : Pre-personalised Profiles ISIM

S.No.	Parameter Name	Standard Name
2.4.1	Pre-personalised Profiles ISIM	Clause 4 of TS 131 103 Rel 5 and above

2.5 Interface 4 : Pre-personalised Profiles RUIM

S.No.	Parameter Name	Standard Name
2.5.1	Pre-personalised Profiles RUIM	Clause 3 of 3GPP2 C. S0023-D and above

2.6 Interface 5 : Pre-personalised Profiles SIM

S.No.	Parameter Name	Standard Name
2.6.1	Pre-personalised Profiles SIM	Clause 10 of TS 51.011

2.7 Interface 6 : Pre-personalised Profiles USIM

S.No.	Parameter Name	Standard Name
2.7.1	Pre-personalised Profiles USIM	Clause 4 5 of TS 131 102 Rel 6 and above

3. Variant 3 : eUICC

3.1 Parameters Linked with Product Variant

S.No.	Parameter Name	Standard Name
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3.2 Interface 1 : Pre-personalised Profiles CSIM

S.No.	Parameter Name	Standard Name
3.2.1	Pre-personalised Profiles CSIM	clause 5 of 3GPP2 C. S 0065-B and above

3.3 Interface 2 : Pre-personalised Profiles eSIM

S.No.	Parameter Name	Standard Name
3.3.1	Pre-personalised Profiles eSIM	Clause 4 5 of TS 131 102 Rel 6 and above

3.4 Interface 3 : Pre-personalised Profiles ISIM

S.No.	Parameter Name	Standard Name
3.4.1	Pre-personalised Profiles ISIM	Clause 4 of TS 131 103 Rel 5 and above

3.5 Interface 4 : Pre-personalised Profiles RUIM

S.No.	Parameter Name	Standard Name
3.5.1	Pre-personalised Profiles RUIM	Clause 3 of 3GPP2 C. S0023-D and above

3.6 Interface 5 : Pre-personalised Profiles SIM

S.No.	Parameter Name	Standard Name
3.6.1	Pre-personalised Profiles SIM	Clause 10 of TS 51.011

3.7 Interface 6 : Pre-personalised Profiles USIM

S.No.	Parameter Name	Standard Name
3.7.1	Pre-personalised Profiles USIM	Clause 4 5 of TS 131 102 Rel 6 and above

4. Variant 4 : RUIM

4.101 Parameters Linked with Product Variant

S.No.	Parameter Name	Standard Name
4.1.1	Card size and contact locations RUIM	Clause 4 of ETSI TS 102 221 V11.1.0.
4.1.2	EVDO Procedure RUIM	Clause 3.4.1 3.5.3 of 3GPP2 C. S. 0023Dv 1.0
4.1.3	Interface protocols RUIM	Clause 7A of 3GPP TS 31.101 (Rel.5 and above)
4.1.4	Minimum application clock frequency RUIM	Clause 6 of 3GPP TS 31.101 (Rel.5 and above)
4.1.5	OTASP PA MS Key Exchange RUIM	Clause 4.3.2.2 of 3GPP2 C. S. 0023Dv 1.0 and clause 5.1 of 3GPP2 C.S. 0016Dv1.0
4.1.6	OTASP PA NAM Parameter RUIM	Clause 4.5 of 3GPP2 C. S. 0023Dv 1.0 and clause 3.5.2 of 3GPP2 C.S. 0016Dv1.0
4.1.7	OTASP PA SPC RUIM	Clause 4.3.2.6 of 3GPP2 C. S. 0023Dv 1.0 and clause 4.5.4 of 3GPP2 C.S. 0016Dv1.0
4.1.8	OTASP PA SSPR OTAPA request RUIM	Clause 4.5 of 3GPP2 C. S. 0023Dv 1.0 and clause 3.3.7 of 3GPP2 C.S. 0016Dv1.0
4.1.9	OTASP PA SSPR Parameter RUIM	Clause 4.5 of 3GPP2 C. S. 0023Dv 1.0 and clause 3.5.3 of 3GPP2 C.S. 0016Dv1.0
4.1.10	Over the air Service Provisioning and parameter administration (OTASP PA) RUIM	Clause 4.5 of 3GPP2 C. S. 0023Dv 1.0
4.1.11	Over the air Service provisioning and Parameter Admonition (OTASP PA) RUIM	Clause 4 of 3GPP2 C. S0016-Dv1.0

4.1.12	Passive authentication (RUIM)	Clause 7 of 3GPP TS 51.011 Release 4
4.1.13	Physical Electrical and Logical Interfaces (RUIM)	Clause 2 of 3GPP2 C. S. 0023Dv 1.0
4.1.14	Physical and Logical Characteristics RUIM	Clause 4 Of 3GPP TS 51.011 (Rel.4 and above)
4.1.15	Security mechanisms for the SIM application toolkit Stage 2 RUIM	Clause 5 of 3GPP TS 03.48 (Release 1999)
4.1.16	Security mechanisms for the SIM Application Toolkit Stage 1 RUIM	Clause 5 Clause 6 Of ETSI TS 101 180 Rel 8 (GSM 02.48 version 8.0.0) (Release 1999)
4.1.17	SIM Application RUIM	3GPP TS 51.014 (Release 4 and above)
4.1.18	Transmission Speed RUIM	Clause 5.1 of 3GPP TS 31.101 (Rel.5 and above)
4.1.19	Voltage classes (Class A Class B Class C at least two consecutive classes eg AB or BC) RUIM	Clause 5A of 3GPP TS 31.101 (Rel.5 and above)

5. Variant 5 : SIM

5.1 Parameters Linked with Product Variant

S.No.	Parameter Name	Standard Name
5.1.1	Card size and contact locations SIM	Clause 4 of ETSI TS 102 221 V11.1.0.
5.1.2	Interface protocols SIM	Clause 7A of 3GPP TS 31.101 (Rel.5 and above)
5.1.3	Minimum application clock frequency SIM	Clause 6 of 3GPP TS 31.101 (Rel.5 and above)
5.1.4	Network Security (at least but not limited to A3 A8 algorithm) SIM	Clause 7.1 7.2 of 3GPP TS 51.011 Release 4
5.1.5	Passive authentication SIM	Clause 7 of 3GPP TS 51.011 Release 4
5.1.6	Physical and Logical Characteristics SIM	Clause 4 Of 3GPP TS 31.101 (Rel.5 and above)
5.1.7	Read or Update access to NVM controlled by Operating System and Issuer application SIM	ISO 7816 4 Clause 9.2 of 3GPP TS 51.011 Release 4
5.1.8	Security mechanisms for the SIM Application Toolkit Stage 1	Clause 5 Clause 6 of ETSI TS 101 180 Release 8 (GSM 02.48 version 8.0.0)

		(Release 1999)
5.1.9	Security mechanisms for the SIM application toolkit Stage 2	Clause 5 6 7 8 9 of 3GPP TS 03.48 (Release 1999)
5.1.10	SIM Application	3GPP TS 51.014 (Release 4 and above)
5.1.11	SIM shall support special SSD (Supplementary Secure Domain) for SIM based apps.	Clause 7.2 of Global Platform Specifications of SIM Alliance Forum Version 2.1.1 or higher
5.1.12	Subscriber Identity Module Application Programming Interface (SIM API)	Clause 7 Clause 8 Clause 9 of 3GPP TS 02.19 (Release 1999)
5.1.13	Subscriber Identity Module Application Programming Interface (SIM API) for Java Card TM	Clause 6 Clause 7 of 3GPP TS 43.019 (Release V5.6.0 and above)
5.1.14	Transmission Speed SIM	Clause 5.1 of 3GPP TS 31.101 (Rel.5 and above)
5.1.15	Voltage classes (Class A Class B Class C at least two consecutive classes eg AB or BC) SIM	Clause 5A of 3GPP TS 31.101 (Rel.5 and above)

5.2 Interface 1 : SIM ME

S.No.	Parameter Name	Standard Name
5.2.1	Software Components shall include Operating System and SIM Tool Kit Applications	Clause 6 Clause 9 of 3GPP TS 51.011 Release 4 or higher. Clause 4 Clause 5 of 3GPP TS 51.014 Rel 4 or Higher
5.2.2	Specification of the Subscriber Identity Module Mobile Equipment (SIM ME) interface	ISO-7816-4 3GPP TS 51.011 Release 4 or higher.

6. Variant 6 : UICC based ISIM

6.101 Parameters Linked with Product Variant

S.No.	Parameter Name	Standard Name
6.1.1	Administrative commands for telecommunications applications in Integrated Circuit Cards (ICC) ISIM	Clause 6 of ETSI TS 102 222 Release 5 and above
6.1.2	Card size and contact locations ISIM	Clause 4 Clause 4.5 of ETSI TS 102 221

		V11.1.0.
6.1.3	Interface protocols ISIM	Clause 5.4 of 3GPP TS 31.101 101 (Rel.8 and above)
6.1.4	Minimum application clock frequency ISIM	Clause 5.3.1 of 3GPP TS 31.101 (Rel.8 and above)
6.1.5	Physical and Logical Characteristics ISIM	Clause 4A 5 of 3GPP TS 31.101 (Rel.8 and above)
6.1.6	Security mechanisms for the (U)SIM application toolkit Stage 2 ISIM	Clause 5 6 7 8 9 of 3GPP TS 23.048 (Release v5.9.0 and above)
6.1.7	Security mechanisms for the SIM Application Toolkit Stage 1 ISIM	Clause 5 6 7 of ETSI TS 101 180 (GSM 02.48 version 8.0.0) (Release 1999)
6.1.8	SIM shall support special SSD (Supplementary Secure Domain) for SIM based apps ISIM.	Clause 7.2 of Global Platform Specifications of SIM Alliance Forum version 2.1.1 or higher
6.1.9	Support for PIN and PUK Characteristics of the IP Multimedia Services Identity Module (ISIM) application	ISO7816 4 Clause 9 of ETSI TS 102 221 Rel 13
6.1.10	Transmission Speed ISIM	Clause 5.1 of 3GPP TS 31.101 (Rel.8 and above)
6.1.11	Voltage classes (Class A Class B Class C at least two consecutive classes e.g. AB or BC) ISIM	Clause 5.2 Clause 5A of 3GPP TS 31.101 (Rel.8 and above)

7. Variant 7 : USIM

7.1 Parameters Linked with Product Variant

S.No.	Parameter Name	Standard Name
7.1.1	Administrative commands for telecommunications applications in Integrated Circuit Cards (ICC) USIM	Clause 6 of ETSI TS 102 222 Release 7 and above
7.1.2	Card size and contact locations RUIM	Clause 4 of ETSI TS 102 221 V11.1.0.
7.1.3	Interface protocols USIM	Clause 7A of 3GPP TS 31.101 (Rel.12 and above)
7.1.4	Minimum application clock frequency USIM	Clause 6 of 3GPP TS 31.101 (Rel.12 and above)

7.1.5	Physical and Logical Characteristics USIM	Clause 4 of ETSI TS 102 221 Rel 12
7.1.6	Security mechanisms for the (U)SIM application toolkit Stage 2	Clause 5 6 7 8 9 of 3GPP TS 23.048 (Release v5.9.0 and above)
7.1.7	Security mechanisms for the USIM Application Toolkit Stage 1	Clause 5 6 7 of ETSI TS 101 180 (GSM 02.48 version 8.0.0) (Release 1999)
7.1.8	SIM shall support special SSD (Supplementary Secure Domain) for SIM based apps.	Clause 7.2 of Global Platform Specifications of SIM Alliance Forum Version 2.1.1 or higher
7.1.9	Subscriber Identity Module Application Programming Interface (SIM API) for Java CardV TM Stage 2 USIM	Clause 6 7 of 3GPP TS 43.019 (Release V5.6.0 and above)
7.1.10	Subscriber Identity Module Application Programming Interface (SIM API) Stage 1 USIM	Clause 5 6 7 8 9 10 of 3GPP TS 02.19 (Release 1999)
7.1.11	Support for PIN and PUK USIM	ISO7816 4 Clause 9 of ETSI TS 102 221 Rel 13
7.1.12	Transmission Speed USIM	Clause 5.1 of 3GPP TS 31.101 (Rel.12 and above)
7.1.13	Voltage classes (Class A Class B Class C at least two consecutive classes Eg AB or BC) USIM	Clause 5A of 3GPP TS 31.101 (Rel.12 and above)

7.2 Interface 1 : SIM-ME-USIM

S.No.	Parameter Name	Standard Name
7.2.1	Specification of the Subscriber Identity Module Mobile Equipment (SIM ME) interface USIM	Clause 5 6 of 3GPP TS 51.011 Release 4 or higher