# IMT-2000 MC-CDMA System

**1 Standard : ARIB STD-T64 IMT-2000 MC-CDMA System**

**2 Technical Report : ARIB TR-T13 IMT-2000 MC-CDMA System**

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# IMT-2000 MC-CDMA System

## ARIB STANDARD

ARIB STD-T64 Ver. 6.60

**Mar. 18 , 2014**

**Association of Radio Industries and Businesses**

**General Notes for the ARIB STD-T64**



The policy about IPR (Industrial Property Rights) described in the section 3 applies to the use of Essential IPR for the ARIB Standard in Japan. If the ARIB Standard is adopted outside Japan, Essential IPR will be treated in accordance with policies stated by each IPR owner. The IPR owners are, however, expected to apply the rules of the preface of the "Guidelines for Treatment of Industrial Property Rights in connection with the ARIB Standard"(September 5, 1995, approved by the 1st Standard Assembly Meeting). In the preface of the Guidelines, it is stated that it is "desirable that the Essential IPR which relates to any or all parts of the contents of the ARIB Standards should be used free of charge by anyone and that it would not block the uses of such Essential IPR in any other country where such an ARIB Standard is adopted".

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# 1 Preface

## 1.1 Introduction

Association of Radio Industries and Businesses (hereinafter ARIB) investigates and summarizes the basic technical requirements for various radio systems in the form of "technical standard (ARIB STD)". These standards are being developed with the participation of, and through discussions amongst various radio equipment manufacturers, operators and users.

ARIB standards include "government technical standards" (mandatory standards) that are set for the purpose of encouraging effective use of frequency resources and preventing interference, and "private technical standards" (voluntary standards) that are defined in order to guarantee compatibility between radio facilities, to secure adequate transmission quality as well as to offer greater convenience to radio equipment manufacturers and users, etc.

This standard is developed for the "IMT-2000 MC-CDMA System". In order to develop a globally common standard, ARIB adopted the specifications drafted by the Third Generation Partnership Project 2 (3GPP2: a group formed by regional standard development organizations such as ARIB, CCSA[1], TIA[2], TTA[3], TTC[4] to jointly study the technical specifications), which was attended by the world's radio equipment manufacturers, telecommunications operators, and users, etc.

ARIB sincerely hopes that this standard be utilized actively by radio equipment manufacturers, telecommunications operators, and users, etc.

## 1.2 Integration of Two Standards

In 1997, ARIB STD-T53 "CDMA Cellular System" which applied only to the 800 MHz frequency band was established and in 2000, ARIB STD-T64 "IMT-2000 MC-CDMA System" which used to apply only to the 2 GHz frequency band was established. As the technical specifications formulated in the 3GPP2 apply to both 800 MHz and 2 GHz frequency bands, the contents of the two ARIB standards mentioned above have become almost identical each other except for the frequency bands used, and therefore, it has been realized that there is no more significance to have two similar standards in parallel. Consequently, in May 2006, when revising the existing ARIB STD-T64 Ver.3.50 in connection with the reorganization of 800 MHz band in Japan, the contents of ARIB STD-T53 Ver.6.50 were incorporated into ARIB STD-T64 and a new version of the consolidated standard was established as ARIB STD-T64 Ver.4.00, which now applies to both 800 MHz and 2 GHz bands. With this integration of the two standards, ARIB STD-T53 is to be frozen without any further update and only ARIB STD-T64 shall continue to be maintained with appropriate revisions to be made from time to time as necessary.

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1 China Communications Standards Association (China)

2 Telecommunication Industry Association (North America)

3 Telecommunications Technology Association (Korea)

4 Telecommunication Technology Committee (Japan)

# 2 General Description

## 2.1 Overview

The IMT-2000 radio interface specifications for CDMA multi-carrier (MC) technology are developed by a partnership of SDOs[5]. This radio interface is called cdma2000, which consists of the 1X and 3X components. The 1X component includes enhancements for high rate packet data access. The cdma2000 family of standards includes core air interface, minimum performance, and service standards. The cdma2000 air interface standards specify a spread spectrum radio interface that uses Code Division Multiple Access (CDMA) technology to meet the requirements for Third Generation (3G) wireless communication systems.

## 2.2 Scope of Application

The CDMA mobile communication system consists of the land mobile stations and base station facilities as shown in Figure 2-1.

This standard specifies the radio interface for the CDMA mobile communication system as indicated in Figure 2-1.

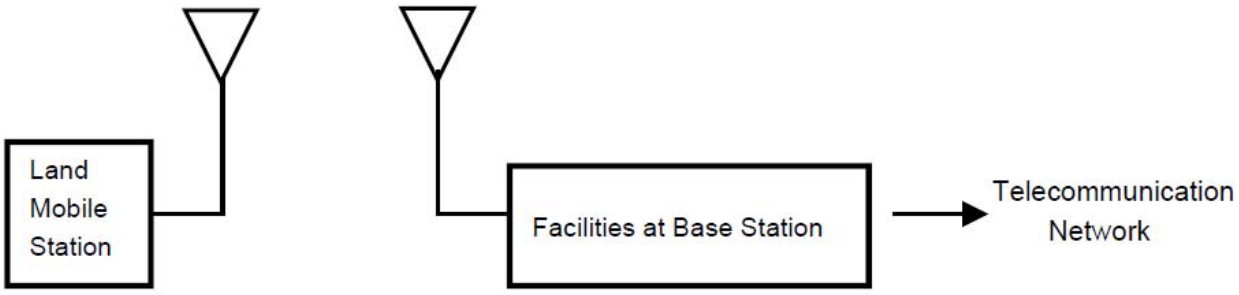


**Figure 2-1**

## 2.3 Standardization Principle

To ensure interconnection, this standard specifies the minimum level of specifications required for basic connection and services as essential requirements, while for other items where selection is permitted, e.g., protocols, a minimum level of specifications is defined as options where necessary. Furthermore, care has been taken so as not to place restrictions on non-standardized specifications, in order to provide room for future expansion and freedom of choice, etc.

5 Currently, these specifications are developed within The Third Generation Partnership Project 2 (3GPP2), where the participating SDOs are ARIB, CCSA, TIA, TTA and TTC.

## 3 Industrial Property Rights (IPRs)

Although this ARIB Standard contains no specific reference to any Essential Industrial Property Rights relating thereto, the holders of such Essential Industrial Property Rights state to the effect that the rights listed in Attachment 1 and 2(See Section 3.1 and 3.2 below), which are the Industrial Property Rights relating to this standard, are held by the parties also listed therein, and that to the users of this standard, in the case of Attachment 1, such holders shall not assert any rights and shall unconditionally grant a license to practice such Industrial Property Rights contained therein, and in the case of Attachment 2, the holders shall grant, under the reasonable terms and conditions, a non-exclusive and non-discriminatory license to practice the Industrial Property Rights contained therein. However, this does not apply to anyone who uses this ARIB Standard and also owns and lays claim to any other Essential Industrial Property Rights of which is covered in whole or part in the contents of provisions of this ARIB Standard.

### 3.1 Essential IPRs for ARIB STD-T64 "IMT-2000 MC-CDMA System"

**Click here for the list of Essential IPRs for ARIB STD-T64.**

### 3.2 Essential IPRs for ARIB STD-T53 "CDMA Cellular System"

After the integration of ARIB STD-T53 and ARIB STD-T64, declarations on essential IPRs for ARIB STD-T53, which were made by the holders of such essential IPRs at the times of revisions of ARIB STD-T53, are still valid. Therefore, the list of declarations on essential IPRs for ARIB STD-T53 is attached hereto.

**Click here for the list of Essential IPRs for ARIB STD-T53.**

## 4 Specifications

The 3GPP2 specifications which are not listed in this section have not been transposed from 3GPP2 due to a lack of usage scenarios of such specifications for ARIB members. Those specifications may be transposed in the future upon requests from the ARIB members.

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|---|---|
| STD-T64-C.S0001-0 v3.0 | Introduction to cdma2000 Spread Spectrum Systems, Release 0 |
| STD-T64-C.S0001-A v5.0 | Introduction to cdma2000 Standards for Spread Spectrum System, Release A |
| STD-T64-C.S0001-B v1.0 | Introduction to cdma2000 Standards for Spread Spectrum Systems, Release B |
| STD-T64-C.S0001-C v2.0 | Introduction to cdma2000 Standards for Spread Spectrum Systems, Revision C |
| STD-T64-C.S0001-D v2.0 | Introduction to cdma2000 Standards for Spread Spectrum Systems, Release D |
| STD-T64-C.S0001-E v3.0 | Introduction to cdma2000 Standards for Spread Spectrum Systems, Revision E |
| STD-T64-C.S0002-0 v3.0 | Physical Layer Standard for cdma2000 Spread Spectrum Systems, Release 0 |
| STD-T64-C.S0002-A v6.0 | Physical Layer Standard for cdma2000 Spread Spectrum Systems, Release A |
| STD-T64-C.S0002-B v1.0 | Physical Layer Standard for cdma2000 Spread Spectrum Systems, Release B |
| STD-T64-C.S0002-C v2.0 | Physical Layer Standard for cdma2000 Spread Spectrum Systems, Revision C |
| STD-T64-C.S0002-D v2.0 | Physical Layer Standard for cdma2000 Spread Spectrum Systems, Revision D |

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| STD-T64-C.S0002-E v3.0 | Physical Layer Standard for cdma2000 Spread Spectrum Systems, Revision E |
| STD-T64-C.S0003-0 v3.0 | Medium Access Control (MAC) Standard for cdma2000 Spread Spectrum Systems, Release 0 - Addendum 2 |
| STD-T64-C.S0003-A v6.0 | Medium Access Control (MAC) Standard for cdma2000 Spread Spectrum Systems, Release A - Addendum 2 |
| STD-T64-C.S0003-B v1.0 | Medium Access Control (MAC) Standard for cdma2000 Spread Spectrum Systems, Release B |
| STD-T64-C.S0003-C v2.0 | Medium Access Control (MAC) Standard for cdma2000 Spread Spectrum Systems, Release C |
| STD-T64-C.S0003-D v2.0 | Medium Access Control (MAC) Standard for cdma2000 Spread Spectrum Systems, Release D |
| STD-T64-C.S0003-E v3.0 | Medium Access Control (MAC) Standard for cdma2000 Spread Spectrum Systems, Revision E |
| STD-T64-C.S0004-0 v3.0 | Signaling Link Access Control (LAC) Specification for cdma2000 Spread Spectrum Systems, Release 0 |
| STD-T64-C.S0004-A v6.0 | Signaling Link Access Control (LAC) Standard for cdma2000 Spread Spectrum Systems – Addendum 2 |
| STD-T64-C.S0004-B v1.0 | Signaling Link Access Control (LAC) Standard for cdma2000 Spread Spectrum Systems, Release B |
| STD-T64-C.S0004-C v2.0 | Signaling Link Access Control (LAC) Standard for cdma2000 Spread Spectrum Systems, Revision C |
| STD-T64-C.S0004-D v2.0 | Signaling Link Access Control (LAC) Standard for cdma2000 Spread Spectrum Systems, Revision D v2.0 |
| STD-T64-C.S0004-E v3.0 | Signaling Link Access Control (LAC) Standard for cdma2000 Spread Spectrum Systems, Revision E |

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|---|---|
| STD-T64-C.S0005-0 v3.0 | Upper Layer (Layer 3) Signaling Standard for cdma2000 Spread Spectrum Systems, Release 0 |
| STD-T64-C.S0005-A v6.0 | Upper Layer (Layer 3) Signaling Standard for cdma2000 Spread Spectrum Systems – Release A Addendum 2 |
| STD-T64-C.S0005-B v1.0 | Upper Layer (Layer 3) Signaling Standard for cdma2000 Spread Spectrum Systems, Release B |
| STD-T64-C.S0005-C v2.0 | Upper Layer (Layer 3) Signaling Standard for cdma2000 Spread Spectrum Systems, Revision C |
| STD-T64-C.S0005-D v2.0 | Upper Layer (Layer 3) Signaling Standard for cdma2000 Spread Spectrum Systems, Release D |
| STD-T64-C.S0005-E v3.0 | Upper Layer (Layer 3) Signaling Standard for cdma2000 Spread Spectrum Systems, Revision E |
| STD-T64-C.S0009-0 v1.0 | Speech Service Option Standard for Wideband Spread Spectrum Digital Cellular Systems |
| STD-T64-C.S0010-A v1.0 | Recommended Minimum Performance Standards for cdma2000 Spread Spectrum Base Stations, Release A |
| STD-T64-C.S0010-B v2.0 | Recommended Minimum Performance Standards for cdma2000 Spread Spectrum Base Stations, Release B |
| STD-T64-C.S0010-C v2.0 | Recommended Minimum Performance Standards for cdma2000 Spread Spectrum Base Stations, Release C |
| STD-T64-C.S0010-E v1.0 | Recommended Minimum Performance Standards for cdma2000 Spread Spectrum Base Stations, Release E |
| STD-T64-C.S0011-A v2.0 | Recommended Minimum Performance Standards for cdma2000 Spread Spectrum Mobile Stations, Release A |

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| STD-T64-C.S0011-B v1.0 | Recommended Minimum Performance Standards for cdma2000 Spread Spectrum Mobile Stations, Release B, Version 1 |
| STD-T64-C.S0011-C v2.0 | Recommended Minimum Performance Standards for cdma2000 Spread Spectrum Mobile Stations, Release C, Version 2.0 |
| STD-T64-C.S0011-E v1.0 | Recommended Minimum Performance Standards for cdma2000 Spread Spectrum Mobile Stations, Release E |
| STD-T64-C.S0012-0 v1.0 | Recommended Minimum Performance Standard for Digital Cellular Wideband Spread Spectrum Speech Service Option 1 |
| STD-T64-C.S0013-A | Loopback Service Options (LSO) for cdma2000 Spread Spectrum Systems, Release A |
| STD-T64-C.S0013-B v1.0 | Loopback Service Options (LSO) for cdma2000 Spread Spectrum Systems, Revision B |
| STD-T64-C.S0014-0 v1.0 | Enhanced Variable Rate Codec(EVRC), Speech Service Option 3 for Wideband Spread Spectrum Digital Systems |
| STD-T64-C.S0014-0-1 | Enhanced Variable Rate Codec, Speech Service Option 3 for Wideband Spread Spectrum Digital Systems-Addendum 1 |
| STD-T64-C.S0014-A v1.0 | Enhanced Variable Rate Codec, Speech Service Option 3 for Wideband Spread Spectrum Digital Systems |
| STD-T64-C.S0014-B v1.0 | Enhanced Variable Rate Codec, Speech Service Options 3 and 68 for Wideband Spread Spectrum Digital Systems |
| STD-T64-C.S0014-C v1.0 | Enhanced Variable Rate Codec, Speech Service Options 3, 68, and 70 for Wideband Spread Spectrum Digital Systems |
| STD-T64-C.S0014-D v3.0 | Enhanced Variable Rate Codec, Speech Service Options 3, 68, 70 and 73 for Wideband Spread Spectrum Digital Systems |

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| STD-T64-C.S0014-E v1.0 | Enhanced Variable Rate Codec, Speech Service Options 3, 68, 70, 73 and 77 for Wideband Spread Spectrum Digital Systems |
| STD-T64-C.S0015-A v2.0 | Short Message Services (SMA) for Wideband Spread Spectrum Cellular Systems Release A |
| STD-T64-C.S0015-B v2.0 | Short Message Service (SMS) for Wideband Spread Spectrum Systems, Release B |
| STD-T64-C.S0015-C v1.0 | Short Message Service (SMS) for Wideband Spread Spectrum Systems, Release C |
| STD-T64-C.S0016-A v2.0 | Over-the-Air Service Provisioning of Mobile Stations in Spread Spectrum Systems |
| STD-T64-C.S0016-B v1.0 | Over-the-Air Service Provisioning of Mobile Stations in Spread Spectrum Standards |
| STD-T64-C.S0016-C v2.0 | Over-the-Air Service Provisioning of Mobile Stations in Spread Spectrum Standards, Release C |
| STD-T64-C.S0016-D v2.0 | Over-the-Air Service Provisioning of Mobile Stations in Spread Spectrum Standards, Release D |
| STD-T64-C.S0017-0 | Data Service Options for Wideband Spread Spectrum Systems |
| STD-T64-C.S0017-0-1 | Data Service Options for Spread Spectrum Systems - Radio Link Protocol Type 3 - Addendum 1 |
| STD-T64-C.S0017-0-2 v2.0 | Data Service Options for Spread Spectrum Systems - Addendum 2 |
| STD-T64-C.S0017-0 v5.0 | Data Service Options for Spread Spectrum Systems |
| STD-T64-C.S0017-001-A v1.0 | Data Service Options for Spread Spectrum Systems: Introduction and Service Guide |

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|---|---|
| STD-T64-C.S0017-003-A v1.0 | Data Service Options for Spread Spectrum Systems: AT Command Processing and the Rm Interface |
| STD-T64-C.S0017-004-A v1.0 | Data Service Options for Spread Spectrum Systems: Async Data and Fax Services |
| STD-T64-C.S0017-005-A v1.0 | Data Service Options for Spread Spectrum Systems: Packet Data Services |
| STD-T64-C.S0017-007-A v1.0 | Data Service Options for Spread Spectrum Systems: Analog Fax Service |
| STD-T64-C.S0017-009-A v1.0 | Data Service Options for Spread Spectrum Systems: High Speed Packet Data Services |
| STD-T64-C.S0017-010-0 v3.0 | Data Service Options for Spread Spectrum Systems: Radio Link Protocol Type 3 |
| STD-T64-C.S0017-010-A v2.0 | Data Service Options for Spread Spectrum Systems: Radio Link Protocol Type 3 |
| STD-T64-C.S0017-011-A v1.0 | Data Service Options for Spread Spectrum Systems: Service Option 34 |
| STD-T64-C.S0017-012-A v2.0 | Data Service Options for Spread Spectrum Systems: Service Options 33 and 66 |
| STD-T64-C.S0018-0 v1.0 | Minimum Performance Standard for the Enhanced Variable Rate Codec, Speech Service Option 3 for Spread Spectrum Digital Systems |
| STD-T64-C.S0018-B v1.0 | Minimum Performance Standard for the Enhanced Variable Rate Codec, Speech Service Option 3 and 68 for Wideband Spread Spectrum Digital Systems |
| STD-T64-C.S0018-C v1.0 | Minimum Performance Specification for the Enhanced Variable Rate Codec, Speech Service Options 3, 68, and 70 for Wideband Spread Spectrum Digital Systems |

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| STD-T64-C.S0018-D v1.0 | Minimum Performance Specification for the Enhanced Variable Rate Codec, Speech Service Options 3, 68, 70, and 73 for Wideband Spread Spectrum Digital Systems |
| STD-T64-C.S0018-E v2.0 | Minimum Performance Specification for the Enhanced Variable Rate Codec, Speech Service Options 3, 68, 70, and 77 for Wideband Spread Spectrum Digital Systems |
| STD-T64-C.S0020-0 | High Rate Speech Service Option 17 for Wideband Spread Spectrum Communication Systems |
| STD-T64-C.S0020-A v1.0 | High Rate Speech Service Option 17 for Wideband Spread Spectrum Communication Systems |
| STD-T64-C.S0021-0 v1.0 | Recommended Minimum Performance Standard for the High Rate Speech Option 17 for Wideband Spread Spectrum Communication Systems |
| STD-T64-C.S0022-0 v3.0 | Position Determination Service Standard for Dual-Mode Spread Spectrum Systems |
| STD-T64-C.S0022-A v1.0 | Position Determination Service for cdma2000 Spread Spectrum Systems |
| STD-T64-C.S0022-B v2.0 | Position Determination Service for cdma2000 Spread Spectrum Systems |
| STD-T64-C.S0023-0 v4.0 | Removable User Identity Module (R-UIM) for Spread Spectrum Systems |
| STD-T64-C.S0023-A v3.0 | Removable User Identity Module for Spread Spectrum Systems |
| STD-T64-C.S0023-B v1.0 | Removable User Identity Module for Spread Spectrum Systems |
| STD-T64-C.S0023-C v2.0 | Removable User Identity Module for Spread Spectrum Systems |

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| STD-T64-C.S0023-D v2.0 | Removable User Identity Module for Spread Spectrum Systems |
| STD-T64-C.S0024-0 v4.0 | cdma2000 High Rate Packet Data Air Interface Specification |
| STD-T64-C.S0024-A v3.0 | cdma2000 High Rate Packet Data Air Interface Specification |
| STD-T64-C.S0024-B v3.0 | cdma2000 High Rate Packet Data Air Interface Specification |
| STD-T64-C.S0025-0 v2.0 | Markov Service Option (MSO) for cdma2000 Spread Spectrum Systems |
| STD-T64-C.S0025-A v1.0 | Markov Service Option (MSO) for cdma2000 Spread Spectrum Systems, Revision A |
| STD-T64-C.S0026-0 v2.0 | Test Data Service Option (TDSO) for cdma2000 Spread Spectrum Systems - Addendum 1 |
| STD-T64-C.S0026-A v1.0 | Test Data Service Option (TDSO) for cdma2000 Spread Spectrum System, Revision A |
| STD-T64-C.S0028-Bv1.0 | TTY/FDD Minimum Performance Specification |
| STD-T64-C.S0029-0 v3.0 | Test Application Specification (TAS) for High Rate Packet Data Air Interface |
| STD-T64-C.S0029-A v1.0 | Test Application Specification (TAS) for High Rate Packet Data Air Interface |
| STD-T64-C.S0029-B v1.0 | Test Application Specification (TAS) for High Rate Packet Data Air Interface |
| STD-T64-C.S0030-0 v1.0 and v2.0 Supporting Code | Supporting Code for Selectable Mode Vocoder Service Option (Floating Code, Fixed Code) |

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| STD-T64-C.S0030-0 v3.0 | Selectable Mode Vocoder (SMV) Service Option for Wideband Spread Spectrum Communication Systems |
| STD-T64-C.S0032-0 v2.0 | Recommended Minimum Performance Standards for cdma2000 High Rate Packet Data Access Network |
| STD-T64-C.S0032-A v2.0 | Recommended Minimum Performance Standards for cdma2000 High Rate Packet Data Access Network |
| STD-T64-C.S0032-B v1.0 | Recommended Minimum Performance Standards for cdma2000 High Rate Packet Data Access Network |
| STD-T64-C.S0032-D v1.0 | Recommended Minimum Performance Standards for cdma2000 High Rate Packet Data Access Network |
| STD-T64-C.S0033-0 v2.0 | Recommended Minimum Performance Standards for cdma2000 High Rate Packet Data Access Terminal |
| STD-T64-C.S0033-A v2.0 | Recommended Minimum Performance Standards for cdma2000 High Rate Packet Data Access Terminal |
| STD-T64-C.S0033-B v1.0 | Recommended Minimum Performance Standards for cdma2000 High Rate Packet Data Access Terminal |
| STD-T64-C.S0033-D v1.0 | Recommended Minimum Performance Standards for cdma2000 High Rate Packet Data Access Terminal |
| STD-T64-C.S0034-0 v1.0 | Minimum Performance Specification for the Selectable Mode Vocoder (SMV), Speech Service Option 56 for Wideband Spread Spectrum Digital Systems |
| STD-T64-C.S0035-0 v1.0 | CDMA Card Application Toolkit (CCAT) |
| STD-T64-C.S0035-A v3.0 | CDMA Card Application Toolkit (CCAT) |
| STD-T64-C.S0036-0 v2.0 | Recommended Minimum Performance Specification for Mobile Stations with Position Service |

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| STD-T64-C.S0036-A v1.0 | Recommended Minimum Performance Standard for Mobile Stations with Position Service |
| STD-T64-C.S0037-0 v1.0 | Signaling Conformance Specification for cdma2000 Wireless IP Networks |
| STD-T64-C.S0038-0 v1.0 | Signaling Conformance Specification for High Rate Packet Data Air Interface |
| STD-T64-C.S0038-A v2.0 | Signaling Conformance Specification for High Rate Packet Data Air Interface |
| STD-T64-C.S0038-B v1.0 | Signaling Conformance Specification for High Rate Packet Data Air Interface |
| STD-T64-C.S0039-0 v2.0 | Enhanced Subscriber Privacy for cdma2000 High Rate Packet Data |
| STD-T64-C.S0040-0 v1.0 | IP Based Over-the-Air Handset Configuration Management (IOTA-HCM) |
| STD-T64-C.S0042-0 v1.0 | Circuit-Switched Video Conferencing Services |
| STD-T64-C.S0043-0 v1.0 | Signaling Conformance Test Specification forcdma2000 Spread Spectrum Systems |
| STD-T64-C.S0043-A v1.0 | Signaling Conformance Test Specification forcdma2000 Spread Spectrum Systems, Revision A |
| STD-T64-C.S0044-0 v1.0 | Interoperability Specification for cdma2000 Air Interface |
| STD-T64-C.S0044-A v1.0 | Interoperability Specification for cdma2000 Air Interface Revision A |
| STD-T64-C.S0044-B v1.0 | Interoperability Specification for cdma2000 Air Interface Revision B |
| STD-T64-C.S0044-C v1.0 | Interoperability Specification for cdma2000 Air Interface Revision C |

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| STD-T64-C.S0045-0 v2.0 | Multimedia Messaging Service (MMS) Media Format and Codecs for cdma2000 Spread Spectrum Systems |
| STD-T64-C.S0045-A v1.0 | Multimedia Messaging Service (MMS) Media Format and Codecs for cdma2000 Spread Spectrum Systems |
| STD-T64-C.S0046-0 v1.0 | 3G Multimedia Streaming Services |
| STD-T64-C.S0047-0 v1.0 | Link-Layer Assisted Service Options for Voice-over-IP: Header Removal (SO60) and Robust Header Compression (SO61) |
| STD-T64-C.S0048-0 v1.0 | Mobile Equipment (ME) Conformance Testing for cdma2000 Spread Spectrum Standards |
| STD-T64-C.S0048-A v2.0 | Mobile Equipment (ME) Conformance Testing for cdma2000 Spread Spectrum Standards |
| STD-T64-C.S0049-0 v2.0 | Removable User Identity Module Conformance Testing for Spread Spectrum Systems |
| STD-T64-C.S0049-A v1.0 | Removable User Identity Module Conformance Testing for Spread Spectrum Systems |
| STD-T64-C.S0050-0 v1.0 | 3GPP2 File Formats for Multimedia Services |
| STD-T64-C.S0050-A v1.0 | 3GPP2 File Formats for Multimedia Services |
| STD-T64-C.S0050-B v1.0 | 3GPP2 File Formats for Multimedia Services |
| STD-T64-C.S0052-0 v1.0 | Source-Controlled Variable-Rate Multimode Wideband Speech Codec (VMR-WB) Service Option 62 for Spread Spectrum Systems |
| STD-T64-C.S0052-A v1.0 | Source-Controlled Variable-Rate Multimode Wideband Speech Codec (VMR-WB), Service Options 62 and 63 for Spread Spectrum Systems |

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| STD-T64-C.S0053-0 v1.0 | Minimum Performance Specification for the Source-Controlled Variable-Rate Multimode Wideband Speech Codec (VMR-WB), Service Option 62 for Spread Spectrum Systems |
| STD-T64-C.S0053-A v1.0 | Minimum Performance Specification for the Source-Controlled Variable-Rate Multimode Wideband Speech Codec (VMR-WB), Service Options 62 and 63 for Spread Spectrum Systems |
| STD-T64-C.S0054-0 v2.0 | cdma2000 High Rate Broadcast-Multicast Packet Data Air Interface Specification |
| STD-T64-C.S0055-0 v1.0 | Packet Switched Video Telephony Services (PSVT/MCS) |
| STD-T64-C.S0055-A v1.0 | Packet Switched Video Telephony Services (PSVT/MCS) |
| STD-T64-C.S0056-0 v1.0 | Electro-Acoustic Recommended Minimum Performance Specification for cdma2000 Mobile Stations |
| STD-T64-C.S0056-A v1.0 | Electro-Acoustic Recommended Minimum Performance Specification for cdma2000 Mobile Stations |
| STD-T64-C.S0057-0 v1.0 | Band Class Specification for cdma2000 Spread Spectrum Systems, Revision 0 |
| STD-T64-C.S0057-A v1.0 | Band Class Specification for cdma2000 Spread Spectrum Systems, Revision A |
| STD-T64-C.S0057-B v1.0 | Band Class Specification for cdma2000 Spread Spectrum Systems, Revision B |
| STD-T64-C.S0057-C v1.0 | Band Class Specification for cdma2000 Spread Spectrum Systems, Revision C |
| STD-T64-C.S0057-D v1.0 | Band Class Specification for cdma2000 Spread Spectrum Systems, Revision D |

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| STD-T64-C.S0057-E v1.0 | Band Class Specification for cdma2000 Spread Spectrum Systems, Revision E |
| STD-T64-C.S0058-0 v1.0 | Over The Air Interoperability Specification for cdma2000 Air Interface |
| STD-T64-C.S0058-A v1.0 | Over the Air Interoperability Specification for cdma2000 Air Interface |
| STD-T64-C.S0058-B v1.0 | Over the Air Interoperability Specification for cdma2000 Air Interface |
| STD-T64-C.S0059-0 v1.0 | Signaling Conformance Test Specification for cdma2000 Position Determination Service |
| STD-T64-C.S0060-0 v1.0 | Signaling Conformance Test Specification for Over-the-Air Service Provisioning |
| STD-T64-C.S0061-0 v1.0 | Signaling Conformance Test Specification for Short Message Service |
| STD-T64-C.S0062-0 v1.0 | Signaling Conformance Test Specification for cdma2000 Data Services |
| STD-T64-C.S0063-0 v2.0 | cdma2000 High Rate Packet Data Supplemental Services |
| STD-T64-C.S0063-A v2.0 | cdma2000 High Rate Packet Data Supplemental Services |
| STD-T64-C.S0064-0 v2.0 | IP Based Over-the-Air Device Management (IOTA-DM) for cdma2000 Systems |
| STD-T64-C.S0065-0 v2.0 | cdma2000 Application on UICC for Spread Spectrum Systems |
| STD-T64-C.S0065-A v1.0 | cdma2000 Application on UICC for Spread Spectrum Systems |
| STD-T64-C.S0065-B v2.0 | cdma2000 Application on UICC for Spread Spectrum Systems |

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| STD-T64-C.S0066-0 v2.0 | Over-the-Air Service Provisioning for MEID-Equipped Mobile Stations in Spread Spectrum Systems |
| STD-T64-C.S0067-0 v1.0 | Generic Key Exchange Protocol for cdma2000 High Rate Packet Data Air Interface |
| STD-T64-C.S0067-A v1.0 | Key Exchange Protocol for cdma2000 High Rate Packet Data Air Interface |
| STD-T64-C.S0068-0 v1.0 | ME Personalization for cdma2000 Spread Spectrum Systems |
| STD-T64-C.S0069-0 v1.0 | ISIM Application on UICC for cdma2000 Spread Spectrum Systems |
| STD-T64-C.S0070-0 v1.0 | BCMCS Codecs and Transport Protocols |
| STD-T64-C.S0072-0 v1.0 | Mobile Station Equipment Identifier (MEID) Support for cdma2000 Spread Spectrum Systems, Revision 0 |
| STD-T64-C.S0073-0 v1.0 | Signaling Test Specification for Mobile Station Equipment Identifier (MEID) Support for cdma2000 Spread Spectrum Systems |
| STD-T64-C.S0073-A v1.0 | Signaling Test Specification for Mobile Station Equipment Identifier (MEID) Support for cdma2000 Spread Spectrum Systems |
| STD-T64-C.S0073-B v1.0 | Signaling Test Specification for Mobile Station Equipment Identifier (MEID) Support for cdma2000 Spread Spectrum Systems |
| STD-T64-C.S0074-0 v1.0 | UICC-Terminal interface - Physical and Logical characteristics for cdma2000 Spread Spectrum Systems |
| STD-T64-C.S0074-A v1.0 | UICC-Terminal interface Physical and Logical characteristics for cdma2000 Spread Spectrum Systems |
| STD-T64-C.S0075-0 v1.0 | Interworking Specification for cdma2000 1x and High Rate Packet Data Systems |

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| STD-T64-C.S0076-0 v1.0 | Discontinuous Transmission (DTX) of Speech in cdma2000 Systems |
| STD-T64-C.S0077-0 v1.0 | Broadcast Multicast Service for CDMA2000 1x Systems |
| STD-T64-C.S0078-0 v1.0 | Secured Packet Structure for CDMA Card Application Toolkit (CCAT) Applications |
| STD-T64-C.S0079-0 v1.0 | Remote APDU Structure for CDMA Card Application Toolkit (CCAT) Applications |
| STD-T64-C.S0081-0 v1.0 | Signaling Conformance Specification for cdma2000 High Rate Packet Data Supplemental Services |
| STD-T64-C.S0082-0 v1.0 | Circuit Services Notification Application Specification for cdma2000 High Rate Packet Data |
| STD-T64-C.S0083-0 v1.0 | Video Codec for 3GPP2 Packet Switched Multimedia Services – H.263 |
| STD-T64-C.S0085-0 v1.0 | VoIP Codecs and Protocols |
| STD-T64-C.S0085-A v1.0 | VoIP Codecs and Protocols |
| STD-T64-C.S0086-0 v1.0 | WiMAX – HRPD Interworking: Air Interface Specification |
| STD-T64-C.S0087-0 v3.0 | E-UTRAN - cdma2000 HPRD Connectivity and Interworking: Air Interface Specification |
| STD-T64-C.S0087-A v2.0 | E-UTRAN - cdma2000 HPRD Connectivity and Interworking: Air Interface Specification |
| STD-T64-C.S0093-0 v1.0 | Highly Detectable Pilot Specification for the cdma2000 High Rate Packet Data Air Interface |

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| STD-T64-C.S0094-0 v1.0 | Signaling Conformance Test Specification for Interworking of cdma2000 1x and High Rate Packet Data Systems |
| STD-T64-C.S0095-0 v2.0 | Signaling Test Specification for EUTRAN - cdma2000 Connectivity and Interworking |
| STD-T64-C.S0095-A v1.0 | Signaling Test Specification for EUTRAN - cdma2000 Connectivity and Interworking |
| STD-T64-C.S0096-0 v1.0 | Recommended Minimum Performance Standard for Simultaneous cdma2000 and vdma2000-HRPD Access Terminal |
| STD-T64-C.S0096-A v1.0 | Recommended Minimum Performance Standard for Simultaneous cdma2000 and vdma2000-HRPD Access Terminal |
| STD-T64-C.S0097-0 v3.0 | E-UTRAN – cdma2000 1x Connectivity and Interworking Air interface Specification |
| STD-T64-C.S0097-A v1.0 | E-UTRAN – cdma2000 1x Connectivity and Interworking Air Interface Specification |
| STD-T64-C.S0099-0 v2.0 | Guidelines for using cdma2000 1x Revision E Features on Earlier Revisions |
| STD-T64-C.S0101-0 v1.0 | Mobile Equipment(ME) Conformance Testing with CSIM for cdma2000 Spread Spectrum Standards |
| STD-T64-C.S0105-0 v1.0 | Unstructured Supplementary Service Data (USSD) Service Options for Spread Spectrum Systems : Service Options 78 and 79 |
| STD-T64-C.S0105-A v1.0 | Unstructured Supplementary Service Data (USSD) Service Option for Spread Spectrum System: Service Option 78 and 79 |
| STD-T64-C.S0107-0 v1.0 | cdma2000 Application (CSIM) Conformance Testing for Spread Spectrum Systems |

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| STD-T64-S.S0053-0 v2.0 | Common Cryptographic Algorithms |
| STD-T64-S.S0054-0 v1.0 | Interface Specification for Common Cryptographic Algorithms |
| STD-T64-S.S0055-0 v1.0 | Enhanced Cryptographic Algorithms |
| STD-T64-S.S0055-A v4.0 | Enhanced Cryptographic Algorithms |
| STD-T64-S.S0078-0 v1.0 | Common Security Algorithms |
| STD-T64-S.S0078-A v4.0 | Common Security Algorithms |
| STD-T64-S.S0078-B v1.0 | Common Security Algorithms |
| STD-T64-S.S0132-0 v1.0 | Femtocell Security Framework |
| STD-T64-S.S0145-0 v1.0 | Advanced Security Framework for HRPD and eHRPD System |
| STD-T64-C.R0014-A v1.0 | Software Distribution for Enhanced Variable Rate Codec (EVRC), Speech Service Option 3, Specification<br>Software Distribution vA-1.0 for C.S0014-A v1.0 (860KB .zip file) |
| STD-T64-C.R0014-B v1.0 | Software Distribution for Enhanced Variable Rate Codec (EVRC), Speech Service Option 3 and 68, Specification<br>Software Distribution vB-1.0 for C.S0014-B v1.0 (3.16MB .zip file) |
| STD-T64-C.R0014-C v1.0 | Software Distribution for Enhanced Variable Rate Codec (EVRC), Speech Service Options 3, 68, and 70, Specification<br>Software Distribution for C.R0014-C v1.0 (1.35MB .zip file) |

| | |
|---|---|
| STD-T64-C.R0014-D v1.0 | Software Distribution for Enhanced Variable Rate Codec (EVRC), Speech Service Options 3, 68, and 70, Specification<br><br>Software Distribution for C.R0014-D v1.0 (1.9 MB) |
| STD-T64-C.R0014-E v1.0 | Software Distribution for Enhanced Variable Rate Codec (EVRC), Speech Service Options 3, 68, 70, 73 and 77 Specification<br><br>C.R0014-E v1.0 Software (2,137 KB Zip File) |
| STD-T64-C.R0018-B v1.0 | Software Distribution for Enhanced Variable Rate Codec (EVRC), Speech Service Options 3 and 68, Minimum Performance Specification (MPS)<br>Software Distribution for C.R0018-B v1.0 (504MB .zip file) |
| STD-T64-C.R0018-C v1.0 | Software Distribution for Enhanced Variable Rate Codec (EVRC), Speech Service Options 3, 68, and 70, Minimum Performance Specification<br>Software Distribution for C.R0018-C v1.0 (1.8GB .zip file) |
| STD-T64-C.R0018-D v1.0 | Software Distribution for Enhanced Variable Rate Codec (EVRC), Speech Service Options 3, 68, 70, and 73, Minimum Performance Specification (MPS)<br>Software Distribution for C.R0018-D v1.0 (2.8 GB) |
| STD-T64-C.R0018-E v1.0 | Software Distribution for Enhanced Variable Rate Codec (EVRC), Speech Service Options 3, 68, 70, 73, and 77 Minimum Performance Specification (MPS)<br>C.R0018-E v0.0 Software (4.01 GB Zip File) |
| STD-T64-C.R0020-A v1.0 | Software Distribution for High Rate Speech (13k), Service Option 17, Specification<br>Software Distribution vA-1.0 for C.S0020-A v1.0 (384KB .zip file) |
| STD-T64-C.R0022-B v1.0 | Position Determination Service for cdma2000 Spread Spectrum Systems Software Distribution |

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| | Software Distribution v1.0 for C.S0022-B v1.0 |
| STD-T64-C.R0030-0 v3.0 | Software Distribution for Selectable Mode Vocoder (SMV), Service Option 56, Specification<br>Software Distribution v3.9 for C.S0030-0 v3.0 (3.8MB .zip file) |
| STD-T64-C.R0034-0 v1.0 | Software Distribution for Selectable Mode Vocoder (SMV), Service Option 56, Minimum Performance Specification (MPS)<br>Software Distribution v3.9 for C.S0034-0 v1.0 (571MB .zip file) |
| STD-T64-C.R0052-0 v1.0 | Software Distribution for Source-Controlled Variable-Rate Multimode Wideband Speech Codec (VMR-WB) Service Option 62, Specification<br>Software Distribution v1.0 for C.S0052-0 v1.0 (8.7MB .zip file) |
| STD-T64-C.R0052-A v1.0 | Software Distribution for Source-Controlled Variable-Rate Multimode Wideband Speech Codec (VMR-WB) Service Option 62 and 63, Specification<br>Software Distribution v1.0 for C.S0052-A v1.0 (10MB .zip file) |
| STD-T64-C.R0053-0 v1.0 | Software Distribution for Source-Controlled Variable-Rate Multimode Wideband Speech Codec (VMR-WB) Service Option 62, Minimum Performance Specification (MPS)<br>Software Distribution v1.0 for C.S0053-0 v1.0 Part 1 of 3 - Common (272MB .zip file)<br>Software Distribution v1.0 for C.S0053-0 v1.0 Part 2 of 3 - Cygwin (285MB .zip file)<br>Software Distribution v1.0 for C.S0053-0 v1.0 Part 3 of 3 - Linux (285MB .zip file) |
| STD-T64-C.R0053-A v1.0 | Software Distribution for Source-Controlled Variable-Rate Multimode Wideband Speech Codec (VMR-WB) Service Option 62 and 63, Minimum Performance Specification (MPS)<br>Software Distribution v1.0 for C.S0053-A v1.0 Part 1 of 3 - Common (280MB .zip file) |

| | |
|---|---|
| | Software Distribution v1.0 for C.S0053-A v1.0 Part 2 of 3 - Cygwin (297MB .zip file)<br>Software Distribution v1.0 for C.S0053-A v1.0 Part 3 of 3 - Linux (272MB .zip file) |
| STD-T64-C.R0056-0 v1.0 | Software Distribution for Electro-Acoustic Minimum Performance Specification<br>Software Distribution v1.0 for C.S0056-0 v1.0 (2.5MB .zip file) |
| STD-T64-C.R1001-A v2.0 | Administration of Parameter Value Assignments for cdma2000 Spread Spectrum Standards - Release A |
| STD-T64-C.R1001-C v1.0 | Administration of Parameter Value Assignments for cdma2000 Spread Spectrum Standards, Release C |
| STD-T64-C.R1001-D v1.0 | Administration of Parameter Value Assignments for cdma2000 Spread Spectrum Standards, Release D |
| STD-T64-C.R1001-E v1.0 | Administration of Parameter Value Assignments for cdma2000 Spread Spectrum Standards, Release E |
| STD-T64-C.R1001-F v1.0 | Administration of Parameter Value Assignments for cdma2000 Spread Spectrum Standards, Release F |
| STD-T64-C.R1001-G v1.0 | Administration of Parameter Value Assignments for cdma2000 Spread Spectrum Standards, Release G |
| STD-T64-C.R1001-H v1.0 | Administration of Parameter Value Assignments for cdma2000 Spread Spectrum Standards, Release H |
| STD-T64-C.R1001-I v1.0 | Administration of Parameter Value Assignments for cdma2000 Spread Spectrum Standards, Release I |
| STD-T64-C.R1010-0 v1.0 | Software Distribution for H.263 Video Codec for 3Gpp2 Packet Switched Multimedia Services<br>Software Distribution for C.R1010-0 v1.0 (90KB .zip file) |

| | |
|---|---|
| STD-T64-LPR-0 v1.0 | The Low Power Repeaters for cdma2000 Cellular Telephones |

## 5 National Regulatory Requirements

1) This standard shall be applicable only to the Band Class 0, 3 and 6 operations in Japan, while the other Band Class operations are specified in this standard.

2) The 3x operation is not applicable to the Band Class 0 or 3 operation.

3) All mobile stations complied with this standard shall always be able to originate the Domestic Emergency Calls (110/118/119) in the operational base station's coverage. For mobile stations operated in P_REV_IN_USE ≤ 6 that are classified as access overload classes ACCOLC 0 through ACCOLC 9, the mobile stations temporarily consider own access overload class as ACCOLC 11 (emergency mobile stations) and refer to PSIST(11). Prior to the access attempt, the access persistence test with PSIST(11) above is performed whenever the mobile station identifies the called party numbers for emergency use: 110, 118, or 119.

4) Regarding the latest versions of STD-T64-C.S0002-C, STD-T64-C.S0002-D and STD-T64-C.S0002-E in this standard, neither Radio Configuration 10 (RC10) on the forward traffic channel nor Radio Configuration 7 (RC7) on the reverse traffic channel shall be applicable for the time being, since some parameters of these channels are not currently specified in the relevant radio regulation.

5) In the HRPD (High Rate Packet Data) Multicarrier operation under the Japanese Regulation, the number of CDMA channels to be assigned simultaneously on the forward link or the reverse link shall not exceed three, and the Multicarrier frequency bandwidth which is defined as the frequency difference between the upper edge of the highest CDMA channel and the lower edge of the lowest CDMA channel to be arranged within the same Band Class shall not exceed 10MHz.

6) The requirements of Femto and Pico cells MPS in STD-T64-C.S0010-E, STD-T64-C.S0032-D shall not apply since these requirements do not comply with the relevant radio regulation.

## 6 Japanese Specific Matters

### 6.1 Country-Specific Record Type for Japan

This normative section contains signalling formats that give specific use of Extended Record Type – International in Japan. (see Section 3.7.5.17 of C.S0005 series)

### 6.2 Country-Specific Record Type for Japan

The record length shall be an integer number of octets. The first ten bits of the type-specific fields shall be '0101010011'. The subsequent six bits are values for the country-specific record type. Depending on the country-specific record type, additional type-specific fields can be part of the record. Country-specific record types are shown in Table 6-1:

**Table 6-1 Country-specific record types**

| Country-specific Record | Country-specific Record Type (binary) | Message Type | f-csch | f-dsch |
|---|---|---|---|---|
| CLIR | 000001 | AWI | N | Y |
| Release | 000010 | FWI | N | Y |
| Reserved for Obsolete Record (Audio Control) | 000011 | - | - | - |
| All other record type values (without Obsolete Record (Audio Control)) are reserved.<br>"AWI" refers to either the *Alert With Information Message* or the *Extended Alert With Information Message*.<br>"FWI" refers to either the *Flash With Information Message* or the *Extended Flash With Information Message*. | | | | |

### 6.2.1 CLIR (Caller Line Identification Restriction)

This information record conveys to the called party the reason why the caller's line identification cannot be made available. The base station shall use the following fixed-length format for the type-specific fields:

| Type-Specific Field | Length (bits) |
|---|---|
| MCC | 10 |
| RECORD_SUBTYPE | 6 |
| CAUSE | 8 |

MCC - Mobile country code.

The base station shall set this field to '0101010011'.

RECORD_SUBTYPE - Country-specific record type.

The base station shall set this field to '000001'.

CAUSE - Reason code.

The base station shall set this field to the value corresponding to the reason why the caller's line identification cannot be made available. Field values are given in Table 6-2

**Table 6-2 CLIR Reason Codes**

| CAUSE (binary) | Description |
|---|---|
| 00000000 | No cause. |
| 00000001 | Rejected by user. |
| 00000010 | Interaction with other services. |
| 00000011 | Coin line. |
| 00000100 | Service not available. |
| All other CAUSE codes are reserved. | |

### 6.2.2 Release

This record instructs a mobile station to initiate the release of the traffic channel. For example, this record can be part of a message that also contains a Signal record and is used to instruct an originating mobile station to generate busy tone to the user and promptly release the traffic channel, in the case when the called party is busy.

| Type-Specific Field | Length (bits) |
|---|---|
| MCC | 10 |
| RECORD_SUBTYPE | 6 |

MCC - Mobile country code.

The base station shall set this field to '0101010011'.

RECORD_SUBTYPE - Country-specific record type.

The base station shall set this field to '000010'.

## 6.3 Country-Specific Burst Type for Japan

This normative section contains signaling formats that give specific use of Extended Burst Type – International in Japan. (see Section 4.1 of C.R1001-H)

### 6.3.1 Charge Rate

The data burst message conveys to the mobile station the charge rate for the call. The EXTENDED BURST TYPE INTERNATIONAL is used for this message. The base station shall use following fixed-length format for CHARi field:

| CHARi Field | Length (bits) |
|---|---|
| MCC | 10 |
| DB_SUBTYPE | 6 |
| CHG_IND | 2 |
| RESERVED | 1 |
| SUBUNIT | 5 |
| UNIT | 8 |

MCC - Mobile country code.

The base station shall set this field to ‘0101010011’.

DB_SUBTYPE - Data burst subtype.

The base station shall set this field to ‘000001’.

CHG_IND - Charge indication.

The base station shall set this field according to the following table:

| Value(binary) | Charge Indication |
|---|---|
| 00 | No indication (e.g. international call) |
| 01 | Non-charge call (e.g. police ) |
| 10 | Charge rate call |
| 11 | 104 call service charge |

RESERVED - Reserved bit.

The base station shall set this field to ‘0’.

SUBUNIT - Unit call time (1/10 second)

the charge indication is ‘00’ or ‘01’, the base station shall set this field to ‘00000’. If the charge indication is ‘10’, the base station shall set this field to the decimal part (expressed as whole number of tenths of seconds) of the number of seconds of call time that would result in a 10 yen charge. If the charge indication is ‘11’, the base station shall set this field to the 104 call service charge, as provided by the NTT network.

UNIT - Unit call time (second)

If the charge indication is ‘10’, the base station shall set this field to the integer part of the number of seconds of call time that would result in a 10 yen charge. Otherwise the base station shall set this field to ‘00000000’.

## 7 ESN Allocation

The method of ESN allocation shall be consulted with operators.

## 8 The Standard of Subscriber Data Writing of IMT-2000 MC-CDMA System

(Advisory note)

Disclosure of the accompanying standard for Subscriber Data Writing of IMT-2000 MC-CDMA System shall be conducted only to eligible applicants, who have concluded an agreement with ARIB, based on the procedural rules for disclosing the Standard of Subscriber Data Writing of IMT-2000 MC-CDMA System, which was approved by the Standard Assembly of ARIB.

Any applicant wishing to obtain the standard shall consult the secretariat for 3GPP2 Support WG stationed in ARIB.

# 9 Change History

## 9.1 Change History of ARIB STD-T64

**Click here for the change history of ARIB STD -T64**

## 9.2 Change History of ARIB STD-T53

As described in Section 1.2, the contents of ARIB STD-T53 Ver.6.50 were incorporated into ARIB STD-T64 and a new version of the consolidated standard was established as ARIB STD-T64 Ver.4.00. Therefore, the change history of ARIB STD-T53 is also attached hereto.

**Click here for the change history of ARIB STD-T53 ver.6.5**

# IMT-2000 MC-CDMA System

## ARIB Technical Report

ARIB TR-T13 Ver. 6.60

**Mar. 18, 2014**

**Association of Radio Industries and Businesses**

**General Notes for the ARIB TR-T13**

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## 1. Technical Reports

| | |
|---|---|
| TR-T13-SC.R2001-001-0 v1.0 | 3GPP2 System Capability Guide Release A |
| TR-T13-SC.R2002-001-0 v1.0 | 3GPP2 System Capability Guide Release B |
| TR-T13-C.R1000-0 v1.0 | Capabilities Requirements Mapping for cdma2000 Standards |
| TR-T13-C.R1008-0 v1.0 | cdma2000 Multimedia Services Evaluation Methodology |
| TR-T13-C.R1009-0 v1.0 | cdma2000 Multimedia Services Evaluation Methodology: Software Tools |
| | Software Distribution for C.R1009-0 v1.0 (2.07MB .zip file) |
| TR-T13-S.R0023-0 v2.0 | High Speed Data Enhancements for cdma2000 1x-Data Only, Stage 1 Requirements |
| TR-T13-S.R0060-0 v1.0 | Removable User Identity Module (R-UIM)/Mobile Equipment (ME) Interface Testing, Stage 1 Description |
| TR-T13-S.R0080-0 v1.0 | CDMA2000 Wideband Speech Codec, Stage 1 Requirements |

## 2. Change History

**Table 1 ARIB TR-T13 Change History**

| Document history | | |
|---|---|---|
| Version | Date | History |
| Ver. 1.00 | March 2, 2000 | Approved by the 28th ARIB Standard Assembly |
| Ver. 1.10 | July 25, 2000 | Revised by the 32nd ARIB Standard Assembly (see 2.1.1) |
| Ver. 1.20 | January 30, 2001 | Revised by the 35th ARIB Standard Assembly (see 2.1.2) |
| Ver. 1.30 | May 31, 2001 | Revised by the 37th ARIB Standard Assembly (see 2.1.3) |
| Ver. 1.40 | March 28, 2002 | Revised by the 42nd ARIB Standard Assembly (see 2.1.4) |
| Ver. 2.00 | May 30, 2002 | Revised by the 43rd ARIB Standard Assembly (see 2.1.5) |
| Ver. 2.10 | September 26, 2002 | Revised by the 45th ARIB Standard Assembly (see 2.1.6) |
| Ver. 2.20 | February 6, 2003 | Revised by the 47th ARIB Standard Assembly (see 2.1.7) |
| Ver. 2.30 | July 29, 2003 | Revised by the 50th ARIB Standard Assembly (see 2.1.8) |
| Ver. 2.40 | February 5, 2004 | Revised by the 52nd ARIB Standard Assembly (see 2.1.9) |
| Ver. 3.00 | May 25, 2004 | Revised by the 53rd ARIB Standard Assembly (see 2.1.10) |
| Ver. 3.10 | September 28, 2004 | Revised by the 55th ARIB Standard Assembly (see 2.1.11) |
| Ver. 3.20 | December 14, 2004 | Revised by the 56th ARIB Standard Assembly (see 2.1.12) |
| Ver. 3.30 | March 24, 2005 | Revised by the 57th ARIB Standard Assembly (see 2.1.13) |
| Ver. 3.40 | September 29, 2005 | Revised by the 59th ARIB Standard Assembly (see 2.1.14) |
| Ver. 3.50 | November 30, 2005 | Revised by the 60th ARIB Standard Assembly (see 2.1.15) |
| Ver. 4.00 | May 29, 2006 | Revised by the 62nd ARIB Standard Assembly (see 2.1.16) |
| Ver. 4.10 | Sep 28, 2006 | Revised by the 63rd ARIB Standard Assembly (see 2.1.17) |
| Ver. 4.20 | Dec 12, 2006 | Revised by the 64th ARIB Standard Assembly (see 2.1.18) |
| Ver. 4.30 | May 29, 2007 | Revised by the 66th ARIB Standard Assembly (see 2.1.19) |
| Ver. 4.40 | Sep 26, 2007 | Revised by the 67th ARIB Standard Assembly (see 2.1.20) |
| Ver 4.50 | Dec 12, 2007 | Revised by the 68th ARIB Standard Assembly (see 2.1.21) |
| Ver 4.60 | Jun 6, 2008 | Revised by the 70th ARIB Standard Assembly (see 2.1.22) |
| Ver 4.70 | Sep 25, 2008 | Revised by the 71st ARIB Standard Assembly (see 2.1.23) |
| Ver 4.80 | Mar 18, 2009 | Revised by the 73rd ARIB Standard Assembly (see 2.1.24) |
| Ver 4.90 | Jul 29, 2009 | Revised by the 74th ARIB Standard Assembly (see 2.1.25) |
| Ver 5.00 | Dec 16, 2009 | Revised by the 75th ARIB Standard Assembly (see 2.1.26) |
| Ver 5.10 | Apr 26, 2010 | Revised by the 76th ARIB Standard Assembly (see 2.1.27) |
| Ver 5.20 | Jul 25, 2010 | Revised by the 77th ARIB Standard Assembly (see 2.1.28) |

| | | |
|---|---|---|
| Ver 5.30 | Nov 5, 2010 | Revised by the 78th ARIB Standard Assembly (see2.1.29) |
| Ver 5.40 | Mar 28, 2011 | Revised by the 79th ARIB Standard Assembly (see2.1.30) |
| Ver 5.50 | Jul 7, 2011 | Revised by the 80th ARIB Standard Assembly (see2.1.31) |
| Ver 5.60 | Sep 16,2011 | Revised by the 81st ARIB Standard Assembly (see2.1.32) |
| Ver 5.70 | Dec 6, 2011 | Revised by the 82nd ARIB Standard Assembly (see2.1.33) |
| Ver 5.80 | Feb 14, 2012 | Revised by the 83rd ARIB Standard Assembly (see2.1.34) |
| Ver 5.90 | Jul 3, 2012 | Revised by the 84th ARIB Standard Assembly (see2.1.35) |
| Ver 6.00 | Sep 25, 2012 | Revised by the 85th ARIB Standard Assembly (see2.1.36) |
| Ver 6.10 | Dec 18, 2012 | Revised by the 86th ARIB Standard Assembly (see2.1.37) |
| Ver 6.20 | Mar 19, 2013 | Revised by the 87th ARIB Standard Assembly (see2.1.38) |
| Ver 6.30 | Jul 3, 2013 | Revised by the 88th ARIB Standard Assembly (see2.1.39) |
| Ver 6.40 | Sep 26, 2013 | Revised by the 89th ARIB Standard Assembly (see2.1.40) |
| Ver. 6.50 | Dec 10, 2013 | Revised by the 90th ARIB Standard Assembly (see2.1.41) |
| Ver. 6.60 | Mar 18, 2014 | Revised by the 91th ARIB Standard Assembly (see2.1.42) |

## 2.1 Detail Description of History

### 2.1.1 Ver. 1.10

TR-T13-S.R.0001 (IMT-2000 MC-CDMA System Standards List) has been revised at TR-T13 Ver. 1.10.

### 2.1.2 Ver. 1.20

TR-T13-S.R.0001 (IMT-2000 MC-CDMA System Standards List) has been revised at TR-T13 Ver. 1.20.

### 2.1.3 Ver. 1.30

TR-T13-S.R.0001 (IMT-2000 MC-CDMA System Standards List) has been revised at TR-T13 Ver. 1.30.

### 2.1.4 Ver. 1.40

TR-T13-S.R.0001 (IMT-2000 MC-CDMA System Standards List) has been revised at TR-T13 Ver. 1.40.

### 2.1.5 Ver. 2.00

TR-T13-S.R.0001 (IMT-2000 MC-CDMA System Standards List) has been revised at TR-T13 Ver. 2.00.

・ Added Technical Reports

| Changed Standard Number | Version at ARIB TR-T13 Ver.2.00 | Version at ARIB TR-T13 Ver.1.40 | Title | Change summary |
|---|---|---|---|---|
| ARIB TR-T13-S.R0003-A | Version 1 | - | System Capability Guide Release B, Version 1.0.0 | S.R0003-A was newly published as System Capability Guide Release-B. |
| ARIB R-T13-S.R0023-0 v2.00 | Version 2 | - | High Speed Data Enhancement for cdma2000 1x-Data Only (Stage 1) | S.R0023-0 v2.0 was newly published as 1xEV-DO Stage1 Description. |

### 2.1.6 Ver. 2.10

TR-T13-S.R.0001 (IMT-2000 MC-CDMA System Standards List) has been revised at TR-T13 Ver. 2.10.

・ Added Technical Reports

| Changed Standard Number | Version at ARIB TR-T13 Ver.2.10 | Version at ARIB TR-T13 Ver.2.00 | Title | Change summary |
|---|---|---|---|---|
| ARIB TR-T13-S.R0060-0 v1.00 | Version 1 | - | Removable User Identity Module(R-UIM)/Mobile Equipment(ME) Interface Testing Stage1 Description | S.R0060-0 was newly published as Removal User Identity Module (R-UIM) / Mobile Equipment(ME) Interface Testing Stage1 Description. |

### 2.1.7 Ver. 2.20

TR-T13-S.R.0001 (IMT-2000 MC-CDMA System Standards List) has been revised at TR-T13 Ver. 2.20.

### 2.1.8 Ver. 2.30

TR-T13-S.R.0001 (IMT-2000 MC-CDMA System Standards List) has been revised at TR-T13 Ver. 2.30.

・ Added Technical Reports

| Changed Standard Number | Version at ARIB TR-T13 Ver.2.30 | Version at ARIB TR-T13 Ver.2.20 | Title | Change summary |
|---|---|---|---|---|
| ARIB TR-T13-S.R0080-0 v1.00 | Version 1 | - | CDMA2000 Wideband Speech Codec, Stage1 Description | S.R0080-0 was newly published as Wideband Speech Codec Stage 1 Description. |

### 2.1.9 Ver. 2.40

TR-T13-S.R0001 (IMT-2000 MC-CDMA System Standards List) has been revised at TR-T13 Ver. 2.40.

### 2.1.10 Ver. 3.00

Contents of TR-T13 Ver. 3.00 have not been changed from TR-T13 Ver. 2.40, however, only version number has been revised in order to synchronize with that of STD-T64 Ver 3.00.

### 2.1.11 Ver. 3.10

TR-T13-S.R0001 (IMT-2000 MC-CDMA System Standards List) has been revised at TR-T13 Ver. 3.10.

### 2.1.12 Ver. 3.20

TR-T13-S.R0001 (IMT-2000 MC-CDMA System Standards List) has been revised at TR-T13 Ver. 3.20.

### 2.1.13 Ver. 3.30

TR-T13-S.R0001 (IMT-2000 MC-CDMA System Standards List) has been revised at TR-T13 Ver. 3.30.

### 2.1.14 Ver. 3.40

TR-T13-S.R0001 (IMT-2000 MC-CDMA System Standards List) has been revised at TR-T13 Ver. 3.40.

### 2.1.15 Ver. 3.50

TR-T13-S.R0001 (IMT-2000 MC-CDMA System Standards List) has been revised at TR-T13 Ver. 3.50.

### 2.1.16 Ver. 4.00

Change history list of Technical Report Ver. 4.00 May 29, 2006

1. Added and Revised Technical Reports

<cdma2000 Technical Report> <cdma2000 Technical Report>

| Document Set of Ver. 3.50 | Document Set of Ver. 4.00 |
|---|---|
| TR-T13-S.R0001 v3.50 | Removed |
| TR-T13-S.R0003-A | TR-T13-S.R0003-A |
| TR-T13-S.R0003-B | TR-T13-S.R0003-B |
| TR-T13-C.R1000-0 | TR-T13-C.R1000-0 |
| TR-T13-S.R0023 v2.0 | TR-T13-S.R0023 v2.0 |
| TR-T13-S.R0060-0 v1.0 | TR-T13-S.R0060-0 v1.0 |
| TR-T13-S.R0080-0 v1.0 | TR-T13-S.R0080-0 v1.0 |

### 2.1.17 Ver 4.10

Change history list of Technical Report Ver. 4.10 Sep 28, 2006

No report is added in this version. The version number was updated due to T64 was revised.

### 2.1.18 Ver. 4.20

Change history list of Technical Report Ver. 4.20 Dec 12, 2006

1. Added and Revised Technical Reports

<cdma2000 Technical Report> <cdma2000 Technical Report>

| Document Set of Ver. 4.10 | Document Set of Ver. 4.20 |
|---|---|
| NA | TR-T13-SC.R2001-001-0 v1.0 |
| NA | TR-T13-SC.R2002-001-0 v1.0 |
| TR-T13-S.R0003-A | Removed |
| TR-T13-S.R0003-B | Removed |
| TR-T13-C.R1000-0 | TR-T13-C.R1000-0 |
| TR-T13-S.R0023 v2.0 | TR-T13-S.R0023 v2.0 |
| TR-T13-S.R0060-0 v1.0 | TR-T13-S.R0060-0 v1.0 |
| TR-T13-S.R0080-0 v1.0 | TR-T13-S.R0080-0 v1.0 |

### 2.1.19 Ver. 4.30

Change history list of Technical Report Ver. 4.30 May 29, 2007

1. Added and Revised Technical Reports

<cdma2000 Technical Report> <cdma2000 Technical Report>

| Document Set of Ver. 4.20 | Document Set of Ver. 4.30 |
|---|---|
| TR-T13-SC.R2001-001-0 v1.0 | TR-T13-SC.R2001-001-0 v1.0 |
| TR-T13-SC.R2002-001-0 v1.0 | TR-T13-SC.R2002-001-0 v1.0 |
| TR-T13-C.R1000-0 | TR-T13-C.R1000-0 |
| NA | TR-T13-C.R1008-0 v1.0 |
| NA | TR-T13-C.R1009-0 v1.0 |
| TR-T13-S.R0023 v2.0 | TR-T13-S.R0023 v2.0 |
| TR-T13-S.R0060-0 v1.0 | TR-T13-S.R0060-0 v1.0 |
| TR-T13-S.R0080-0 v1.0 | TR-T13-S.R0080-0 v1.0 |

### 2.1.20 Ver. 4.40

Change history list of Technical Report Ver. 4.40 Sep 26, 2007

No report is added in this version. The version number was updated due to T64 was revised.

### 2.1.21 Ver. 4.50

Change history list of Technical Report Ver. 4.50 Dec 12, 2007

No report is added in this version. The version number was updated due to T64 was revised.

### 2.1.22 Ver. 4.60

Change history list of Technical Report Ver. 4.60 Jun 6, 2008

No report is added in this version. The version number was updated due to T64 was revised.

### 2.1.23 Ver. 4.70

Change history list of Technical Report Ver. 4.70 Sep 25, 2008

No report is added in this version. The version number was updated due to T64 was revised.

### 2.1.24 Ver. 4.80

Change history list of Technical Report Ver. 4.80 Mar 18, 2009

No report is added in this version. The version number was updated due to T64 was revised

### 2.1.25 Ver. 4.90

Change history list of Technical Report Ver. 4.90 Jul 29, 2009

No report is added in this version. The version number was updated due to T64 was revised

### 2.1.26 Ver. 5.00

Change history list of Technical Report Ver. 5.00 Dec 16, 2009

No report is added in this version. The version number was updated due to T64 was revised

### 2.1.27 Ver. 5.10

Change history list of Technical Report Ver. 5.10 Apr 26, 2010

No report is added in this version. The version number was updated due to T64 was revised

### 2.1.28 Ver. 5.20

Change history list of Technical Report Ver. 5.20 Jul 15, 2010

No report is added in this version. The version number was updated due to T64 was revised

### 2.1.29 Ver. 5.30

Change history list of Technical Report Ver. 5.30 Nov 5, 2010

No report is added in this version. The version number was updated due to T64 was revised

### 2.1.30 Ver. 5.40

Change history list of Technical Report Ver. 5.40 Mar 28, 2011

No report is added in this version. The version number was updated due to T64 was revised

### 2.1.31 Ver. 5.50

Change history list of Technical Report Ver. 5.50 Jul 7, 2011

No report is added in this version. The version number was updated due to T64 was revised

### 2.1.32 Ver. 5.60

Change history list of Technical Report Ver. 5.60 Sep 16, 2011

No report is added in this version. The version number was updated due to T64 was revised

### 2.1.33 Ver. 5.70

Change history list of Technical Report Ver. 5.70 Dec 6, 2011

No report is added in this version. The version number was updated due to T64 was revised

### 2.1.34 Ver. 5.80

Change history list of Technical Report Ver. 5.80 Feb 14, 2012

No report is added in this version. The version number was updated due to T64 was revised

### 2.1.35 Ver. 5.90

Change history list of Technical Report Ver. 5.90 Jul 3, 2012

No report is added in this version. The version number was updated due to T64 was revised

### 2.1.36 Ver. 6.00

Change history list of Technical Report Ver. 6.00 Sep 25, 2012

No report is added in this version. The version number was updated due to T64 was revised

### 2.1.37 Ver. 6.10

Change history list of Technical Report Ver. 6.10 Dec 18, 2012

No report is added in this version. The version number was updated due to T64 was revised

### 2.1.38 Ver. 6.20

Change history list of Technical Report Ver. 6.20 Mar 19, 2013

No report is added in this version. The version number was updated due to T64 was revised

### 2.1.39 Ver. 6.30

Change history list of Technical Report Ver. 6.30 Jul 3, 2013

No report is added in this version. The version number was updated due to T64 was revised

### 2.1.40 Ver. 6.40

Change history list of Technical Report Ver. 6.40 Sep 26, 2013

No report is added in this version. The version number was updated due to T64 was revised.

### 2.1.41 Ver. 6.50

Change history list of Technical Report Ver. 6.50 Dec 10, 2013

No report is added in this version. The version number was updated due to T64 was revised.

### 2.1.42 Ver. 6.60

Change history list of Technical Report Ver. 6.60 Mar 18, 2014

No report is added in this version. The version number was updated due to T64 was revised.